Fresno County Employees' Retirement Association
“Whole Stock Portfolios”
June 20, 2007

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Wurts & Associates
Executive Summary

• Wurts & Associates was asked to evaluate the presentation made by Richard Ennis at CALAPRS in March of this year (The presentation is enclosed). The presentation is the result of research entitled “The Case for Whole Stock Portfolios” published in 2001 by Richard Ennis in the “Journal of Portfolio Management”.

• “Whole Stock Portfolios” advocate giving breadth and freedom to investment managers across styles and capitalizations while avoiding the “style box” approach utilized by most plan sponsors.

• Wurts & Associates believes the disadvantages outweigh the advantages of “Whole-Stock Portfolios”.

• FCERA employs 28 managers (including alternative managers) which is average relative to 5 other SACRS members.

• FCERA could save approximately four basis points by consolidating the Public Managers from 16 to 8.
What Are “Whole Stock Portfolios”?

• “Whole-Stock Portfolios” allows for all active management opportunities in all market capitalization sizes and all manager styles. It advocates giving managers breadth and flexibility in structuring investments.

• A whole-stock portfolio gives the portfolio manager freedom to add value and shift portfolio construction based upon anticipated market conditions.

• “Whole Stock Portfolios” can be implemented several different ways:
  
  • **Traditional**- The manager employs a staff and analysts and the manager coordinates their judgments through an integrated security valuation and portfolio construction process.
  
  • **Quantitative**- The manager will rely on a computer-based method of security valuation and then uses an optimization model to construct the portfolio.
  
  • **Combining Multiple Specialties**- The manager has several teams of investment specialists in all areas of the market where each uses their own security valuation process. The manager then combines the specialty portfolios to create a whole-stock portfolio.
  
  • **Long-Short Market Neutral**- The manager can sell stocks short or invest for the long-term.

Source: Ennis Knupp & Associates, The Case for Whole-Stock Portfolios
“Whole Stock” vs. Style Box

“Whole Stock Portfolios”

- Value
- Core
- Growth

Flexibility

Breath

- Large
- Mid
- Small

Style Box

- Value
- Core
- Growth

- AJO Wellington
- S&P 500 Flagship
- INTECH TCW

- Brandywine

- Artisan Kalmar

Small
Mid
Large
**Advantages:**

- **Freedom** - No restrictions on the portfolio manager, skill can add value wherever it lies.

- **Completeness** - The client does not need to conjoin several independently managed active portfolios to add value, reducing the number of investment managers; thereby, taking advantage of higher fee breakpoints and lower overall management fees.

**Disadvantages:**

- **Lack of Specialization** - Few, if any, investment managers have the required expertise or skill to implement a “Whole-Stock Portfolio”.

- **Risk Control** - The Plan sponsor transfers control over the risk budget to the investment manager. The “risk bets” in the portfolio can change significantly from one period to another. There is little evidence that managers can successfully time the market.

- **Firm Specific Risk** - Risk becomes more concentrated with fewer managers employed.
<table>
<thead>
<tr>
<th>Asset Classes</th>
<th>Fresno County</th>
<th>San Diego County</th>
<th>San Joaquin County</th>
<th>San Bernardino County</th>
<th>Kern County</th>
<th>Contra Costa County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>11</td>
<td>11</td>
<td>9</td>
<td>13</td>
<td>7</td>
<td>11</td>
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<td>Fixed Income</td>
<td>5</td>
<td>8</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Real Estate</td>
<td>5</td>
<td>N/A</td>
<td>6</td>
<td>16</td>
<td>2</td>
<td>10</td>
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<tr>
<td>Alternatives</td>
<td>7</td>
<td>N/A</td>
<td>5</td>
<td>11</td>
<td>4</td>
<td>5</td>
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<td>Portable Alpha</td>
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<td>7</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>Total</td>
<td>28</td>
<td>26</td>
<td>21</td>
<td>46</td>
<td>16</td>
<td>31</td>
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<tr>
<td>Plan Size (Billion)</td>
<td>$2.81</td>
<td>$6.20</td>
<td>$1.89</td>
<td>$5.16</td>
<td>$2.52</td>
<td>$4.52</td>
</tr>
</tbody>
</table>

- Wurts & Associates surveyed 5 other SACRS members to see how many managers other counties had in their plans.
- The result was that FCERA fell in the middle the pack in terms of number of managers against comparable SACRS members.
Projected Manager Fee Savings

- Can only reduce Public Managers as Alternative Managers necessitate diversification.
- Hypothetically reduce Public Managers to one manager per style box.
- Results in overall fee savings of 4 basis points.

**Current Public Managers**

16 Public Managers

Total Public Manager Allocation (000's):
$2,582,000

**Reduced Public Managers**

8 Public Managers

<table>
<thead>
<tr>
<th>Manager Allocation</th>
<th>Total Fee (bps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 Managers</td>
<td>45</td>
</tr>
<tr>
<td>8 Managers</td>
<td>41</td>
</tr>
<tr>
<td>Difference</td>
<td>4</td>
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</tbody>
</table>

*Current Fee Schedules and breakpoints were used, fees are approximate as a result of performance based fees and managers may agree to different breakpoints based on assets.

**Public Managers do not include Real Estate & Alternative Managers.*
Investment Mandates: Broad Mandates vs. Style Boxes

Plus

Investment Organization in the Modern Era

Plus

Moral Hazard in Public Pensions

Richard M. Ennis

Chairman, Ennis Knupp + Associates

Editor, Financial Analysts Journal

CALAPRS General Assembly
Monday, March 12, 2007
9:15 a.m. to 10:00 a.m.
Investment Mandates: Broad Mandates vs. Style Boxes

- The problem with style boxes
- Are broad mandates the answer?
- Does style really matter?
- Focus on skill rather than style
- Skill: Does a particular manager have an edge?
- Never, ever subordinate the search for skill to considerations of style
- Who should do manager selection?
Investment Organization in the Modern Era

- Traditional approach to investment department organization: by asset class
- Shortcomings of the traditional approach
- The alternative: functional organization
- The two principal functions for the marketable securities portfolio:
  - Portfolio Management
  - Active manager selection
The Portfolio Management Function:
Eventually there is only one portfolio

- Investment policy analysis (e.g., asset-liability studies)
- Risk Budgeting and Risk Management
- Passive investment management
- Rebalancing
- Management of active risk exposures
- Management of all non-active exposures
- Portfolio transitions
- Performance evaluation
• The Active Manager Selection Function

• All active manager selection conducted by a group of highly experienced professionals: The Scouts

• Active investment products no longer fall into neat little buckets; greater flexibility needed in evaluating them

• Experience is more critical than specialization

• Forces comparison of managers based on skill

• Helps lessen tendency toward closet indexing

• Portfolio construction is moving toward aggregate risk budgeting and away from asset-class silos