

July 2002

**PCA Research Brief:  
A Survey of Asset/Liability Practices and Thinking**

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## **PCA Research Brief:**

# **A Survey of Asset/Liability Practices and Thinking**

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# A Survey of Asset/Liability Practices and Thinking

## Introduction

The asset allocation process continues to be one of the most important decision processes facing plan sponsors, particularly today as dramatic changes in the investment markets continue to unfold. But, just because the asset allocation process is important by no means implies that it is straightforward or easy to execute. The process itself is full of simplifying assumptions, forecasting error, and complexities that often surprise even the most seasoned practitioners.

Given these issues, PCA surveyed several large plan sponsors about their own approaches to the asset allocation process and what they are thinking about as the investment markets evolve toward a more challenging season of potentially lower investment returns across all asset classes. This research brief summarizes the findings of this survey.

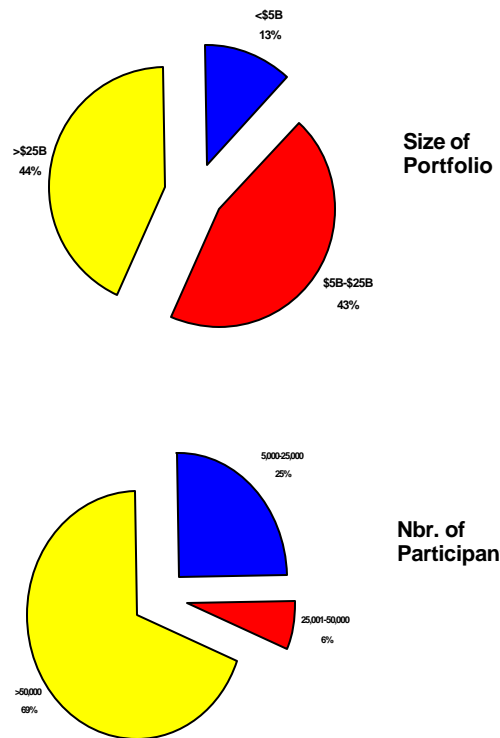
## Description of the Survey

PCA surveyed fifteen pension funds that, in aggregate, held assets totaling approximately \$580 billion as of 12/31/02. The survey contained twenty questions covering (i) basic descriptive information on each plan, (ii) several questions on methods used to conduct the asset allocation policy-setting process, and finally (iii) responses to questions relating to a plan sponsor's perception of the capabilities of existing asset allocation methodologies. The next several sections highlight the survey's results.

## Characteristics of Survey Respondents

The survey included generally very large funds (see Exhibit 1)

**Exhibit 1:**  
**Portfolio size and participant size of survey respondents**

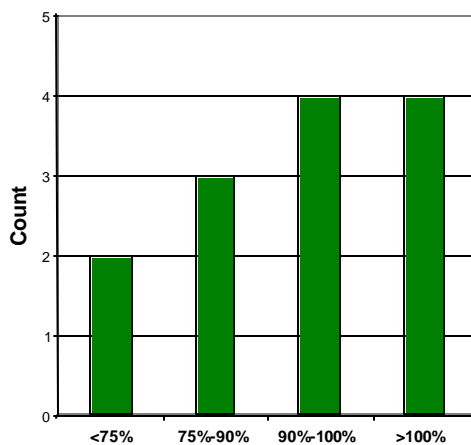


In addition, all but one of the fifteen respondents were public funds. Ten of the respondents were state-level plans.

The financial conditions of the respondents were mixed. The respondents' most recent ratios ranged from two plans that had funded ratios of less than 75% to several plans having

ratios in excess of 100% (see Exhibit 2). Given recent market trends, PCA expects funded ratios to decline further

**Exhibit 2:  
Range of funded ratios**



**Trends in Strategic Portfolio Structure**

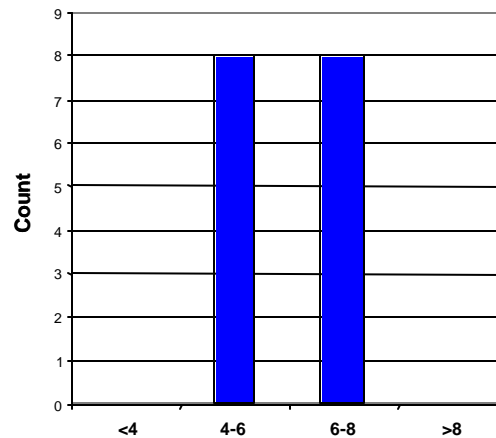
Asset allocation policy is the established proportional allocation of an investment portfolio across a spectrum of different asset classes. In theory, such an asset mix should produce a unique investment return and risk pattern. The concept of diversifying across different asset classes is intended to enhance the risk-adjusted return of the entire portfolio.

Over time, plan sponsors consider and reconsider expanding or reducing their allocations to each asset class, as well as deleting or adding specific asset classes to the mix of asset class alternatives. One challenge plan sponsors face is arriving at an ideal number of asset classes that (i) offers a

high likelihood of producing attractive risk-adjusted return benefits and (ii) is not too burdensome in terms of complexity and actually putting the investment structure in place.

Interestingly, our survey respondents have found what appears to be an acceptable “middle ground” with regards to strategic portfolio structure (see Exhibit 3).

**Exhibit 3:  
Number of asset class utilized**

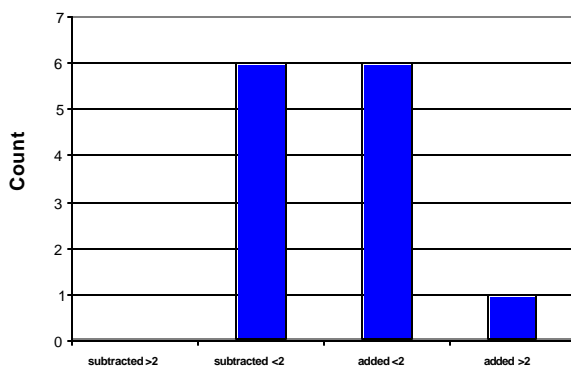


The number of asset classes utilized, for strategic asset allocation purposes, ranged between four and eight. This result indicates that the survey respondents have attempted to manage the complexity of the single-most important strategic investment decision by keeping the number of asset classes at a manageable level. This practice is noteworthy given that the investment industry is continually introducing new “asset classes” for consideration and/or continually requesting that plan sponsors “slice-and-dice” their portfolios to incorporate the latest investment product innovations.

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History has shown that plan sponsors are apt to add and/or delete asset classes to pursue strategic opportunities (see Exhibit 4).

**Exhibit 4:**  
**Number of recent asset class adjustments**



Over recent periods, plan sponsors have made minor adjustments to the asset classes considered for policy. Six plan sponsors have reduced their mixes by 2 or fewer asset classes while six have increased their asset mixes by 2 or less. Only one respondent added more than two asset classes over recent asset allocation studies.

Asset classes added by the survey respondents include: private equity, high yield bonds, and emerging markets equity. Such activity represents plan sponsors' continued search for incremental risk-adjusted returns.

Interestingly, the overwhelming majority of asset class deletions involved either international or global fixed income, largely due to significant disappointments experienced in these asset classes over the most recent investment cycle. Complementing this activity, two

respondents also eliminated currency-related programs.

What may be more interesting is what the respondents have chosen *not* to do. Across the board, no plan sponsor has added hedge funds as a *strategic* asset class. While a few plan sponsors may be investing in hedge funds, it is coming at the sub-asset class or tactical levels rather than the strategic policy level.

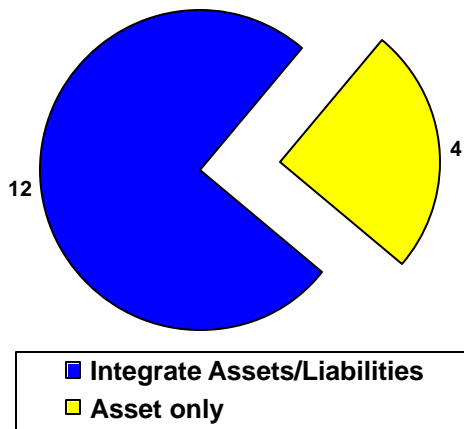
### **Incorporating Liabilities in the Asset Allocation Policy Process**

Over the last several years, executing integrated asset/liability analyses during the asset allocation policy-setting process has become a more frequent practice.

In this survey, the trend was no different, particularly among "hybrid" plans. Six of the survey respondents indicated that their plans utilized "upside participation" benefit structures. Of those, five indicated that they utilized integrated asset/liability analyses. This result impacts the survey's integration findings when analyzed across all respondents.

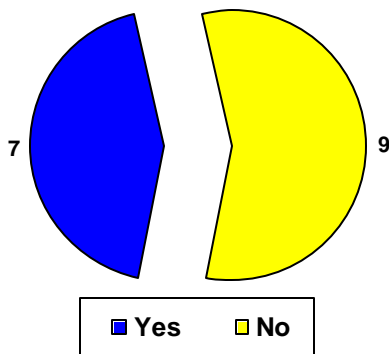
In total, three quarters of all plans utilized some form of asset-liability integration framework in their asset allocation process. The other one-quarter of the survey sample utilized an asset-only framework. Within this latter group several sponsors sought portfolios that exceeded a minimum target rate of return, typically equivalent to their actuarial hurdle rate (see Exhibit 5, next page).

**Exhibit 5:**  
Split between A/L integration and asset-only



Surprisingly, while the majority of plans undertook integrated studies, the majority of respondents believed such a practice exceeded their fiduciary requirements (see Exhibit 6).

**Exhibit 6:**  
Is A/L integration a fiduciary necessity?

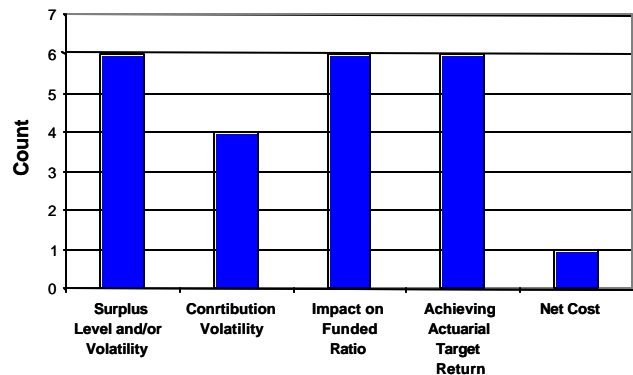


This split viewpoint reflects evolving dynamics in the plan sponsor universe.

Some advocates believe that plan trustees are responsible for setting fiduciary policy with respect to asset/liability management, which reflects the overall financial condition of the pension plan (see [Gelderman]). On the other hand, there are many proponents that have argued that erroneous assumptions imbedded in the process may result in a sub-optimal policy (see [Michaud], [Liebowitz]).

There are also varying opinions about the appropriate overall objective of an asset allocation policy. Most evident was that the emphasis tended more toward maintaining the financial condition of a pension plan versus minimizing the periodic impact of plan costs upon the sponsors of the plan (see Exhibit 7).

**Exhibit 7:**  
Most important financial condition measure\*



\*Respondents could select multiple items

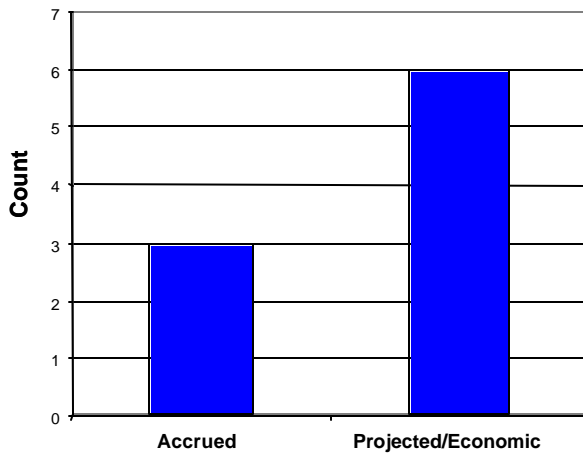
Interestingly, managing contribution volatility and/or net costs took a back seat to managing a plan's surplus, maintaining its funding ratio, or having the portfolio achieve its long-term return objectives.

Such viewpoints appear consistent with plan

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sponsors' expanding viewpoints of how best to measure plan liabilities (see Exhibit 8).

**Exhibit 8:**  
Liability measure used in A/L studies

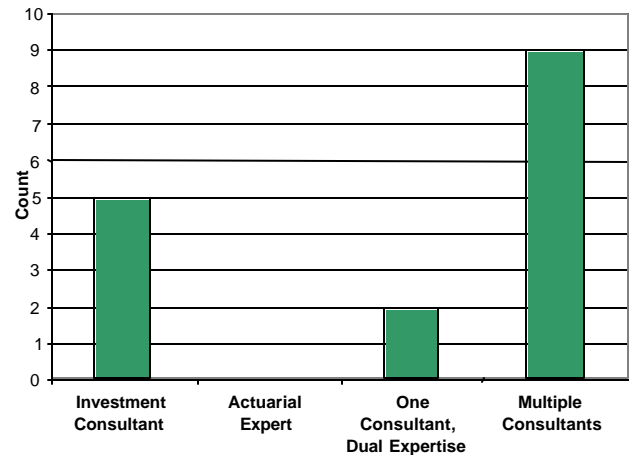


As Exhibit 8 highlights, there is a trend for incorporating a broader definition of liabilities in the asset/liability policy-setting process. What is critical to understand, however, is that as the definition of liabilities is broadened and lengthened, the estimates themselves become less precise and subject to a higher degree of reliance on specific assumptions. In such cases, while such analyses can prove highly informative, they may prove less reliable for policy-setting purposes.

Reflecting the trend of dealing with more complex liability issues, plan sponsors appear to be moving to broadening the level of expertise they utilize during the policy-setting process (see Exhibit 9, next column). More than half of the plan sponsors surveyed indicated they use more than one consulting expert during the policy-setting process and no respondent addressed the asset allocation policy issue in isolation. In addition, external investment expertise was always utilized and,

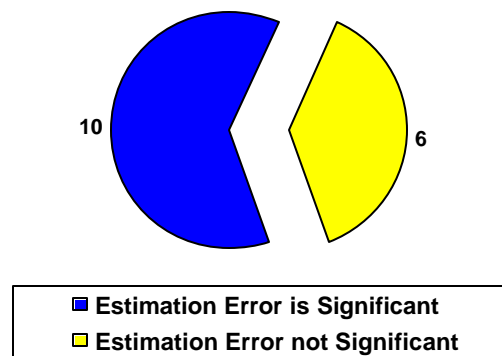
more often than not, actuarial expertise and investment expertise come from different sources.

**Exhibit 8:**  
Consulting formats used in A/L studies



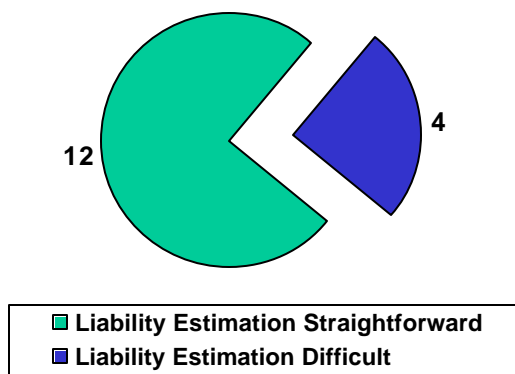
This broadening of expertise utilized during the asset allocation policy-setting process is one approach to monitoring and managing the imperfections associated with the process. In fact, survey respondents believe this format is successful because while most indicated that estimation error is significant (Exhibit 9),

**Exhibit 9:**  
Plan sponsor view of estimation error



they also believe that the estimation process is relatively straightforward and leads to reasonable results (Exhibit 10).

**Exhibit 10:**  
Plan sponsor view of liability estimation



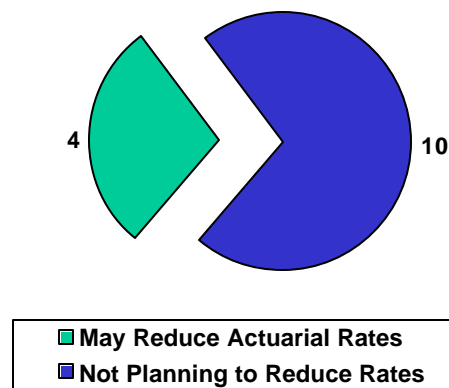
### Plan Sponsor Response to Recent Investment Environment

A significant amount of debate has been initiated by the media on how pension funds are responding to the bearish trends that are unfolding in the investment markets. The focus has been on how corporate plans are adjusting the return/discount rate assumptions associated with the pension plan. A natural dichotomy exists due to the fact that some corporate plans use these assumptions to manage earnings but, at the same time, must reflect the reality of trends exhibited in the markets. In the public sector, reduced rate assumptions could very well lead to increased taxes at a time of significant economic uncertainty.

To gain an understanding of this trend within our survey, we asked whether the respondents

were adjusting their actuarial rate assumptions (both the long-term investment growth rate and/or the liability discount rate) to reflect current market conditions. The overwhelming majority of respondents indicate that they are not planning to adjust these assumptions (Exhibit 11).

**Exhibit 11:**  
Plan sponsor response to changing markets



This finding indicates that, consistent with the anecdotal evidence, plan sponsors are allowing the markets to play out a bit further to see if equity returns continue to remain low.

### Conclusion

Of late, there has been growing discussion about asset allocation policy-setting practices — not only because of current market conditions, but from a questioning of current methodologies as well. This survey reviewed the practices and thinking of a limited number of larger plan sponsors on these matters. In summary, current trends in this area of pension fund management appear to be:

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- Nearly all pension funds are integrating asset and liabilities, in some form, into their policy setting process;
- The definition and measurement of liabilities is broadening;
- Plan sponsors tend to prioritize the maintenance of a pension plan's financial condition over the periodic volatility of plan cash flows;
- Plan sponsors believe (either rightly or wrongly) that their processes and procedures address the inherent flaws in the assumption-setting process;
- One method utilized to address these issues is the utilization of multiple practitioners with, hopefully, competing viewpoints;
- Finally, the survey's respondents have not adjusted their actuarial assumptions in light of the significant volatility experienced in the investment markets over the last investment cycle.

We hope that these findings, at the margin, will promote discussion among our clients and other pension funds as best practices within this key area of investment decision-making are contemplated.

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