

**PENSION FUND GOVERNANCE TODAY:
STRENGTHS, WEAKNESSES, AND OPPORTUNITIES FOR IMPROVEMENT**

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PAPER ABSTRACT

This paper continues an investigation into pension fund governance started in 1997. It analyzes the findings of a new survey on pension fund governance, to which an international group of 88 senior pension fund executives responded. Survey responses suggest the executives believe they understand the purpose of their pension funds, and are dedicated to seeing that purpose actualized. There are broad perceptions of good organization values and high levels of trust in their pension funds. Formal strategic planning processes are on the rise, resulting in clearer management focus on such issues as resource planning, organization design, and compensation. However, the executives' views on the pension fund oversight function suggest some difficulties here. The selection process for members of the board of governors is often haphazard. Self-evaluation of board effectiveness is the exception rather than the rule. Weak oversight functions lead to difficulties in sorting out the competing financial interests of differing stakeholder groups. They also lead to some organization dysfunction. Specific examples are lack of delegation clarity between board and management responsibilities, board micro-management, and non-competitive compensation policies in pension funds. Specific actions to address these challenges could include the following. Redesign pension contracts to eliminate the 'competing financial interests' problem. Develop templates for the ideal composition of boards of governors, and integrate these templates into actual selection processes. Initiate board effectiveness self-evaluation processes. Achieve clarity between the respective roles of boards and management. Adopt high-performance cultures with competitive compensation policies. The final part of the study reports on the discovery of a generally positive statistical association between governance quality and pension fund performance.

Why this Paper?

The well-publicized misadventures of such major corporations as Adelphia, Ahold, Enron, HealthSouth, Parmalat, Qwest, Tyco, WorldCom, have triggered important new empirical and more conceptual research efforts in the field of corporate governance. A good example of the former is a survey by Graham, Harvey, and Rajgopal of 401 corporate financial executives which indicated that these executives would sacrifice value-creating projects if it meant falling short of the current quarter's consensus earnings estimate, or break up a smooth progression of reported earnings ^[1]. A good example of the latter is a working paper by Roger Martin where he argues that corporate 'short termism' is caused by a fundamental defect in the corporate governance chain, which causes even independent corporate directors to have neither the incentive nor the capability to protect the interests of long-horizon corporate owners ^[2]. The implication of both studies is that corporate owners with long-horizon mindsets need to be pro-active themselves in ensuring that their interests are represented in corporate decision-making processes.

So who are the predominant owners of the shares of public corporations today? Increasingly, they are investment institutions. For example, in his book *The Battle for the*

Soul of Capitalism, Jack Bogle cites a 66% institutional ownership proportion for US equities, the bulk of which represents ownership by mutual funds (28%) and pension funds (26%)^[3]. However, Bogle also notes that not all investment institutions are natural, motivated, long-horizon corporate owners. For example, much of the mutual fund industry is conflicted by agency issues, making them weak candidates for such a role. In contrast, agency issues should be less pronounced in the pension fund sector, as the financial interests of pension fund managers and their stakeholders are generally better aligned than is the case in the mutual fund sector^[4]. Logically then, it is to pension funds that we should look to play the role of motivated, long-horizon corporate owners. However, keen observers such as Peter Drucker and Robert Monks have made the critical point for many years that what may be true in theory, is not necessarily true in practice. Being logical candidates to fill the pro-active, long-horizon corporate owner role is not enough. Pension funds must also understand this to be true, and must be both willing and able to play that role^[5].

All this leads us to the motivation for this paper. Just as corporations need effective governance mechanisms, so do pension funds. Only effectively-governed pension funds can make the logical connection between creating value for their own stakeholders, and acting as pro-active, knowledgeable long-horizon investors. Yet, pension fund governance has not garnered anywhere near the research attention that corporate governance has^[6]. We are aware of only a few published efforts with an empirical dimension. For example:

1. Anthropologists O'Barr and Conley caused a stir with their 1992 book *Fortune and Folly: The Wealth & Power of Institutional Investing*. Based on observing behavior at nine major US pension funds over a two year period, they concluded that the aim of pension fund governance appeared to be focused more on responsibility deflection and blame management than on good governance and creating value for fund stakeholders.
2. Ambachtsheer, Boice, Ezra, and McLaughlin designed a survey that was answered by 50 senior pension fund executives in December 1994 during a symposium titled "Excellence in Pension Fund Management: What Is It?" Asked to estimate the 'excellence shortfall' in their organizations, the median response was a material 66 basis points. Asked to identify the sources of excellence shortfall, the three causes mentioned most frequently were poor decision processes, inadequate resources, and lack of focus or mission clarity.
3. Ambachtsheer, Capelle, and Scheibelhut conducted a predecessor study in 1997 to the one described in this paper. They found some correlation between pension fund governance quality and organizational performance, and identified a number of specific fund oversight and management factors important performance drivers. Governance difficulties similar to those documented in this paper were uncovered. The results were published as "Improving Pension Fund Performance" in the November/December 1998 issue of the *Financial Analysts Journal*.

4. Clark, Caerlewy-Smith, and Marshall have studied the problem-solving capabilities of pension fund trustees in the U.K. and found these capabilities “surprisingly heterogeneous”, with potentially significant implications for pension fund governance.

The paucity of empirical research to date leaves considerable knowledge gaps in pension fund governance and its effectiveness. The goal of this paper is to fill in some of these gaps. What are the strengths of pension fund governance today? What are its weaknesses? What are the opportunities for improvement? Does better pension fund governance lead to better financial outcomes such as investment performance? These are the key questions the paper will address.

One final definitional note before we get into the details of the study. Throughout the paper, we will use the term ‘pension fund governance’ as a broad descriptor covering all aspects of decision-making processes inside pension funds. We will use the more specific terms of ‘oversight’, ‘management’, and ‘operations’ to distinguish between responsibilities and activities typically reserved for boards of governors (or trustees, or directors), responsibilities and activities generally delegated by a board to senior management, and responsibilities and activities generally delegated by senior management to other professionals either inside, or outside the pension fund organization.

Research Design

To gather information on pension fund governance, we designed a survey to be answered by a pre-selected group of senior pension fund executives with titles such as Chief Executive, Chief Investment Officer, Executive Director, VP-Pensions, etc. The common factor among these pension executives was that their funds had supplied return, cost, and risk-related data to *CEM Benchmarking Inc.*, an organization that measures the cost-effectiveness of pension fund organizations around the globe. We received completed surveys from 88 pension executives. For 81 of these 88 respondents, we also had complete sets of fund data ending in 2004. The aggregate assets of these 81 funds amounted to \$1.4 trillion dollars at the end of 2004. Table 1 provides additional information on the characteristics of these 81 funds. Note the sample represents a good mix of funds by both geographical and sponsor-type criteria.

The survey itself consisted of two parts. One part asked the pension fund executives to assign a rank from 6 to 1 to each of 45 statements related to various aspects of the oversight, management, and operations areas of their own pension fund. Each statement was phrased so that the higher the assigned ranking, the more favorable the senior executive’s view was of that particular element or activity of fund oversight, management, or operations. For the 81 completed surveys received for which there was also 5-year fund performance data available from *CEM Benchmarking Inc.*, the 45 rankings were averaged to create a single ‘CEO Score’. The other part of the survey asked two open-ended questions, one about the key oversight challenges the executives

see facing their boards of governors today, and the other about the key management challenges they see themselves facing today.

Table 1 – Characteristics of the Responding Pension Funds at December 31, 2004

Region	% (EW) *	% (DW) **
Australia / New Zealand	4%	1%
Canada	41%	13%
Europe	11%	32%
United States	44%	54%
Sponsor Type	% (EW) *	% (DW) **
Corporate	38%	14%
Public Sector	41%	66%
Other	21%	20%
Size	Median	Mean
Billions of \$USD	\$3.7B	\$17.9 B

* Equal-weighted

** Dollar-weighted

The study will unfold in three parts. We commence by analyzing the responses to the two open-ended questions. From there, we move on to analyze the rankings to the 45 statements about fund oversight, management, and operations. An important part of this analysis will be to compare the 2005 rankings provided as part of this study, with the rankings provided in 1997 by 80 fund executives to the same 45 statements in a prior survey ^[7]. The final part of this study will report on tests for any statistical relationship between the ‘CEO Scores’ representing pension fund organization effectiveness as perceived by its own chief executive, and fund investment performance as measured by *CEM*.

Pension Fund Oversight and Management: Current Issues

The survey posed the following two open-ended questions:

1. *What do you see as the more important oversight issues facing your board of governors (or trustees, or directors) at this time?*
2. *What do you see as the more important organizational issues facing you at this time?*

The survey participant responses to these two open-ended questions are summarized in Tables 2 and 3 below. The original 63 responses to Question #1 can be found in Appendix A to this paper, and the 60 responses to Question #2 in Appendix B.

Given that the two questions were open-ended, it required some effort to create broad response categories, and to fit the individual responses into these broad categories. In the end, four broad response categories were created. Table 2 shows that two of the four were relevant to both the oversight and management functions (i.e., agency/context and investment beliefs/risk management issues). Of the other two, one was relevant only to the oversight function (i.e., oversight effectiveness issues), the other only to the management function (i.e., strategic planning/management effectiveness issues). The proportions of responses falling into the four categories tell an interesting story:

1. Responding pension fund executives think their boards of governors face important issues in three areas: agency/context issues (44% of responses), oversight effectiveness issues (36%), and investment beliefs/risk management issues (20%). We think this represents an astute collective assessment by these executives. Without oversight context, there is no legitimacy. Without oversight effectiveness, there can be no common vision. Without a basic understanding of how capital markets function and how risk should be defined and managed, the oversight function cannot be effective.
2. While a number of the responding pension fund executives believe they themselves have a role to play in resolving agency/context (15%) and investment beliefs/risk management (12%) issues, they see their major challenges lying in the strategic planning/management effectiveness area (73%). Again, we think this to be an astute collective assessment which bodes well for the future of pension fund governance. If the fund's chief executive is not prepared to be accountable for results in the strategic planning/management effectiveness area, no clear organization vision will ever be articulated or actualized.

So what were some of the specific oversight and management challenges mentioned in the survey? That is the question we address next.

Table 2 – Pension Fund Oversight and Management: What Really Matters?

1. What are the more important <u>oversight</u> issues?	<u>Proportion of Responses</u>
a. Agency / context issues	44%
b. Governance effectiveness issues	36%
c. Investment beliefs / risk management issues	20%
2. What are the more important <u>management</u> issues?	<u>Proportion of Responses</u>
a. Strategic planning / management effectiveness	73%
b. Agency / context issues	15%
c. Investment beliefs / risk management issues	12%

Specific Governance and Management Challenges

To repeat, the open-ended nature of the oversight and management questions led to 63 and 60 responses respectively, requiring categorization. Table 2 listed the four broad response categories. Table 3 continues that process on a more disaggregated level for the oversight-related and management-related responses. In Table 3, under ‘agency/context issues’, pension fund executives exhibit a clear awareness of the (sometimes impossible) balancing act DB pension plans typically force upon boards of governors. The reality is that the financial interests of various stakeholder groups in DB plans do not always line up in a nice ‘win-win’ manner. So instead of providing oversight to the pension organization, boards (and to a lesser degree, management) can get involved in sorting out the respective financial interests of retirees, active workers, future workers, and sometimes even those of bond holders, shareholders, or current and future taxpayers. There is also the related question of trying to understand what light (if any) past, current, and future laws and regulations may throw on these matters.

Table 3 – Pension Fund Governance and Management: Specific Challenges

1. Agency / context issues
 - a. Balancing stakeholder interests
 - b. Understanding the legal / regulatory environment
2. Oversight effectiveness issues
 - a. Appropriate skill / knowledge set for the Board
 - b. Clear delegation to management
3. Investment beliefs / risk management issues
 - a. Understanding context-based risk and its management
 - b. Informed ‘investment beliefs’ and their relevance
 - c. Shift to risk budget-based investment process
4. Strategic planning / management effectiveness issues
 - a. Resource planning, organization design, and compensation
 - b. Clear delegation from the Board
 - c. Effective IT-based implementation systems

Under ‘oversight effectiveness issues’, the responding pension fund executives point to two fundamental, related challenges that remain unresolved in large swaths of the pensions world. The first is board competency. The second is the critical requirement for boards to understand the difference between overseeing and managing. The board competency issue results directly from the often-deficient methods through which trustees are elected/selected for pension boards. Because there often is a board competency issue, there is often also a board delegation issue. Boards that do not clearly delegate fund managing to fund management, place the organization and its stakeholders at a serious effectiveness disadvantage^[8].

The board competency issue is often also the source of problems in the ‘investment beliefs/risk management’ area. It is not a question of board members becoming experts in this area. That is not a realistic expectation. However, board members must be capable of

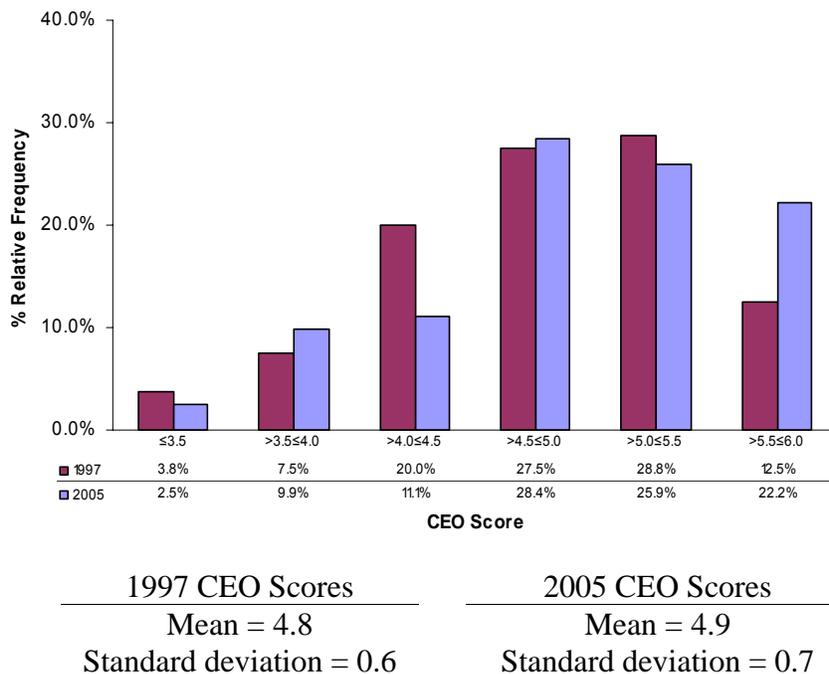
strategic thinking. That means they should insist on clear linkages between the pension contract, how the organization defines, measures, and manages risk, and how outcomes are measured and rewarded. It is up to management to show the board how this is best accomplished through a liability-anchored, risk budget-based investment process ^[9].

We have already expressed the opinion that assignment by the pension fund executives of a high priority to ‘strategic planning/management effectiveness issues’ bodes well for the future. This view is re-enforced by the specific executive focus on resource planning, organization design, compensation, and IT-based implementation systems. In our view, these are indeed critical elements required to build a high-performance culture.

Effectiveness Rankings and ‘CEO Scores’

As already noted, the survey also asked the pension fund executives to assign a rank from 6 to 1 to each of 45 statements related to various aspects of the oversight, management, and operations areas of their own pension fund. Each statement was phrased so that the higher the assigned ranking, the more favorable the respondent’s view was of that particular element or activity of fund oversight, management, or operations. All 45 statements, ranked by highest to lowest 2005 rankings, are attached as Appendix C to this paper. For each completed survey, the 45 rankings were also averaged to create a single ‘CEO Score’ for each of the 81 response sets for which there was CEM fund data. Figure 1 below shows the distribution of resulting ‘CEO Scores’ based on the 2005 rankings, as well as those based on the earlier 1997 rankings to the same 45 statements.

Figure 1 – Relative Frequency of CEO Scores 1997 vs. 2005



With respective means of 4.8 and 4.9, the 1997 and 2005 ‘CEO Score’ distributions suggest a tendency to assign high rankings. This result can be interpreted in one of two ways. The first is that, on average, the pension funds represented in the two surveys really do have, on average, exceptional oversight, management, and operations capabilities. The second interpretation is that there is a tendency in surveys of this nature to rate on the high side. We lean towards the second interpretation, meaning that our analysis should focus on the relative, rather than the absolute values of the statement rankings and overall ‘CEO Scores’. This position is supported by the experience of Capelle Associates with their Organizational Assessment Questionnaire. With nearly 9,000 responses from 35 organizations, the average score on the same six-point scale is 4.9.

So, for example, in assessing what the surveys have to say about what pension fund executives believe their organizations are doing well, and not so well, we should focus on the statements receiving the highest average rankings in the surveys, and those receiving the lowest average rankings. Table 4 below lists the six statements receiving the highest average rankings in 1997 and 2005. Elements like mission clarity, good organization values, and clear performance standards were in the ‘top six’ both the 1997 and 2005 surveys. The three statements dropping out of the 1997 ‘top six’ were: ‘governing fiduciaries do a good job of representing the interests of plan stakeholders’, ‘superior investment performance reduces future contributions’, and ‘employee sub-par performance is unacceptable’. They were replaced by ‘high level of trust between the board and management’, ‘clear fund strategic positioning’ and ‘developing our investment policy took considerable effort and represents our best thinking’.

Table 4 – Six Highest Scoring Statements in 1997 and 2005

Ranking	1997	2005	Ranking
1	I can describe our mission.	I can describe our mission.	1
2	Superior investment performance reduces future contributions.	I ensure the setting of appropriate and understandable performance standards for our investment managers	2
3	Our board of governors does a good job representing the interests of plan stakeholders.	I can describe our values.	3
4	I ensure the setting of appropriate and understandable performance standards for our investment managers.	I can describe our fund’s strategic positioning	4
5	Employee sub-par performance is unacceptable in our organization.	There is a high level of trust between the board of governors and management.	5
6	I ensure the setting of appropriate and understandable values and ethics for employees.	Developing our investment policy required considerable effort and represents our best thinking.	6

Table 5 lists the six statements receiving the lowest six rankings in 1997 and 2005. Remarkably, they are the same six statements, with even the order of the rankings almost unchanged. The strong suggestion is that the selection and evaluation processes for boards of governors were seen to be problematic in 1997, and they continue to be seen as problematic today. It is hard not to link these perceived problems in the oversight function to the other continuing pension fund problem areas suggested by the 1997 and 2005 rankings: board micro management and uncompetitive staff compensation. Table 6 lists the six statements with the largest 1997/2005 ranking changes. The positive news here is that the responding pension fund executives see some improvement over the course of the last eight years in the effectiveness of the fund oversight and management functions, and in their ability to attract and retain desirable employees. A listing of all 45 statements ranked by their average 2005 scores can be found in Appendix C^[10].

Table 5 – Six Lowest Scoring Statements in 1997 and 2005

Ranking	1997	2005	Ranking
40	Compensation levels in our organization are competitive.	Compensation levels in our organization are competitive.	40
41	My board of governors does not spend time assessing individual investment managers or investments.	My board of governors does not spend time assessing individual investment managers or investments.	41
42	My board of governors examine and improve their effectiveness on a regular basis.	My board of governors examine and improve their effectiveness on a regular basis.	42
43	Our fund has an effective process for selecting, developing, and terminating members of the board of governors.	I have the authority to retain and terminate investment managers.	43
44	I have the authority to retain and terminate investment managers.	Our fund has an effective process for selecting, developing, and terminating members of the board of governors.	44
45	Performance-based compensation is an important component of our organization design.	Performance-based compensation is an important component of our organization design.	45

Table 6 – Six Statements with the Largest Score Changes

Ranking	Statement	Score Change
1	I have clearly-written documents describing our mission, vision, values, strategic positioning, and operations and resource plans.	+ 0.55
2	My board of governors examine and improve their own effectiveness on a regular basis.	+ 0.54
3	Superior investment performance reduces future contributions.	- 0.53
4	I can describe our operational plan relating to what we are going to accomplish in terms of quality, quantity, timeliness, and resource requirements.	+ 0.53
5	Employee turnover is low.	+ 0.43
6	Compensation levels in our organization are competitive.	+0.42

The rankings-based findings set out in Tables 5 and 6 are generally consistent with the more qualitative responses also provided by the bulk of the responding pension fund executives that were analyzed earlier in this paper. The problematic issues of boards of governors selection, evaluation, and competency indicated in Table 5 were raised there too, as were some of the consequences. Examples are lack of clarity in delegation from boards to management, lack of clarity in the definition, measurement and management of risk, and board micro-management. The marked 1997/2005 improvements indicated in Table 6 in the rankings of such factors as strategic and operational planning are consistent with the earlier-expressed qualitative emphasis by the pension fund executives on resource planning, organization design, compensation, and IT-based implementation systems.

Governance Quality and Organization Performance

Imagine two pension funds, each with a board of governors. The board of Fund #1 has been carefully selected based on a template that sets out optimal board composition in terms of the relevant collective skill/experience set, positive behavioral characteristics, and an unconflicted passion for the well-being of the pension fund organization and its stakeholders. The board of Fund #2 was randomly selected out of the telephone book. Which of these two boards do you think would get higher oversight rankings for such important tasks as CEO selection and evaluation, clear delegation of authority to management, and self-evaluation of board effectiveness? Which of these two funds will likely generate better organization performance over the long term? Surely we would all agree that the logical answers are Board #1 and Fund #1, and that we would be able to ‘prove’ our hypothesis if we had perfect metrics representing governance quality and perfect metrics representing organizational performance.

What if we only had imperfect quality and performance metrics? Would we still find a positive statistical association between governance quality and organizational performance? We address this question next. The already-calculated ‘CEO Scores’ will be used as proxies for fund governance quality. We have already noted that collectively, these metrics likely overstate governance quality and understate the variance in that quality. Nevertheless, there is likely to be some information content in the relative values of the ‘CEO Scores’. As fund performance proxies, we will use a metric called Net Value-Added (NVA) supplied by *CEM Benchmarking Inc.* NVA is a pension fund’s excess return over its passively-implemented asset mix policy, net of all investment expenses. The NVAs used in the NVA/CEO Score analyses reported below are all annualized, based on four years of continuous experience.

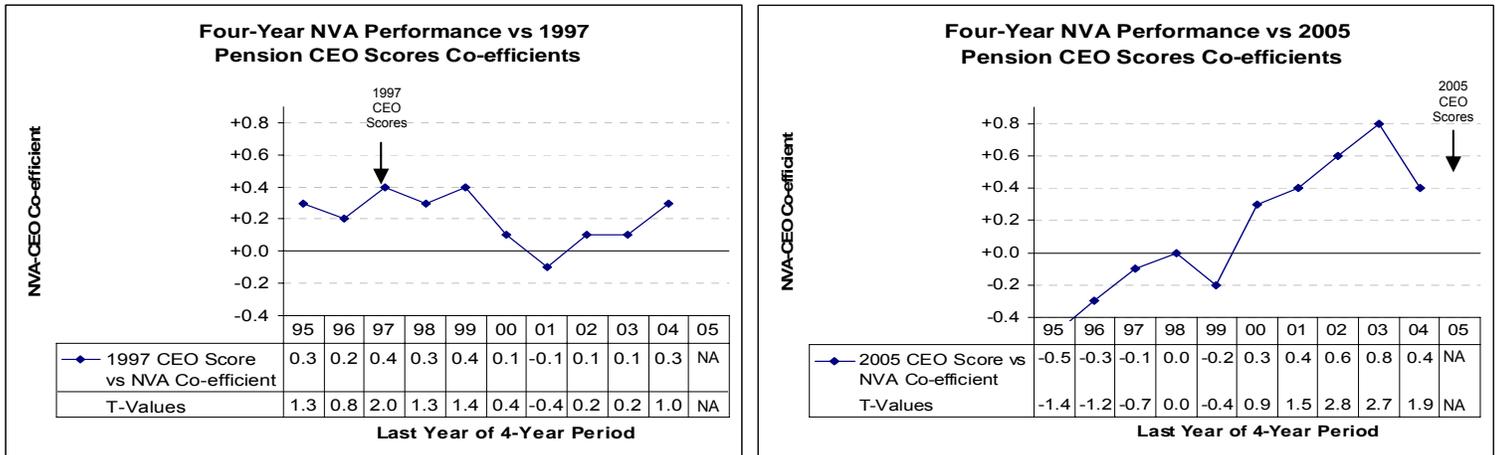
The mean annual NVA in the *CEM* database is 0.2% with a sample standard deviation of 3.0%. This is based on all 3,513 annual NVAs in the database contributed by 666 different pension funds over the period covering 1992-2004. While this dataset does not suffer from the same degree of mean and variance biases as we noted is likely the case with the subjective Pension CEO Scores, all key *CEM* data is supplied by the participating pension funds, including operating costs and policy asset mix benchmarks. So some level of ‘noise’ is likely introduced in calculating the NVA performance metrics. Further, in theory, the NVAs should be assigned risk-related ‘haircuts’. However, consensus on how to best do this has yet to be reached. As a result of these shortcomings, the NVA metrics are also less than perfect ^[11].

Pension CEO Scores Meet NVA Metrics

So what happens when the imperfect Pension CEO Scores meet the imperfect NVA metrics? In other words, does the positive relationship between the Pension CEO Scores and the NVAs that we would surely find with perfect data, come through with our less-than-perfect data? Figure 2 tells the tale. The short answer is that yes, even with imperfect data, the outline of a generally positive statistical relationship between governance and performance emerges. With the 1997 Pension CEO Scores, the NVA-CEO coefficient hits +0.4 twice, first for the four-year NVA performance period ending in 1997, and then again for the four-year NVA performance period ending in 1999. With the 2005 Scores, the NVA-CEO co-efficient hits +0.8 for the four-year NVA performance period ending in 2003, before falling back to +0.4 for the four-year NVA performance period ending in 2004 ^[12].

What intuitive meaning can we give to the time patterns of these NVA-CEO coefficients? Recall that the Pension CEO Score range was effectively from 3 to 6. Multiplying this 3-point ‘poor-good’ gap by an NVA-CEO coefficient of +0.4 leads to a four-year NVA gap of 1.2% per annum. A coefficient of +0.8 doubles the four-year NVA gap to 2.4% per annum. The implication is that the ‘poor-good’ governance gap, as assessed by pension fund CEOs (or equivalents) themselves, has been ‘worth’ as much as 1-2% of additional return per annum, as measured by *CEM*. In our view, these statistical findings likely understate the real ‘value-added’ potential of truly high-performance pension fund governance and management ^[13].

**Figure 2 – Pension Fund Governance and Performance:
Are They Statistically Related**



Further Insights

Today, the 1997 Pension CEO Scores allow us to look at NVA vs. Pension CEO Score experience well after 1997. Note that the statistical significance of the NVA-CEO coefficients based on the 1997 Scores peaks at the four-year NVA performance period ending in 1997 (i.e., at a t-value of 2.0), and generally declines after that. In contrast, given the availability of NVA data since 1992, the 2005 Scores allow us to look at experience well before 2005. Note that the NVA-CEO coefficients based on 2005 Scores are statistically insignificant in the earlier four-year NVA performance periods, and attain statistical significance only when they get closer to 2005, the year the survey was completed. One possible explanation for these patterns is that the quality of pension fund governance has not been stable over this extended timeframe. There is some statistical support for this hypothesis. For the subset of 28 funds for which there were both 1997 and 2005 Pension CEO Scores, the correlation coefficient between the two data sets was positive, but a fairly low 0.5. This is not entirely surprising. Excellence in governance requires high capability consistently applied. To achieve this over extended periods of time is a high hurdle.

The statistical tests described above used all of the four-year NVA data available for the funds in the *CEM* database for which we had Pension CEO Scores. So in this sense the results do not suffer from ‘data mining’ problems. Stated differently, while playing with various subsets of the total database produced some additional statistical results that looked interesting, we have resisted the temptation to try and interpret them. Why? Because it is quite possible that any specifically selected subset results, no matter how interesting, simply represent noise rather than signal. Having said that, we make one exception. One of the cost categories in the *CEM* database is ‘Oversight / Management Costs’, which captures fund costs allocated to the internal governance, management, and

control functions.

A reasonable hypothesis is that funds with higher Pension CEO Scores would invest more in these functions than funds with low Scores. So statistically, we should find a positive relationship between Oversight / Management Costs (OMC) and Pension CEO Scores, after adjusting for fund size. The OMC-CEO coefficient was in fact 1.4 (t-value 3.0). So again, taking the Pension CEO Score range to be from 3 to 6, the implication is that high-scoring funds spend an average 4 basis points (i.e., 3×1.4) more per annum on the internal governance, management, and control functions than low-scoring funds. This is an additional \$4M per year for a \$10B fund. Clearly, the CEOs and boards of governors of the high-scoring funds are putting their money where their mouth is. This is a very encouraging finding.

In Conclusion: Answers and Questions

A key goal of this paper was to address questions about the current strengths and weaknesses of pension fund governance, and identify opportunities for improvement. So what can our study tell us about these issues? We conclude the following:

1. Strengths: the survey responses suggest the 88 senior pension fund executives believe they understand the purpose of their pension funds, and are dedicated to seeing that purpose actualized. There is a broad perception of good organization values and high levels of trust in their pension funds. Formal strategic planning processes are on the rise, resulting in clearer management focus on such issues as resource planning, organization design, and compensation.
2. Weaknesses: the pension fund oversight function continues to be problematic. The selection process for board members is deficient in many cases. Self-evaluation of board effectiveness continues to be the exception, rather than the rule. Weak oversight functions lead to difficulties in sorting out the competing financial interests of differing stakeholder groups. They also lead to organization dysfunction. Specific examples are lack of delegation clarity between board and management responsibilities, board micro-management, and non-competitive compensation policies in pension funds.
3. Improvement Opportunities: redesign pension deals to eliminate the ‘competing financial interests’ problem. Develop templates for ideal boards of governors composition, and integrate these templates into actual selection processes. Initiate board effectiveness self-evaluation processes. Achieve clarity between the respective roles of boards and management. Adopt high-performance cultures with competitive compensation policies.

Another goal of this paper was to study the empirical relationship between governance quality and organization performance. This was accomplished by treating the calculated ‘CEO Scores’ as proxies for fund governance quality, and *CEM*’s Net Value-Added (NVA) metrics as proxies for organization performance. We conclude the following:

1. With perfect quality and performance metrics, a positive statistical association between the two would surely exist.
2. Neither the ‘CEO Scores’ nor the NVAs are perfect metrics. Nevertheless, a generally positive statistical association between the two metrics was identified in the study, with the relationship appearing strongest in the four-year time periods that end close to when the survey-based ‘CEO Scores’ were generated. During these periods, high-‘CEO Score’ funds outperformed low-‘CEO Score’ funds by 1-2% per annum. The poorer NVA-‘CEO Score’ statistical associations in periods well-before and well-after the ‘CEO Scores’ were generated suggests fund governance quality is not stable, but instead, varies over time.
3. The identified positive statistical association between a fund’s internal oversight/management costs and its ‘CEO Score’ confirms that this metric does indeed have information content: it confirms that, on average, high-scoring funds invest more in the internal oversight/management function than low-scoring funds. High-scoring funds are putting their money where their mouth is, so to speak.

We close by posing some questions this study does not answer. What is the true economic value of good pension fund governance? Is there a way to answer this question deductively? What are the best routes to addressing the weaknesses in pension fund governance uncovered in this study? Should government legislation/regulation play a pro-active role? How would that be best accomplished? How should pension fund returns be adjusted for risk? Would proper risk-adjustment change our empirical findings? Our 88 responding fund executives are not a random sample. Their willingness to provide detailed fund data to *CEM Benchmarking Inc.* and to participate in the governance survey, implies they are from the ‘high quality’ end of a much larger pension fund universe. What does this suggest about the governance quality of that much larger pension fund universe? Will better pension fund governance indeed lead to better corporate governance? Clearly, many questions about pension fund governance remain to be answered. Our hope is that the research findings documented in this paper will be a good stepping stone to future research efforts.

NOTES

- ^[1] For the complete Graham, Harvey, Rajgopal article reference, see the references listing below.
- ^[2] Martin’s working paper titled “The Problem with Corporate Governance” can be accessed at www.rotman.utoronto/icpm.
- ^[3] See page 73 of Bogle’s *The Battle for the Soul of Capitalism*.

- [4] Agency costs in the mutual fund sector are the subject of a new Rotman International Centre for Pension Management study titled “Economies of Scale, Lack of Skill or Misalignment of Interest? A Study on Pension and Mutual Fund Performance” by Bauer et al. A working paper version of the study can be accessed at www.rotman.utoronto.ca/icpm.
- [5] Drucker sounded warning bells as early as 1976 in his book *The Unseen Revolution: How Pension Fund Socialism Came to America*. Monks has been a more recent, prolific writer on the subject. See, for example, his recent book (with Alan Sykes) *Capitalism Without Owners Will Fail*.
- [6] An ambitious paper by Merton and Bodie attempts to develop an overall theory of financial system design by bringing together three related theories of finance: neoclassical, behavioral, and institutional. The focus of the institutional theory dimension is to deal with market frictions and agency problems. It stops short of prescribing optimal governance practices and organization structure.
- [7] See the cited 1997 article “Improving Pension Fund Performance” by Ambachtsheer, Capelle, and Scheibelhut.
- [8] A comprehensive framework is provided by Ron Capelle in “Improving Pension Fund Performance: Organization Design and Governance”.
- [9] In the ‘old’ pension management paradigm, boards of governors were expected to express investment policy as a ‘policy asset mix’. There is growing recognition that a risk budget approach based on estimating and managing mismatch risk relative to pension liabilities is part of a superior ‘new’ pension management paradigm.
- [10] The means/standard deviations of the 1997 and 2005 ranking sets for the six highest scoring statements were 5.46/0.84 and 5.48/0.79 respectively. The comparable metrics for the six lowest scoring statements were 3.70/1.80 and 4.05/1.74.
- [11] There are two approaches to assigning risk-based ‘haircuts’ to returns: utility-based and arbitrage-based. The question of which approach is superior is yet to be resolved. For further discussion see Ambachtsheer, “Adjusting Investment Returns for Risk: What Is the Best Way?” at www.kpa-advisory.com.
- [12] The statistical relationships depicted in Figure 2 were calculated by regressing each fund’s Net Value-Added (NVA) against that fund’s CEO Score and asset value on a log 10 basis. NVA and asset value for each fund were averaged over each 4-year period. For a fund to be included in any 4-year period, this data had to be available for all four years.
- [13] We have seen a handful of pension and endowment fund organizations with what we believe to be excellent governance quality characteristics achieve long-term NVA results in the 3+% per annum area.

REFERENCES

Ambachtsheer, Keith, Craig Boice, Don Ezra, John McLaughlin, “Excellence Shortfall in Pension Fund Management: Anatomy of a Problem”, Working Paper, 1995, cited in *Pension Fund Excellence* (by Ambachtsheer and Ezra, John Wiley & Sons, 1998), page 18.

Ambachtsheer, Keith, Ronald Capelle, and Tom Scheibelhut, “Improving Pension Fund Performance”, 1998, *Financial Analysts Journal*, Nov-Dec.

Bauer, Rob, Rik Frehen, Hubert Lum, and Roger Otten, “Economies of Scale, Lack of Skill, or Misalignment of Interests?” Working Paper, 2006, www.rotman.utoronto.ca/icpm.

Bogle, John C., *The Battle for the Soul of Capitalism*, 2005, Yale University Press, New Haven, CT.

Capelle, Ronald G., “Improving Pension Fund Performance: Organization Design and Governance”, 2004, Colloquium on Pension Management, Rotman School of Management, University of Toronto.

Clark, Gordon L., Emiko Caerlewy-Smith, and John C. Marshall, “Pension Fund Trustee Competence: Decision-Making in Problems Relevant to Investment Practice”, 2006, *Journal of Pension Economics and Finance*, 5, 91-110.

Drucker, Peter F., *The Unseen Revolution – How Pension Fund Socialism Came to America*, 1976, Harper & Row, NY.

Graham, John, Campbell Harvey, and Shivaram Rajgopal, “The Implications of Corporate Financial Reporting”, 2005, National Bureau of Economic Research, <http://ssrn.com/abstract=491627>.

Merton, Robert C. and Zvi Bodie, “Design of Financial Systems: Towards a Synthesis of Function and Structure”, 2004, Harvard Business School Working Paper.

Monks, Robert A.G., and Allen Sykes, *Capitalism Without Owners Will Fail*, 2004, www.ragm.com.

O’Barr, William, and John Conley, *Fortune and Folly – The Wealth and Power of Institutional Investing*, 1992, Business One Irwin, Homewood, IL.

APPENDIX A

Survey Question #1:

What do you see as the more important oversight issues facing your board of governors (or trustees, or directors) at this time?

Responses to Survey Question #1 follow.

The increase in audit and reporting standards (the accountants rule the day). Understanding the risks associated with investment management in today's global capital markets. Understanding client needs. How not to get overburdened by governance issues (form over substance) and focus on the big important issues.
Convincing stakeholders (employers, taxpayers, government) that DB structure could continue without converting to DC.
Balancing the interests of beneficiaries / members of the Plan to the costs and risks borne by the employer/sponsor to provide for cost stability and sustainability while protecting the pension promise.
Developing knowledge and skills of our fiduciaries.
Regulatory issues currently under review in Washington, D.C.
Proper funding.
Changeover of trustees and downsizing is impacting on the setting of priorities.
To learn how to stay the course and not overreact to poor quarterly performance. To accept to be guided by Pension Investment Staff's insights.
Better understanding of 'risk' with respect to managing DB and DC plans. Assisting DC plan members in managing their investment and future pensions.
Modernize pension fund governance; split roles for oversight, policy setting and execution. Add financial skills; move further away from sponsor politics. Redesign and communicate pension deal gradually, in order for it to survive.
Board renewal: appropriate involvement in strategy development and execution; ensuring compensation is aligned with results and performance; ensuring risk (enterprise and investment) is understood and managed.
Learning how to govern and obtaining or being required to obtain appropriate credentials.
Education of the trustees on issues facing DB plans going forward.
Maintaining the confidence from participants which is now taken for granted representative ness

from all stakeholders in decision-making.

Disconnect between external directors on Board and senior executives at employer. External directors are asset focused and rely heavily on peer group comparisons. Internal executives can see value in peer group comparisons as a point of interest, but that they should not be used to manage the plan. Pension plan should be managed like an insurance company, but it is not. Liabilities are managed by Corp HR and assets are managed by Corp Treasury. Corp HR believes this to be good governance; however, I don't agree.

Obtaining and maintaining appropriate pension/savings knowledge to effectively perform role.

Ensuring that new pension benefits will be implemented thoroughly by the organization. Ensuring that possible new pension regulation on investments will not un-stabilize board composition.

Pension fund governance in general, responsible board, managing directors.

Our governance models are changing with increasing involvement from plan stakeholders (unions) including joint trusteeship for one plan. This is causing a realignment of roles and responsibilities with the associated changes and adjustments to the status quo. Of particular note is the required shift in who makes the investment decisions.

Clean delegation of authorities in governance structure (oversight vs. management) in order to facilitate implementation.

Maintenance of political independence. Responding to expanding universe of fiduciary responsibilities.

Continuity of board process as current Board Chair is replaced by a relative newcomer to the Board.

Long term viability of the plan sponsor company.

Article X of ABC Act establishes fiduciary responsibilities. The administration of the pension plan is entrusted to ABC Co. However, the Company alone shall have, as trustee, the management of the retirement fund. That is an exception in the province/state of Z, where usually, established by Supplemental Pension Plan Act, the total fiduciary responsibility (administration of the plan and management of the retirement fund) is entrusted to another body. As a consequence of ABC Act, board members entitle the fiduciary responsibility regarding the stakeholders as well as the fiduciary responsibility regarding the shareholder, province/state of Z of the government. The more important governance issue facing our board members is the good execution of their double role.

Re-evaluating asset/liability strategy.

Contributions of DB program with appropriate balance of corporate issues (risk control, balance sheet and income statement impacts) and our investment policy which maintains a focus on the beneficiaries. Effective strategy and structure for DC program.

The disconnect between Plan and Fund. Our Pension Fund Board of Trustees are not PLAN trustees only FUND trustees and have no responsibilities on this liability side. So it only comes together at the highest level (Board of Governors).

Balance between employee and employer representatives to be maintained. Majority liabilities with retirees without direct representation on the board.
Our board needs to move to a policy governing style, delegate more to staff, understand risk better and develop a shared understanding with staff on our investment beliefs.
Ensuring that the organization is staffed by sufficiently talented people to meet our mission.
Understand and approve a portfolio construction that better meets the objectives of all stakeholders. Approve the use of alternative investments to help achieve the portfolio construction objective. Insure that the appropriate reporting and control procedures are in place.
Risk Management described / defined at all levels of the pension management process. Depiction of exposures and risk budgets to quantify measure and address areas for improvement.
Changes in regulations as well as accounting rules are putting emphasis on short term volatility over long term returns. It may push organizations out of DB plans.
We need to develop an active, empowered plan sponsor group. Governance responsibilities in our plan are unclear, accountabilities are ill-defined. We have inadequate control over our administrative and investment service providers. Our Board is too large and too inexperienced.
With almost certain turnover among several trustees with 1-2 years (33 to 50%), educate, train and equip new trustees to understand the organization and find ways for them to embrace their fiduciary role and feel they add value. In lower return/rising contribution rate environment, to maintain member support and confidence which in turn enables organization to withstand anticipated pressure for more control by elected officials.
Strengthening the board: More fund management competence, more time/focus on such issues.
Managing the risks of securing the pension obligation.
Working through the current political environment to continue providing excellent customer service and benefits to our members and retirees.
Writing the latest investment policy statement, increasing self-valuation of our governance processes and finalizing the formal review of our allocation of duties within the organization stakeholder.
Getting right governance structure and delegations in place.
Integrating funding and investment policy implementation. Understanding and utilizing new and sophisticated investment strategies. Breaking the "herd" mentality and adopting new funding and investment business models.
The single biggest issue for the fiduciary committee is how to handle the inherent conflict of interest arising from the 401(k) plan's offering and subsequent investment into company stock.
Developing a meaningful funding policy in light of the asymmetry of risks faced in a DB plan.
Timely appointment of experienced directors / fiduciaries.
Obtaining the necessary licenses under new legislation.

Becoming educated in alternative investments to become sufficiently informed on whether or not to invest in alternatives.
Making sure that the fiduciaries, and the Board of Directors, understand their roles and responsibilities in what is a changing landscape.
Potential business expansion areas may not be aligned with traditional ongoing governance roles.
Health care stabilizations funding. Remaining neutral to broker/manager influences.
Company stock in the 401(K) plan.
Our governing board is small (4 members) and has very competing corporate priorities. They are also transitioning as a group, away from much of the more detailed manager level decisions to a more strategic level, not necessarily an equal transition for all.
Gaining relief from statutory restrictions on types of securities fund can invest in. These restrictions represent arbitrary limitations on the organizations and governing fiduciaries actions to manage the funds in the best interest of beneficiaries.
Deciding on terminating the plan - only 34 active members. Unable to get authority to send out an RFP for legal advice re termination of plan.
Dealing with uncertainty of legislative and accounting rule as it affects asset mix.
Get to think about "Investment beliefs".
Matching of assets and liabilities Use of alternative "non vanilla" asset classes to further diversity plan.
Clarification of responsibilities and accountabilities for fund decisions between the governing fiduciaries and the pension investment team.
Setting education standard and qualification standard for themselves Establishing levels of discretion for investment staff. Raising the level and function of Trustees from daily management roles.
In our plan, funding deficits are dealt with only by equal contribution increases for employers and active members--employees. Pensioners are exempt from this make up process and benefit reductions, either accrued or prospective are not even contemplated as an option. The risk with this one dimensional solution is that the plan becomes unaffordable for both employers and employees.
Review current funding philosophy and strategies better matching of assets and liabilities develop a better orientation/selections process for trustees.
Having sufficient knowledge to take intelligent decisions on Asset Mix.
Long term strategic direction and risk management. We have moved to Policy Governance which has greatly enhanced performance and clarity.
Delegation to appropriate staff. Willingness to abandon day-to-day decisions to staff or to sub committees.

APPENDIX B

Survey Question #2:

What do you see as the more important organizational issues facing you at this time?

Responses to Survey Question #2 follow.

Attracting the right talent and managing the team. (I think there is a lack of management and leadership skills in this industry. Lots of CFAs with, 10 years experience but lacking management skills. Not getting overburdened by bureaucratic oversight. The amount of time spent on oversight has increased at the expense of insightful investment thinking and management.
Succession planning as Boomers age and from management positions. Incentive arrangements for new management, investment staff. To keep the Investment Office independent and objective in the face of political pressure.
Greater cost stability and predictability re: pension costs.
Regulatory issues currently under review in Washington, D.C.
Proper tools to do our work.
Generally we are very thin in terms of resources and backup, as our trustees will not allocate the dollars to acquire additional resources. On the investment side we are thin and resources/budgets are constrained. Continuous and shared problems with other plans----solvency. Returns have been very good but those interest rates keep falling!
To reach some stability in the set-up of the Pension Investment Department and to staff it properly.
Get a competent CEO. Within investments: enforce and live up to shared values on return, trust, simplicity and control. Move away from micro-optimization towards achieving attractive long-term returns that fits with ARP competitive analysis.
Attracting and retraining the talent and experience necessary to execute our investment strategy.
Getting the Trustees to a Macro level and allowing management to run the organization.
Reallocation of existing staff to meet diversifying needs.
Shifting from asset from an investment department operating within a broad framework to a setting with liabilities and a risk budget as decisive factors.
Pension plan should be managed like an insurance company, but it is not. Liabilities are managed by Corp HR and assets are managed by Corp Treasury. Corp HR believes this to be good governance; however, I don't agree.

Maintaining quality staff with appropriate experience. Staying abreast of the current trends (ahead of the curve). Balancing time to read job-related material that may provide valuable insight with staying involved in the current operation to get value today.
Implementation of new pensions benefit legislation in software systems.
A change in investment objectives sometime in the next decade, and getting our stakeholders to reach a consensus about these objectives.
Cost effectiveness. Focus. Product development, pension-deal design. Keep innovation alive.
Managing stakeholder expectations and meeting their needs in an efficient way. We need to resolve the policy and operational roles brought about by the above noted changes.
Managing the asset-liabilities GAP.
Compensation for employees - as a public fund, it is difficult to remain competitive. Keeping up with other growing liabilities. Flat stock market - implications for portfolios.
Staffing: The Complexity of the current portfolio requires at least one additional staff person focused on investments. Current assets cannot support this added expense without increasing expense ratio target.
Reorganizing to deal with greater resource requirements in Compliance and Risk Management function.
To recruit and keep quality human resources in the competitive investment sector is a challenge in a para-public organization like Company ABC. As long as the fund management team is generally subject to Company ABC internal administrative standards (except for salary where we have special conditions) and as long as our team do not have legally independence (through a subsidiary structure for example) it is difficult to be competitive with other portfolio management organizations. It is always a challenge to compete with the investment labor market conditions.
Inadequate resources.
Succession of staff retention given slower fund growth and moves to DC focus.
Ability to achieve required return - aggressive target - no internal staff very low risk profile.
Rapidly changing legislation does not take implementation and communication issues seriously. Slow decision process on investment policy.
Accomplishing the objectives in the above question.
Complexity of investment arrangements. Organizational capability to manage these arrangements.
Insuring that we have the human resources, and the systems and culture to achieve our objectives of performance, better portfolio construction and better working interface with the PFC of the Group.
Channeling investment resources to target new initiatives.
There is lack of clarity about the required level of investment management resources, and the investment management resources are likely inadequate.

Succession planning for significant turnover of investment and senior management staff over next 1-10 years. Implementation of a macro risk budgeting approach for the entire organization's portfolio (takes buy-in and acceptance by all asset classes). Balancing a desire to be relatively conservative investment organization that knows what it can do best and does it, with selectively deciding which new investment instruments or strategies to pursue to add alpha.
Even more focus on the investment/business side - having operations mainly outsourced and streamlined.
Focusing our resources on the delivery of exceptional results.
Mitigating a UAAL of over \$1 billion through investment performance.
Being able to employ the appropriate people.
Operating without a distinct staff CIO model. Supplementing traditional investment consultant structure with other strategic experts. Or, developing a new business structure based on commingling assets from several pension plans into a master trust that could retain professional investment staff.
Easily it's the balancing of stakeholder interests in what is still a difficult period for pension plans.
Managing a growing / varied stable of investment managers / strategies with limited staff.
The sponsor's understanding of what constitutes good performance.
Managing a major succession plan and restructuring.
Hiring, firing & retaining managers. Conducting an asset/liability study to determine what alternative investments to invest in.
Cross-department coordination (e.g., accounting, asset managers) is always trying, but that's true in most large organizations.
Balance between investment management and organization management.
Balance of resources - rate of return vs. actual cost ;health care provision to resources.
Implementation on a new Pension Administration System. This new system will change virtually every process in the organization excluding investments.
Continued challenge of generating decent returns in a low return environment. Transitioning from An absolute return orientation to a liability investing orientation. Managing an increasingly complex portfolio.
Developing greater skill in the investment arena to more effectively deal with challenges of low return environment.
Finding someone to replace me in the next two years (Have been with the fund since 1976)
Ageing senior investment management team.
Understaffing: now 2 people run €17bln. Board finds it difficult to hire extra people in these difficult economic circumstances. It is an argument with which I disagree.

Do we have the right level of delegation to management and pension plan? Do we have adequate resources to managing the pension investment process.

Modify compensation to better alignment on fund's objectives Focused time and efforts on important matters related to the financial health of the pension plan.

Unfunded Liability Value and role of a Defined benefit plan Formal Trustee education and qualifications. Reducing the huge level of political influence in all types of asset pools. The blending of social demands with investment results.

The composition of boards is sub optimal. Boards must either have the required expertise, i.e. be the experts or professionals, or delegate decision making authority to those who have the technical competence. Ensuring boards are representative of various stakeholders and that such representatives can be trained/educated to get the required skills is nice if it would work, but it doesn't. Representative boards are political by nature. The cost of a political and resulting lay focus is lower levels of funding. Another issue is the difference between policies and procedures as they exist on paper (see question 15) and the less visible, from a survey perspective, actual practices and behaviors. Just because there is a clear allocation of duties doesn't mean boards will abide by them. Boards that get into the kitchen, and worse, don't leave, are a major cause of sub optimal investment performance, and probably, also, inappropriate actuarial valuations; usually too aggressive, but sometimes too conservative.

Succession planning.

Substantial changes in Asset Mix will lead to organizational change.

Risk Management and Corporate Structure. Better assessment of internal costs and cost allocation for pricing and strategic planning purposes. Global investment markets/opportunities vis-à-vis aging US population, Social Security, etc.

Inadequate staffing levels to effectively manage the society's affairs. Succession planning.

APPENDIX C

<p>All 45 Statements Ranked from Highest to Lowest Average Score, Based on the 2005 Responses</p>

2005 Rank	1997 Rank	Statements
1	1	I can describe our mission (why we exist).
2	4	I ensure the setting of clear, appropriate, understandable and well-communicated performance standards for our external investment managers.
3	10	I can describe our values (how we work together).
4	13	I can describe our fund's strategic positioning (how we provide better value to stakeholders than alternatives).
5	12	There is a high level of trust between my governing fiduciaries and the pension investment team.
6	11	Developing our asset mix required considerable effort on the part of myself and the governing fiduciaries and it reflects our best thinking.
7	25	I can describe our operational plan (what we are going to accomplish in terms of quality, quantity, timeliness and resource requirements).
8	22	Employee turnover within the pension fund organization is low.
9	3	My governing fiduciaries do a good job of representing the interests of plan stakeholders.
10	16	I can describe our vision of where we should be in the future.
11	14	There is a clear allocation of responsibilities and accountabilities for fund decisions between the governing fiduciaries and the pension investment team.
12	6	I ensure the setting of a clear, appropriate, understandable and well-communicated framework of values and ethics for our employees.
13	18	We examine and improve our internal processes on a continuous basis.

14	19	Those reporting directly to me understand and share our vision, mission, values, strategic positioning, operation plan and resource plan.
15	7	People in our organization do what they say they will do.
16	9	People in our organization collaborate well on teams and projects.
17	24	My governing fiduciaries approve the necessary resources for us to do our work.
18	17	I ensure the setting of clear, appropriate, understandable and well-communicated performance standards for our employees.
19	2	My superior investment performance reduces the future contributions of the underwriters of the pension promise (usually company shareholders or taxpayers for DB plans).
20	15	My governing fiduciaries set a clear, appropriate, understandable and well-communicated framework for values and ethics.
21	31	My governing fiduciaries hold me accountable for our performance and do not accept sub par performance.
22	29	I can describe our resource plan (obtaining and optimally utilizing the required human, financial and information technology resources).
23	5	I ensure that our organization does not accept sub par performance from our employees.
24	21	My organization uses its time efficiently (well focused and does not waste time).
25	8	My superior investment performance enhances benefit security and the potential for higher pensions for plan participants.
26	32	My governing fiduciaries understand and share our vision, mission, values, strategic positioning, operation plan and resource plan.
27	23	My organization uses its time effectively (deals with the right issues).
28	35	My governing fiduciaries have good mechanisms to understand and communicate with plan stakeholders.
29	39	I have clearly written documents describing our vision, mission, values, strategic positioning, operational plan and resource plan.
30	30	My governing fiduciaries do a good job of balancing overcontrol and undercontrol.

31	33	My governing fiduciaries set clear, appropriate, understandable and well-communicated standards for our organizational performance.
32	20	My governing fiduciaries and related committees use their time efficiently (focused and do not waste time).
33	26	I ensure that the organization has a good process for selecting, developing and terminating employees.
34	27	Managing the pension fund is perceived to be an important part of our sponsoring organization(s).
35	28	My governing fiduciaries and related committees use their time effectively (deal with the right issues).
36	38	I have the necessary people and budget to do the work.
37	34	I have the necessary managerial authority to implement long term asset mix policy within reasonable limits.
38	36	My governing fiduciaries have appropriate turnover (neither too high nor too low).
39	37	My governing fiduciaries have superior capabilities (relevant knowledge, experience, intelligence, skills) necessary to do their work.
40	40	Compensation levels in our organization are competitive.
41	41	My governing fiduciaries do not spend time assessing individual portfolio manager effectiveness or individual investments.
42	42	My governing fiduciaries examine and improve their own effectiveness on a regular basis.
43	44	I have the authority to retain and terminate investment managers.
44	43	Our fund has an effective process for selecting, developing and terminating its governing fiduciaries.
45	45	Performance based compensation is an important component of our organizational design.