ASSET ALLOCATION/BENCHMARK REVIEW

INTRODUCTION

To assist The Regents with their role of oversight of investment assets, the following commentary* on structuring fund risk may be helpful. It is a top down approach to asset allocation that flows from The Regents’ overall goals for its funds.

The fund’s objectives flow through a pyramid of benchmarks that establish both goals and accountability. At the top of the pyramid is a policy benchmark. This benchmark embodies The Board of Regents’ views regarding issues such as: asset performance and risk, surplus control, spending rate, performance relative to a peer group, and any other critical standards. The policy benchmark describes the target allocation in broad terms but does not reflect any special market views.

The Regents, over the years, adopted the following general policy guidelines:**
1. Long term focus
2. Equity ratio not less than 60%
3. Fund goal to beat inflation and the median return of our peers
4. Focus on financially strong companies, quality assets

Performance relative to the policy benchmark is the direct responsibility of the Investment Committee. To carry out this responsibility, the Committee may develop a strategic benchmark. This benchmark will likely be more detailed than the overall policy benchmark. For example, “equity” can be subdivided into subclasses such as: large and small-cap, and international. The strategic benchmark may also express certain long-term market views, such as: maintaining the highest percentage of equity exposure to the total fund due to their presumptive return superiority, the benefits of international diversification, or the dependability with which spreads can be captured on non-Treasury bonds. This benchmark may thus incorporate some long-term “tilts,” or deviations, relative to the policy benchmark. Some of these “tilts” may be encouraged by the effect on the total fund, i.e., improving the reward/risk ratio of an asset class, viewed as achievable, within a total portfolio context.

** Source – Authorities of the Treasurer
FUNDAMENTAL OBJECTIVES

The Regents have set two fundamental objectives for their funds:

(1) **Maximize Assets.** Pension and endowment funds traditionally seek to maximize returns, subject to some measure of risk. The Regents have stressed maximizing real long-term total return while assuming appropriate levels of risk.

(2) **Performance Relative to Peer Group.** Interfund comparisons are another common performance measure. Peer group performance compares the returns achieved by investors with similar objectives, concerns, expertise, and market opportunities. The Regents have stated that their funds should beat inflation and the median of their peer groups. The Regent’s peer groups are Capital Resource Advisors for both balanced funds, Cambridge Median for GEP and Wilshire Associates Large Pension Plan Median for UCRP.

The following two objectives may also be included:

(1) **Surplus Performance.** The purpose of pension funds is to pay benefits to participants. Pension fund performance, therefore, should be evaluated in terms of benefit security and meeting the actual rate of return which for UCRP is currently 7 ½%.

(2) **Endowment Spending Performance.** The purpose of endowment funds is to pay a fair distribution of asset growth to beneficiaries. Fund returns should be viewed in terms of two somewhat conflicting goals: growth of principal and a growing payout stream. Currently, the Regents’ GEP spending rate is 4 ¾% of a 60 month moving average of asset value.

In each of the above areas, fund objectives must be quantified so that they reflect reasonable capital market assumptions.
THE POLICY BENCHMARK

The policy benchmark is typically expressed as a simple mix of standard market indexes.

Figure 1. The Policy Benchmark

<table>
<thead>
<tr>
<th>Fundamental Objectives</th>
<th>Pension Surplus</th>
<th>Endowment Spending Rate</th>
<th>Peer Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximize Assets</td>
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<tr>
<td>Peer Group</td>
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Policy Benchmark*

60-75% Equity 25-40% Bonds

S&P 500 Lehman Long-Term G/C/Y Index

A portfolio comprising 65% S&P 500 and 35% Lehman Long-Term G/C/Y Index along with the appropriate subclasses should be designated to meet the balanced funds’ objectives, with some margin. If this benchmark portfolio provides satisfactory performance characteristics,¹ it should be regarded as an acceptable standard against which to measure the pension fund management.

From the committee’s viewpoint, a 65/35 midpoint policy benchmark may have the advantage of permitting a range of strategic and tactical departures, while still meeting the fund objectives.

THE STRATEGIC BENCHMARK

From the policy benchmark, the Investment Committee may wish to develop the strategic benchmark. The policy benchmark expresses management’s objectives in terms of a simple mix of standard asset classes and benchmarks. The strategic benchmark, however, can go several steps further, as Figure 2 illustrates.

¹ Analysis utilizing Ibbotson Sinquefeld historic asset returns coupled with simulations utilizing possible future fund asset class mixes and their risk/return achieves an approximate 8 ½-9% portfolio rate of return.

* Policy benchmark and its midpoint are described in the Regents’ Benchmark Review dated December 1998.
Second, and perhaps more important, the strategic allocation within asset classes can deviate from the policy benchmark to reflect modest strategic market views that are expected to occur or persist over some period of time.

**Figure 2. The Strategic Benchmark**

<table>
<thead>
<tr>
<th>Fundamental Objectives</th>
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</thead>
<tbody>
<tr>
<td>Maximum Assets</td>
<td>Surplus</td>
<td>Spending Rate</td>
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</table>

**Midpoint Policy Benchmark**

- 65% Equity (60-75% range)  
- 35% Bonds (25-40% range)  

<table>
<thead>
<tr>
<th>S&amp;P 500</th>
<th>Lehman Long-Term G/C/Y Index</th>
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</table>

**EXAMPLE**

<table>
<thead>
<tr>
<th>Strategic Benchmark</th>
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<tbody>
<tr>
<td>65% Equity</td>
<td>35% Bonds</td>
</tr>
<tr>
<td>65% U.S. Large Cap</td>
<td>40% Treasury</td>
</tr>
<tr>
<td>15% International</td>
<td>30% Foreign</td>
</tr>
<tr>
<td>15% U.S. Mid to Small Cap</td>
<td>20% Corporate</td>
</tr>
<tr>
<td>5% Private Equity</td>
<td>10% High Yield</td>
</tr>
</tbody>
</table>

**CORRELATION OF STRATEGIC POLICY AND BENCHMARKS**

As a number of investment practitioners would state, there are important implications for those funds that can use the policy benchmark as a gauge of performance, rather than as a straightjacket. The strategic benchmark could encompass diversified departures to improve upon the return/risk pattern of the policy benchmark. In order to specifically adhere to asset class percentages, one must be mindful of the reliability of asset class correlations:

For instance:

1. **Correlations among securities of the same asset subclass, which have a fundamental resemblance are reliably high.** For example, a diversified portfolio of large-capitalization U.S. equities will correlate highly with the S&P 500 Index.

2. **Correlations among securities of fundamentally different classes, such as bonds/equities or U.S. equities/foreign equities, are statistical rather than fundamental.** These correlations can be quite unstable. Some subclasses, such as

* See attached Midpoint Policy presented to The Regents at the quarterly Investment Committee meetings.
private equity, do not even have sufficient statistical data to claim a correlation. In general, many advise that in reviewing correlations one should not place a heavy reliance on statistical correlations, especially between risky asset classes.

For example, the following graph displays the rise in stock market correlation over the past few years. Investors must be aware that with increased commerce among countries fostering a truly global economy and global competition global shocks also ripple around the world far more quickly.  Attachment 4

In the end, performance is ultimately judged not by the asset class returns in isolation, but by the fund’s overall combination of returns.