MANAGER FUNDING POLICY

The Board of Investment Trustees adopts the Manager Funding Policy Guidelines as presented on December 3, 1999, amended December 6, 2002, and June 6, 2003, which will allow the Board to provide risk management when considering the future funding of managers.

Attachment: Manager Funding Policy Guidelines (June 6, 2003)

MANAGER FUNDING POLICY GUIDELINES
(JUNE 6, 2003)

Manager Funding Philosophy

A common dilemma faced by trustees of assets managed by external managers is the acceptable level of funding for each manager. The objective in building any portfolio, whether of individual securities or of money managers is to maximize return given certain risk parameters. Generally, these risk parameters are based on two things:

- expected volatility of the portfolio or asset class in question versus the market benchmark (commonly known as tracking error, consisting of the standard deviation of the difference between the portfolio and the benchmark), and
- factor risks, consisting of many variables but often aggregated into the two dimensions of style and market capitalization.

Tools exist to optimize this problem. That is, given a set of managers, one can arrive at a theoretically optimal allocation to each manager which maximizes return within specified risk tolerances. And this is the appropriate approach to use assuming risk is measured in the two quantifiable dimensions discussed above. Unfortunately, risk associated with allocating assets to a manager is broader than these two dimensions. And further, these "other" risks are often either ignored, or distorted.

For instance, business risk is the potential for disruption resulting from a loss of people or a closing of the firm. It is not captured in the two dimensions of expected tracking error and factor risk, but it is a risk none the less. To ignore it is to suggest there is no difference in risk to the investor between a yet to be profitable six month old firm with $50 million in assets and a consistently profitable 15 year old firm with $50 billion in assets. Conversely, however, an institutional investor is not lending the firm money but asking it to invest it. And the firm does not have custody, only investment discretion. The downside to the firm's going out of business is the transactions costs of transitioning a portfolio, the administrative costs of completing the process and the potential for opportunity costs. None of these are overwhelming. So while it would be a mistake to ignore these "other" risks, it would be equally mistaken to distort them to the point where attractive opportunities or managers are foregone. As with the two dimensional risk which is quantifiable, we must optimize the return potential with the costs and probability of these other risks.

Additional Risk Considerations

Business Risk

Business risk is the potential for disruption resulting from a loss of people or a closing of the firm. Business risk takes on two different but related dimensions. First is the length of time the firm has been in business. Many institutional investors require a three year track record and minimum assets of $100 million before they can be engaged, creating greater risk for these firms. Additionally, intangibles such as the chemistry of the professionals are most tentative early in a firm's life. Second, while every firm is unique, cost and revenue structures generally require $200 million in assets under management for an institutional firm to be profitable. Thus newer and smaller firms are more likely to be unprofitable or in other ways less stable, increasing business risk. The following firm characteristics may warrant reduced allocations:

- Assets under $200 million
- In business 3 years or less

Prior to funding, firms with these characteristics should provide a business plan, financial information including any financing arrangements and breakdown of assets by client (if a firm's asset base is dominated by a dominant client(s), business risk increases since a single client withdrawing funds could impair the firm). RFI's should require recent financials for all firms.

Frequently, investors limit the size of an account to some percentage of a firm's assets (eg. 25%). For instance, if an investment firm has $200 million in assets, funding would be limited to some percentage of the total (eg. $50 million). However, since you control the situation of your own funding, of greater concern than you having a substantial percentage of a firm's assets is where another investor does, as you don't control their actions. A sudden withdrawal could impair the viability of the firm, or if securities have limited liquidity, could impair the value of portfolios remaining with the investment firm. In fact, the greatest direct risk of an account which comprises a high percentage of investment firm assets is to the manager, and indirectly, to the other investors.

Product / Strategy Risk

Product risk encompasses those issues related to the design of the product, the way it is managed and the securities it owns. Measures of product risk include the length of history (the less history, the less certainty, the greater the risk), stability of the team, and the presence of esoteric strategies or securities.

The following product characteristics may warrant reduced allocations:

- Product history less than 3 years
- Team history less than 3 years
- Strategies such as arbitrage, long/short, concentrated portfolios or other higher risk or non-traditional investment strategies
- Use of derivatives, private or other limited liquidity securities, and other higher risk securities

Manager Funding Guidelines

1. Fund Limits:
    - No single manager will be allocated in excess of 30% of MCERS fund assets. The objective of this limitation is to ensure diversification of business risk and fund liquidity.
    - No single active product of a given firm will be allocated in excess of 20% of MCERS fund assets. The objective of this limit is to ensure diversification of strategy risk.
    - No single manager will be allocated in excess of 75% of a given asset class. Asset classes are defined as follows: US Equity, Fixed Income, International Equity, and Real Estate.

2. We know that allocating assets across (1) asset classes, (2) managers, and (3) securities, reduces risk through diversification. However, it is possible to overdiversify, that is, increase the number of managers and securities to the point where little or no reduction in marginal risk is accomplished, while alpha is being diluted and costs increase. The declining marginal value of additional diversification can be measured and should be considered as a starting point in identifying the maximum number of managers appropriate for each asset class.

3. Given a set of managers within the limits identified in step 1 above, a manager optimization process which considers return, tracking error and factor risks can be used to identify the "economically optimal" allocation to each manager.

4. Additional risks should be assessed and appropriate allocation adjustments made. Additional Risk Checklist:
    - Firm assets under $200 million
    - Firm in business 3 years or less
    - Product history less than 3 years
    - Team history less than 3 years
    - Strategies such as arbitrage, long/short, concentrated portfolios or other higher risk or non-traditional investment strategies
    - Use of derivatives, private or other limited liquidity securities, and other higher risk securities

These guidelines may be applied in the attached matrix for use in setting funding limits.