THE PUBLIC SCHOOL

and

THE NON-TEACHER SCHOOL EMPLOYEE RETIREMENT SYSTEMS OF MISSOURI

INVESTMENT POLICY

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Adopted by the Board of Trustees August, 1995

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INVESTMENT POLICY

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I. Introduction and Mission Statement

The Public School and The Non-Teacher School Employee Retirement Systems of Missouri (‘PSRS’ and ‘NTRS’, respectively, and hereinafter collectively referred to as ‘PSRS/NTRS’ or ‘Systems’) is a mandatory, cost-sharing multiple-employer retirement system for substantially all full-time employees of all public school districts in the State of Missouri and all public community colleges.[1] Each system is separate by statute; the benefit structures, contribution rates, asset allocations and accounting systems are unique to PSRS and NTRS. Responsibility for the operation and administration of the Systems is vested in a common Board of Trustees (Board), which has a fiduciary responsibility to the Members and Beneficiaries. In recognition of this fiduciary obligation, the Board has adopted the following Mission Statement for the Systems:

Mission Statement

> **The Public School and The Non-Teacher School Employee Retirement Systems of Missouri** work in partnership with the member school districts of this state to provide eligible employees and their beneficiaries with a significant source of income based on the employee’s length of service and compensation in order to enhance retirement, disability and death benefits received from other sources.
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> It is the fiduciary responsibility of those charged with administration of PSRS/NTRS to:
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> - Effectively collect contributions,
> - Prudently invest the assets to obtain optimum returns,
> - Equitably provide benefits, and
> - Impartially and in accordance with applicable law administer the benefit programs.
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> The Board of Trustees and staff are committed to providing services to the members and beneficiaries professionally, promptly, courteously, and efficiently.

The purpose of the Mission Statement is twofold. First, it provides broad operational direction to the Board, Staff and external contractors. Second, it makes an explicit commitment to the Members and Beneficiaries of the Systems regarding the provision of retirement benefits. With the Systems’ Mission Statement as a basis, the Board has adopted this Investment Policy document.

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[1] *Exceptions are the school districts of St. Louis and Kansas City, and non-teacher employees of St. Louis Community College. These groups are not covered by either PSRS or NTRS.*

II. Statement of Purpose of Investment Policy

This document outlines the investment philosophy, objectives, and practices of PSRS/NTRS and has been developed to serve as a reference point for the management of the Systems' assets. To assist the Systems' participants in achieving their financial security objectives, the Board has adopted a long-term plan by which the assets of the Systems will be maintained and enhanced through prudent investments. This plan is intended to ensure that the level of assets is adequate to cover the accumulated liabilities of the Systems. **This is an official policy document of PSRS/NTRS. Adoption of this Investment Policy supersedes any prior Investment Policy document(s). Deviation from this document is not permitted without explicit written permission, in advance, from the Board.**

In developing its Investment Policy, the Board understands and accepts its fiduciary obligations to the Members and Beneficiaries of the Systems. These obligations are legal in nature, and are outlined in Section 105.688. of the Revised Statutes of Missouri. The statute is reproduced below and incorporated in its entirety as part of this Investment Policy:

> The assets of a system may be invested, reinvested and managed by an investment fiduciary subject to the terms, conditions and limitations provided in sections 105.687. to 105.689. An investment fiduciary shall discharge his or her duties in the interest of the participants in the system and their beneficiaries and shall:
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> > (1) Act with the same care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a similar capacity and familiar with those matters would use in the conduct of a similar enterprise with similar aims;
> >
> > (2) Act with due regard for the management, reputation, and stability of the issuer and the character of the particular investments being considered;
> >
> > (3) Make investments for the purposes of providing benefits to participants and participants' beneficiaries, and of defraying reasonable expenses of investing the assets of the system;
> >
> > (4) Give appropriate consideration to those facts and circumstances that the investment fiduciary knows or should know are relevant to the particular investment or investment course of action involved, including the role of the investment or investment course of action plays in that portion of the system's investments for which the investment fiduciary has responsibility. For purposes of this subdivision, "appropriate consideration" shall include,

but is not necessarily limited to a determination by the investment fiduciary that a particular investment or investment course of actions is reasonably designed, as part of the investments of the system, to further the purposes of the system, taking into consideration the risk of loss and the opportunity for gain or other return associated with the investment or investment course of action; and consideration of the following factors as they relate to the investment or investment course of action:

(a) The diversification of the investments of the system;

(b) The liquidity and current return of the investments of the system relative to the anticipated cash flow requirements of the system; and

(c) The projected return of the investments of the system relative to the funding objectives of the system;

5) Give appropriate consideration to investments which would enhance the general welfare of this state and its citizens if those investments offer the safety and rate of return comparable to other investments available to the investment fiduciary at the time the investment decision is made.

The statute provides the foundation for development of the Systems' Investment Policy. The language in the statute is complex. For brevity and clarity, the Board hereby adopts the following interpretation of the statute as its "Guiding Principles":

Principles Guiding PSRS/NTRS's Investment Activity

1. *Act in the exclusive interest of the Members of the Systems.*
2. *Maximize total return within prudent risk parameters.*
3. *Preserve the long-term purchasing power of the fund.*

These principles, combined with the applicable sections of the Revised Statutes of Missouri, serve as the basic guideline for this Investment Policy document.

III. Investment Philosophy

The Systems' Mission Statement indicates that among its key duties is provision of benefits to Members. In order to do so the Systems must accumulate and maintain the liquid financial reserves necessary to fulfill this obligation.

Liquid financial reserves shall be obtained from three sources: (1) Contributions from the Members of the Systems; (2) Contributions from Employers; and (3) Return on Investments. The Systems are contributory by statute; for purposes of developing this Investment Policy, the Systems assume at this time that the stream of contributions from Members and their Employers will continue in the future and remain an important source of funding. More important than the level of contributions, in terms of total dollar impact, is the return on investment of the assets of PSRS/NTRS. Based on general beliefs about the long-term investment returns available from a well-diversified, prudently invested portfolio, the Board has adopted the following Total Fund Investment Objective:

Total Fund Investment Objective

The goal of the PSRS/NTRS investment strategy is to achieve a ***total real rate of return of at least 4.5 percent per annum over time****.*[2]

In order to achieve this real rate of return, the Board will rely on an investment strategy utilizing an appropriate long-term, diversified asset allocation model. The purpose of diversification is risk minimization. Diversification generally should be along the following lines: asset classes (stocks, bonds, cash, real estate, etc.), countries, industries, investment styles, capitalization ranges and maturity sectors. Other considerations in asset allocation modeling should take into account the purpose of the Systems, the size and financial condition of the Fund, and general business conditions. The factors mentioned here are not intended to be limiting; rather, they are outlined as a general indication of the importance of diversification to proper asset allocation. The Board will determine the proper allocation among asset classes and investment managers, based on advice and analysis provided by the Investment Staff and/or External Asset Consultant(s).

Investment managers will be given specific tactical roles within the overall strategic investment plan. Depending on their assignments, managers may be judged on some or all of the following: (i) consistency of philosophy, style, and key personnel, (ii) performance relative to an appropriate index or proxy group, and (iii) ability to add incremental value after costs. The Investment Staff and Consultant will provide continual performance monitoring and supervision of the Systems' managers, and provide periodic

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2 *The real rate of return is the rate by which the long-term total return exceeds the long-term inflation rate. The Board shall employ an actuarial consultant for purposes of determining the inflation rate to be used in calculating the PSRS and NTRS pension obligations. The current assumed inflation rate is three and one-half (3.50) percent per annum.*

updates to the Board. The review focus of the Board will be based on performance relative to appropriate benchmarks and peer performance over time.

The Board recognizes that even though its investments are subject to short-term volatility, it is critical that a long-term investment focus be maintained. This prevents ad-hoc revisions to its philosophy and policies in reaction to either speculation or short-term market fluctuations. In order to preserve this long-term view, the Board has adopted the following formal review schedule[3] :

Formal Review Agenda Item	Formal Review Schedule
Total Fund Performance	Quarterly
Broad Asset Allocation	At least every three years
Manager Structure	At least every three years
Investment Policy	Annually

In determining its philosophy towards risk, the Board has properly considered, in addition to its fiduciary obligations and statutory requirements, the Systems' purpose and characteristics, financial condition, liquidity needs, sources of contribution, income, and general business conditions. Currently, the liquidity requirements of the Systems are not so binding that specific investment decisions are necessary to meet them. The Board is not prevented from structuring a well-diversified investment portfolio, and its commitment to a long-term investment focus should be maintained.

IV. Roles and Responsibilities

PSRS/NTRS is one of the larger public pension funds in the United States; as such its operational requirements are complex. In order to properly administer the Systems and carry out investment strategies, the Board relies heavily on both Internal Staff and external contractors. Because of the number of parties involved, their roles as fiduciaries must be clearly identified to increase operational efficiency, to ensure clear lines of responsibility, to ensure proper controls and to reduce or eliminate duplication of effort.

Board of Trustees

The PSRS/NTRS Board is responsible for prudent utilization of the Systems' funds and assets involving retirement and disability benefit plans. The Board has the responsibility of establishing and maintaining policies and objectives for all aspects of the Systems' operation, including establishing contribution rates and administrative policies.

Specifically with regard to the investment process, the Board relies on the recommendations of its Investment Staff and Consultant prior to taking investment action. The following are examples of Board-level investment decisions:

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3 *The Board reserves the right to review any of these topics at any time. This formal schedule is set forth for long-term planning purposes only.*

1. Approval of formal policies related to the investment program.
2. Determination of long-term policies for risk tolerance and asset mix.
3. Approval of manager structure.
4. Retention or termination of investment managers.

The Investment Staff and Consultant will provide information addressing investment activities to the Board both prior to and during its regular meetings. After briefings by Staff and Consultant on any topics or issues pertinent to the Systems' investment operations, the Board will determine what action, if any, is necessary. Assuming that the long-term plan, asset allocation and investment managers are properly structured, the general course of action for the Board will be to recommend only modest changes in direction.

Executive Director

The Executive Director (Director) is appointed by, and serves at the pleasure of the Board. The Director is responsible for planning, organizing, and administering all operations of the Systems under the broad policy guidance and direction of the Board. The Director, with the assistance of the Investment Staff, monitors the performance of the investment portfolio; ensures that funds are invested in accordance with Board policies; studies, recommends, and implements policy and operational procedures that will enhance the investment programs of PSRS/NTRS; and ensures that proper internal controls are developed to safeguard the assets of the Systems. In fulfilling these responsibilities, the Director relies heavily on the Chief Investment Officer and Consultant.

Internal Investment Staff

The Internal Investment Staff provides internal investment management and consulting support to the Board and Director. The primary functions of the Investment Staff include analyzing the overall asset allocation of the Systems and its portfolio structure; providing technical advice; screening and monitoring external managers to ensure compliance with Board mandates and policies; management of internal programs; serving as a liaison to the investment community; monitoring fund performance and rebalancing assets; and informing and advising the Board and Director on financial, economic and political developments that may affect the investments of the Systems. The Investment Staff also works closely with the Consultant on a project-specific basis. The Chief Investment Officer reports directly to the Director.

Internal Accounting Staff

The Internal Accounting Staff develops and maintains the accounting systems of PSRS. The Accounting Staff identifies and records on a timely basis the valid fiscal transactions of the system, and designs and monitors the internal controls on those transactions so as to insure the integrity of the fiscal information. The Accounting Staff provides the Director and the Board with the financial tools to make informed management decisions, and prepares the external accounting statements and Comprehensive Annual Financial Report (CAFR) in accordance with generally accepted accounting principles (GAAP).

The primary responsibility of the Accounting Staff in the investment process is reconciliation of the System's records with the reports prepared by the Custodian. The Accounting Staff also maintains the System's transaction records and monitors realized and unrealized investment gains and losses. The Accounting and Investment Staff share responsibility for both the management of the cash flow of the System's funds and the maintenance of the System's banking relationships necessary to facilitate that process. The Accounting Staff reports to the Director through the Assistant Executive Director.

Actuarial Consultant

The System may employ an Actuarial Consultant (Actuary) for the purpose of forecasting asset and liability growth and the many complex factors included in estimating future pension costs. These factors include, but are not limited to, interest rates, inflation, investment earnings, mortality rates and employee turnover. These actuarial assumptions are then used to forecast uncertain future events affecting the System. The Actuary shall provide periodic reports on the actuarial valuation of the System, and shall provide recommendations to the Board including, among other things, the estimated level of contributions necessary to fund promised benefits. The Actuary is appointed by, and serves at the pleasure of the Board.

External Asset Consultant(s)

The External Asset Consultant's (Consultant) duty is to work with the Board and Staff to manage the investment process. This includes regular meetings with the Board to provide an independent perspective on the Systems' goals, structure, performance and managers. The Consultant will review asset allocations and performance in conjunction with the Staff, and make recommendations to the Board as appropriate. The Consultant will assist with external manager selection, when needed. The Consultant is also responsible for reviewing internal management programs. In addition to observing financial, economic, and political developments, the Consultant will also monitor changes within the pension and investment communities that may affect the Systems. The Consultant will promptly inform the Board and discuss the impact of material changes taking place within any current or potential manager's investment process or organizational structure. The Consultant is appointed by, and serves at the pleasure of the Board.

External Investment Managers

The external investment managers (managers) will be selected by, and serve at the pleasure of, the Retirement Systems. Managers will be given explicit written directions detailing their particular assignments, and will construct and manage investment portfolios that are consistent with the investment philosophy and disciplines for which they were hired. They will select, buy, and sell specific securities within their guidelines and in adherence to other policies set forth by the Systems. Discretion is delegated to the managers to carry out investment actions as directed by the Systems. Managers will provide performance reporting to the Staff utilizing standardized reporting formats at intervals specified by Staff. Specific operational information for each manager is addressed at length in the Operating Manual.

Custodian

The Custodian(s) will collect income and safekeep all cash and securities, and will regularly summarize these holdings, along with both their individual and collective performance, for the Board's review. Performance reports will be provided by the Custodian at intervals specified by Staff. In addition, a bank or trust depository arrangement will be utilized to accept and hold cash and to invest such cash in liquid, interest-bearing instruments. The Custodian engages in a Securities Lending program.

V. Asset Allocation

PSRS/NTRS's investment assets are divided into general classes such as domestic stocks, non-U.S. stocks, and bonds. It is common practice to construct portfolios using combinations of asset classes in order to improve the risk/return profile. This concept is called diversification, and was discussed briefly in Section III. The asset allocation decision is generally regarded as the most important decision to be made in the investment management process. Studies have indicated that approximately 85 percent of the variability in an investment portfolio's return can be attributed to the asset allocation decision.

In order to determine the appropriate mix of asset classes in a portfolio, five factors must be considered:

1. appropriate asset classes for investment,
2. the expected rate of return for each asset class,
3. the estimated risk of each asset class (expressed as the standard deviation of the rate of return),
4. the correlation between the rates of return of the asset classes, and
5. the investment objectives and risk constraints of the fund.

Once an analysis of these factors is completed, the asset mix which produces an optimal risk/return tradeoff can be determined. As stated in Section I, PSRS/NTRS consists of two distinct systems: The Public School Retirement System and The Non-Teacher School Employee Retirement System. It is therefore necessary to conduct two separate asset allocation studies. While the methodology for each study is the same, differences in plan characteristics may produce distinct results. Based on its determination of the appropriate risk tolerance for each System, and its long-term return expectations, the Board has adopted the following broad asset allocation guidelines for PSRS/NTRS:

THE PUBLIC SCHOOL RETIREMENT SYSTEM OF MISSOURI	
Asset Class	***Allocation***
Domestic Equity Investments	37.00%
Non-U.S. Equity Investments	18.00%
Fixed Income Investments	32.00%
Real Estate	5.00%
Real Return Pool Investments	5.00%
Private Equity Investments[4]	3.00%

Within each broad asset class there exist numerous investment styles and philosophies in which the Systems' assets may be invested. The Board shall make these Manager Structure decisions based on the advice and recommendations of the Investment Staff and Consultant. These allocations shall be included in the Operating Manual. As stated in Section III, a formal review of the Manager Structure shall be conducted at least every three years by the Board, in conjunction with a formal Broad Asset Class Allocation review.

THE NON-TEACHER SCHOOL EMPLOYEE RETIREMENT SYSTEM OF MISSOURI	
Asset Class	***Allocation***
Domestic Equity Investments	37.00%
Non-U.S. Equity Investments	18.00%
Fixed Income Investments	32.00%
Real Estate	5.00%
Real Return Pool Investments	5.00%
Private Equity Investments[4]	3.00%

Cash held by managers can be disruptive to the allocation process. Managers are therefore expected to be fully invested at all times, with the exception of brief periods between the sale of an existing security and the purchase of a replacement security. The Board may choose to hire managers specializing in market timing; these managers may be authorized to hold cash. Absent specific prior written Board authorization, no manager shall hold more than five (5) percent of their allocated funds in cash.

Performance Objectives

Generating a total real rate of return net of expenses of at least 4.5 percent per annum is an important consideration in the asset allocation decision and the primary performance objective for the Total Fund over long periods of time. The need for a long-term focus is necessary to preclude the temptation to overreact to events in the financial markets that have no relevance to long-term asset/liability management. The resulting dilemma is the

[4] *The Board has adopted a 3% allocation to private equity. In the interim (prior to funding) 2% of the allocation is directed to fixed income and 1% to domestic equity.*

conflicting need to evaluate investment policy implementation over shorter time periods while maintaining a longer-term focus on meeting the 4.5 percent real rate of return objective. In order to determine if the Systems' shorter-term and long-term objectives are being achieved, it is necessary to develop multiple benchmarks by which the Systems' progress may be judged. These benchmarks allow the Systems to be judged (1) by performance relative to broad market indices (i.e., performance relative to a policy benchmark that reflects the Systems' asset allocation, (2) by long-term performance relative to its actuarial assumptions, and (3) by performance relative to other public pension systems and their investment managers as a reference point of oversight. The stated objectives of the investment management process are as follows:

1. *To equal or exceed over a market cycle a policy benchmark that reflects the Systems' asset allocation. The policy benchmark will change over time as the Systems' asset allocation changes with Board decisions, the funding of asset classes, and other facters. The current long-term asset allocation objective for the Systems results in a policy benchmark comprised of:*

THE PUBLIC SCHOOL RETIREMENT SYSTEM OF MISSOURI	
Market Index	**Proportion**
Russell 3000 Domestic Stock Index	37.00%
MSCI AC World Free Ex US (Gross Divs)	18.00%
Customized Fixed Income Benchmark[5]	32.00%
Customized Real Estate Benchmark[6]	5.00%
Lehman Brothers TIPS Index	5.00%
Russell 3000 Domestic Stock Index + 300 basis points	3.00%

THE NON-TEACHER SCHOOL EMPLOYEE RETIREMENT SYSTEM OF MISSOURI	
Market Index	**Proportion**
Russell 3000 Domestic Stock Index	37.00%
MSCI AC World Free Ex US (Gross Divs)	18.00%
Customized Fixed Income Benchmark	32.00%
Customized Real Estate Benchmark	5.00%
Lehman Brothers TIPS Index	5.00%
Russell 3000 Domestic Stock Index + 300 basis points	3.00%

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[5] *The Customized Fixed Income Benchmark is comprised of 95 percent Lehman Aggregate Index and 5 percent Merrill Lynch High Yield Master Index II.*

[6] *The Customized Real Estate Benchmark is described fully in Section III of the Real Estate Implementation Manual included with this Policy document as Appendix XI. It is comprised of a portfolio weighted combination of the NCREIF Property Index (NPI) and the NAREIT Equity Index.*

2. To earn a rate of return, after fees, of 4.5 percent in excess of plan liability inflation.

There will be meaningful short-term variations from thisobjective; the Board believes, however, that over the long-term (market cycle to market cycle) this goal should be attainable.

3. To perform adequately on a risk-adjusted basis relative to other similar institutional investors and their external investment managers.

In the short-term, individual managers employed by the Systems will not be measured against the aggregate fund objective nor against the real rate of return target outlined above. Managers may be evaluated:

1. against appropriate market indices on both a risk-adjusted and nominal basis;
2. against peers within their style groups;
3. on adherence to their stated investment styles; and
4. on adherence to investment guidelines.

Performance expectations for each manager will be determined by the Investment Staff and the Consultant. The specific performance criteria for each manager will be outlined in the Operating Manual.

VI. Permissible Investments

The Retirement Systems invest in a broad array of investment vehicles across the primary asset classes of domestic equity, non-U.S. equity, fixed income, real return securities, real estate and private equity. Securities permitted by the Systems fall under the following basic categories: 1) traditional investments (i.e., stocks, bonds, etc.), 2) private investments (i.e., private equity and private real estate), 3) and non-traditional investments such as derivative securities, short selling and currencies. Each manager retained by the Sytems is given specific instructions with regard to permissible investments relevant to their tactical role in PSRS/NTRS's investment process. For each manager, the description of allowed investment vehicles is included in the Systems' Investment Guidelines for that particular manager.

Additional Information:

- Assets may be held in commingled funds, privately managed separate accounts, and/or investment partnerships.
- Investments in commingled funds shall be evaluated on a case-specific basis through analysis of the fund's 'offering document'. The 'offering document' shall become the specific investment guidelines for that particular allocation, along with any additional terms negotiated and agreed upon in writing between the investment manager and PSRS/NTRS.
- Investments may be made through investment partnerships and joint ventures. These practices are most common within the real estate and private equity asset classes.
- Investments may not be made in any investment that is prohibited by the Internal Revenue Service or statutory restrictions.

- The securities representing debt and equity of any one company shall not exceed 5.0 percent of the market value at cost of any manager's portfolio except for securities of the U.S. government without specific written approval in the manager's Investment Guidelines.
- All investments made shall be subject to the quality and diversification restrictions established by Section 105.688. of the Revised Statutes of Missouri.
- Derivative securities that are highly leveraged or are being used for purposes of speculation may not be used without prior review and express written authorization from the Board. Futures and options may be used by investment managers to obtain asset class exposure with uninvested cash, to equitize dividend receivables, or for yield curve management.
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Securities Lending

The Board may elect to hire a Securities Lending Investment Agent (Agent) to lend financial securities of the fund. Any income from this activity will be deposited upon receipt in a pre-specified short-term investment vehicle or vehicles. The Agent may lend financial securities (including but not limited to U.S. and non-U.S. equities, corporate bonds and U.S. and non-U.S. government securities). This Agent shall continually review the creditworthiness of potential borrowers through adequate analysis of publicly available information and any other material available to them. No more than thirty (30) percent of the Systems' securities on loan shall be loaned to any one borrower. All loans shall be fully collateralized with cash, securities or irrevocable bank letters of credit. Collateralization of such loans shall be at least 102 percent domestic (105 percent international) of the market value of the loaned securities plus accrued income for U.S. and non-U.S. loans, respectively. Securities on loan should be marked-to-market on a daily basis to assess adequacy of collateralization. The Agent shall provide quarterly performance reports to the Staff. The Securities Lending program shall in no way inhibit the trading activities of the other managers of the Systems.

VII. Responsibilities of External Investment Managers

General Manager Guidelines

PSRS/NTRS utilizes external investment managers to implement its investment programs. These managers have demonstrated expertise with particular asset classes and/or management styles. In order to be considered for an assignment, a manager must have a level of assets under management so that the addition of funds from PSRS/NTRS will not cause the assets of the Systems to exceed 25 percent of the manager's total assets in the product. Each investment manager shall be a registered advisor under the Investment Advisers Act of 1940 (or shall be appropriately exempt from registration). Individual investment guidelines will be set for each manager. These guidelines will be specific as to the particular role of that manager's portfolio in the overall investment structure, and will address the following topics:

- Permissible Investments
- Style Adherence
- Diversification
- Portfolio Quality Requirements
- Performance Objectives
- Manager-specific Issues

Managers will be delegated the duties of sector and security selection, portfolio quality and timing of purchases and sales (including broker selection), subject to their specific guidelines. Compliance with these guidelines is mandatory. No deviation will be permitted without express written permission, in advance, from the Board.

Communication

An external manager employed by the Board is expected to communicate, in writing, any developments that may impact the Systems' portfolios to the Staff and Consultant within five (5) business days of occurrence. Examples of these events include, but are not limited to:

- a significant change in investment philosophy;
- a significant shortfall in performance relative to the assigned benchmark for the most recent quarter;
- a loss of one or more key management personnel;
- a new portfolio manager being assigned to the Systems' accounts;
- a change in the ownership structure of the manager's firm; or
- any occurrence which might potentially impact the management, professionalism, integrity or financial position of the investment management firm.

Additionally, managers will be responsible for meeting with the Investment Staff at least once per year in person and as requested through audio and/or video conference calls. The Investment Staff will coordinate with the manager to arrive at acceptable meeting dates.

Benchmarks

All investment managers will be judged against appropriate benchmarks. Each manager's benchmark will reflect that manager's particular style or strategic role in PSRS/NTRS's investment process. Each benchmark will be clearly specified, measurable and investable. Benchmarks do not have to be published or widely recognized; they may be "customized" for a particular investment style(s). The proper benchmark shall be determined in advance of funding by mutual agreement between the manager, Staff, and Consultant.

Performance Reporting

All investment managers under contract with PSRS/NTRS will report investment performance to Staff on a quarterly basis. **The Systems require public market managers to utilize a standard reporting format. There will be no exceptions to this**

requirement. A blank copy of this form is included in the Operating Manual. Managers may however provide their standard performance reports as supplemental information to the PSRS/NTRS standardized report. Please refer to the following section of this document for more information.

Ramification of Non-Compliance

All investment managers are employed at the pleasure of the Board, with a five-day termination notice provision in PSRS/NTRS's standard manager contract. Failure to follow these generic guidelines, and/or the manager-specific guidelines as set forth in the Operating Manual may result in termination.

VIII. Performance Measurement

Performance reviews are a critical part of the portfolio management process. In fulfilling this duty, the Board will rely on its external investment managers, Consultant(s), Custodian, and Staff. PSRS/NTRS receives quarterly performance reports from the following three sources:

1. **Managers:** shall provide quarterly reports utilizing a standardized reporting format specified by the Staff. There will be no exceptions. Managers may provide their standard performance information in a different format as supplemental information only, at their discretion.

2. **Custodian**: shall provide monthly performance reports to the Investment Staff. These reports shall detail the individual performance of managers and the overall performance of the fund. In addition, the Custodian shall report the results of any securities lending activities to the Investment Staff on a quarterly basis.

3. **Consultant:** shall provide verification of performance numbers generated by the Custodian on a quarterly basis. Additionally, the Consultant shall provide performance reports to the Board on all internal investment management functions. This information shall be presented to the Board by the Consultant at regular Board meetings. These reports will include, at a minimum, comparison with the Total Fund Objectives.

Staff will be responsible for ensuring that performance reports are received in a timely manner from these parties, and will provide continual supervision of the performance reporting on the portfolio.

IX. Implementation

The Board recognizes that the complex investment processes of PSRS/NTRS require a substantial amount of daily attention. It is clear that the Board, meeting periodically, cannot oversee the day-to-day operations of the investment function. In order to promote operational efficiency in the implementation of its Investment Policy, the Board has employed various parties to carry out these duties. The efficiency of operations are critically dependent on the proper delegation and coordination of clearly defined assignments among the various parties listed in Section IV of this document.

This Investment Policy has been written with the intent of providing a broad operational outline, or *reference point*, for implementing the investment philosophy and practices of PSRS/NTRS. Properly structured, a policy document of this nature should require little revision over time. Technical details have been intentionally omitted from this document, due to the volume and complexity of these issues. This information is included in PSRS/NTRS's Investment Policy Operating Manual (Manual). This is a separate binder which is available for public inspection in the central files of PSRS/NTRS's Investment Department. Where applicable, the Manual should contain information which is no more than one year old. Dated information may be removed and kept in Staff files. The Manual will be maintained by PSRS/NTRS's Internal Investment Staff, and will contain the following information:

Asset Allocation Assumptions
Section V of this Investment Policy contains a general discussion of the asset allocation process and the end results of the model; more detailed information, including the inputs and assumptions used in the process will be included in the Operating Manual. An important part of the Manual is detailed information regarding the allocation and rebalancing of assets between asset classes and within the Manager Structure. The Manual will also contain summaries of all portfolio rebalancing activities by Staff.

Specific Manager Guidelines
The investment manager guidelines have been previously outlined in Section VII of this document. The Manual contains specific guidelines outlining the tactical role of each individual manager within PSRS/NTRS's investment strategy. These guidelines shall include, but are not limited to, general information on each manager, specific descriptions of assignments, communication requirements, proxy voting responsibilities, benchmarks, and performance reporting requirements. These specific guidelines will be agreed upon by Staff, Consultant, and the manager in advance of funding.

Performance Measurement
The performance measurement section shall contain at least the most recent year of quarterly performance information for each manager employed by PSRS/NTRS.

Cost Management
This section of the Manual shall contain summary information provided by managers about their management fees, brokerage commission expenses, and use of soft dollars.

Miscellaneous Information
The Manual may also include other information pertinent to the investment operations of the Systems, as deemed appropriate by the Board, Director, and or Investment Staff.

X. Glossary of Terms

Asset Allocation Decision - choosing among broad asset classes such as equities, fixed-income securities and real estate.

Beneficiary - the present or potential recipient of a benefit.

Brokerage Commission - payment for administrative costs incurred in trading securities; the cost of execution.

Commingled Fund - a pooling of funds from multiple investors, managed as one account. The client owns units in the pool; similar to a mutual fund.

Diversification - spreading a portfolio over many investments to avoid excessive exposure to any one source of risk.

Electronic Crossing Network - an increasingly popular and cost-effective means of trading securities where issues are traded by computer either intra-day or overnight. Reduces or eliminates market impact of trading and brokerage commissions.

Derivative - a financial obligation that derives its precise value from the value of one or more other instruments (or assets) at that same point in time.

Equity Investment - claims held by the residual owners of a firm. May also be referred to as common stock.

Fiduciary - one who can exercise discretionary authority or can control important aspects of a pension plan's management.

Fixed Income Investment - a security issued by a borrower that obligates the issuer to make specified payments to the holder over a specific period. May also be referred to as "debt" or "bonds".

Futures – an exchange traded contract providing for the forward delivery of a security, commodity or bundle of such instruments at pre-specified prices. Some futures require cash settlement rather than actual delivery.

Marked-to-Market - revaluation of securities to market value.

Private Placement - issuance of debt or equity directly to an investor or investors.

Proxy - an instrument empowering an agent to vote for a shareholder.

Rebalancing - realigning the proportions of assets in a portfolio as needed.

Risk - the uncertainty of outcome or the likelihood of a loss.

Separate Account - funds managed on an individual account basis; no pooling with other investors. The client owns the securities.

Short-Term Investments – any fixed income investment with less than one year to maturity.

Soft Dollars - the value of goods or services that brokerage houses supply to investment Managers "free of charge" in exchange for the investment Managers' business.

Total Return - interest or dividend income plus any realized or unrealized capital gain (or loss) on an investment.

Appendix I

Portfolio Rebalancing Policy
The Public School
and
The Non-Teacher School Employee Retirement Systems of Missouri

Introduction
The Board is responsible for asset allocation decisions, and will periodically review its target allocations to confirm or adjust the targets (see Section III). Until such time as the Board changes the asset allocation ranges, it will be necessary to periodically rebalance the portfolios as a result of market value fluctuations. Rebalancing portfolios involves the periodic transfer of funds from investment strategies that have performed well to strategies that have not performed as well to ensure an optimal balance is maintained.

Portfolio rebalancing is an important component of investment policy. One of the biggest challenges in managing institutional assets is avoiding the pressure to shift the asset mix in a reactive manner after a meaningful market movement. As markets decline during periods of uncertainty, investors' emotions can override rational decisions and sound long-term investment programs can be abandoned at precisely the wrong time. This tendency is part of human nature. In order to ensure that long-term asset class targets are maintained during all types of market conditions, the Systems use a disciplined portfolio rebalancing process.

The adoption of a formal rebalancing mechanism is a complex decision; no one rebalancing rule is appropriate for all circumstances. In determining the most appropriate policy two important, though potentially competing, objectives were carfully considered:

- Controlling portfolio risk as measured by negative tracking error to the policy benchmark, and
- Minimizing transaction costs and portfolio disruptions.

Factors that influence the choice of a rebalancing policy include: plan size, asset allocation, manager structure, the relative volatility of asset classes, and the correlations between asset classes. The Systems' have incorporated all of these factors into crafting a rational, systematic, and cost-effective 'trigger points' approach to portfolio rebalancing.

Policy and Procedures
Small variances between actual and target allocations do not warrant rebalancing. Instead, a rebalancing event is initiated if the percentage of the Systems' assets in a particular asset class has deviated from the target beyond a specified 'trigger point.' Portfolio rebalancing will be conducted in such a manner that transaction costs and portfolio disruptions are minimal. The Investment Staff is responsible for rebalancing the Systems' portfolios and for reporting rebalancing activity to the Board at the regular

Board meetings. The rebalancing 'trigger points' and the corresponding rebalancing targets for PSRS/NTRS are as follows:

ASSET CLASS	Lower Trigger Point	Lower Rebalancing Target	Allocation Policy Target	Upper Rebalancing Target	Upper Trigger Point
Domestic Equity	34.50%	36.00%	37.00%	37.50%	39.00%
Non-U.S. Equity	13.00%	14.00%	15.00%	15.50%	16.50%
Fixed Income and Real Return Pool	42.50%	45.00%	45.00%	46.00%	47.50%
Private Equity[7]	N/A	N/A	3.00%[8]	N/A	N/A

The rebalancing targets shown in the table do not necessarily coincide with the asset class policy targets. For example, if the actual domestic equity allocation reaches 39.1 percent (the upper 'trigger point'), Staff will rebalance the domestic equity allocation back to the upper rebalancing target (37.5 percent), instead of the allocation policy target (37.0 percent). Rebalancing targets are utilized based on the Systems' belief that bringing an asset class back to the policy allocation is typically not optimal in terms of minimizing transaction costs. At some point between the rebalancing target and the policy allocation, the incremental impact on tracking error no longer justifies the incremental transaction costs.

The Systems also utilize asymmetric 'trigger points.' For example, the lower 'trigger point' for domestic equity is 2.5 percentage points below the allocation policy target. The upper 'trigger point,' on the other hand, is only 2.0 percentage points above the policy allocation. Research suggests asymmetric boundaries are more cost efficient over time than symmetric boundaries, especially when expected returns vary greatly across asset classes. This is because a shortfall that develops in the allocation to a higher return asset class (such as domestic equity) is more likely to be self-correcting, reducing the need to rebalance as frequently.

As stated, if any one asset class hits a 'trigger point,' the result will be to rebalance that asset class and those other asset classes that have the greatest potential for stabilizing performance relative to the policy benchmark, subject to potential size limitations. There are many ways that a potential rebalancing might occur. Outlining a step by step process in this Investment Policy would only serve to encumber the flexibility needed to rebalance in the most efficient manner possible. Circumstances surrounding individual managers at the time a 'trigger point' is reached will dictate the precise manner in which

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[7] *Due to the illiquid nature of the asset class, private equity has no rebalancing trigger points.*

[8] *The Board has adopted a 3% allocation to private equity. In the interim (prior to funding) 2% of the allocation is directed to fixed income and 1% to domestic equity.*

the portfolios are rebalanced. At all times, the Investment Staff will proceed with a portfolio rebalancing event with the goal of optimizing the tradeoff between controlling portfolio risk as measured by negative tracking error to the policy benchmark, and minimizing transaction costs and portfolio disruptions.

Appendix II

Liquidity Management Policy
The Public School
and
The Non-Teacher School Employee Retirement Systems of Missouri

Introduction

PSRS reached the point in mid-1999 where monthly contributions did not always cover monthly benefits. This is not a sign of a liquidity crisis, rather it is a normal characteristic of a maturing pension fund.

Policy and Procedures

On the 20th of each month, or the next business day thereafter, the amount of cash in the cash clearing account will be evaluated to determine if there will be adequate liquidity to fund the monthly benefit payment. In the event there is not, the Investment Staff will determine which manager(s) to utilize to raise the needed funds.

In determining which manager(s) to utilize, the following factors will be considered:

- Amount of cash in the managers' portfolio
- Pending trade activity
- Current asset allocation versus the policy target
- Managers' current allocation versus the policy target

As of October 2002, NTRS was in the position where monthly contributions exceeded monthly benefits. This excess accumulates in the cash clearing account. Staff will monitor the monthly excess to determine when cash should be drawn down and distributed to investment manager(s).

In determining the manager(s) to receive funds, the following factors will be considered:

- Probability of a rebalancing event
- Current asset allocation versus the policy target
- Managers' current allocation versus the policy target

Staff will consider all of the above factors to determine the most efficient manner to distribute excess funds to investment manager(s).

Appendix III

Investment Manager Retention Policy

The Public School
and
The Non-Teacher School Employee Retirement Systems of Missouri

Introduction

Investment experts agree that asset allocation is the most important decision made by a pension fund. The second most important decision is that of manager selection. A great deal of effort goes into the selection of investment managers that constitute a fund's manager structure. Unfortunately, manager retention decisions are generally made on a much more ad-hoc basis - yet this decision has the same potential impact on returns as does the initial selection of the manager.

The decision to replace an inferior (or unskilled) investment manager with a superior (or skilled) investment manager seems quite simple, with obvious benefits for the system. The decision process, however, is not as elementary as it might seem. The complicating factor lies in the inherent variability of investment returns. The dynamics and inefficiencies of the capital markets, which investment managers are hired to exploit, make straightforward evaluations of manager skill very difficult. This complexity can, in turn, result in poor investment manager retention decisions. A faulty analysis may have potentially high costs if the conclusion results in a:

- Type I Error: the retention of an unskilled manager, or
- Type II Error: the premature termination of a skilled manager.

In addition, a fund must also consider the cost of transitioning assets between managers. These transaction costs are not inconsequential, yet are of secondary consideration in comparison to the cost of retaining an unskilled manager. In order to make both sound hiring and sound retention decisions, a pension fund must make reliable assessments of an investment manager's skill. Without such an assessment, there is little assurance that a manager selected today will outperform a manager that was terminated yesterday.

Objectives and Principles

The following Investment Manager Retention Policy provides a systematic, consistent and rational framework for manager retention decisions. The Policy allows for the identification of existing and potential problems, and outlines how and when PSRS/NTRS should address specific issues and events, thereby avoiding untimely or ad-hoc decisions that may adversely impact fund returns. This policy will apply to all of the Systems' external managers, except where otherwise noted, and is intended to:

- foster a long-term approach to manager evaluations,
- provide a logical and statistically valid framework for manager skill evaluation,

- promote timely and appropriate responses to actual and potential performance issues, and
- provide flexibility to allow application across all asset classes, management styles, and market environments.

When conducting a search for a potential investment manager, efforts are made to determine the likelihood of *future* success. It is important to maintain this same focus when conducting a retention analysis on an existing investment manager. There are two broad categories of analysis for evaluating investment manager performance - quantitative and qualitative. Quantitative assessments of manager success are useful in judging *past* investment success. They are, however, much less successful predictors of *future* performance. Quantitative tools, such as cumulative and rolling returns, will be used in this Retention Policy to identify performance shortfalls relative to the manager's specific benchmark. Qualitative assessments of the investment manager's philosophy, organizational structure and depth of personnel are helpful in identifying the source of the shortfall. Both types of analysis will be employed to allow for the identification of both actual and potential performance problems.

Monitoring Investment Managers

The Systems' investment managers are monitored on an ongoing basis by the Investment Staff and Consultant. It is through this monitoring process that Staff and the Consultant gather the information necessary to conduct quantitative and qualitative evaluations of investment manager performance. Contact with the managers is quite frequent, in some instances on a daily basis. A formal schedule for official meetings with investment managers exists, along with formal performance reporting requirements. Investment performance reports are provided to the Systems by the managers, the custodian, and the Consultant.

Manager Meeting Frequency and Content

Staff will meet with each investment manager at least once a year (in PSRS/NTRS's offices or on-site with the investment manager). Additionally, Staff will meet with each manager at least once each year through video or audio conferencing. Each meeting will include a review of the investment manager's performance, current investment strategy, and other issues related to the manager's organization, personnel, or investment process. The managers may collectively meet with the Board of Trustees for a strategic investment planning retreat at some point during each fiscal year. Any investment manager may be called to appear before the Board at any time during the fiscal year.

Performance Reporting

All investment managers under contract with PSRS/NTRS will report investment performance to Staff on a quarterly basis. The reports for public market managers will utilize a standardized reporting format specified by the Systems. There are no exceptions. Managers may provide their standard performance information in a different format as supplemental information only, at their discretion.

The Systems' Custodian shall provide monthly performance reports to the Staff. These reports will detail the individual performance of Managers and the overall performance of the fund. Additional performance reporting will be provided to the Board of Trustees by the Investment Consultant. The Consultant will provide verification of performance numbers generated by the Custodian on a quarterly basis. This information will be presented to the Board by the Consultant at regular Board meetings. These reports will include, at a minimum, comparison with the Total Fund Objectives.

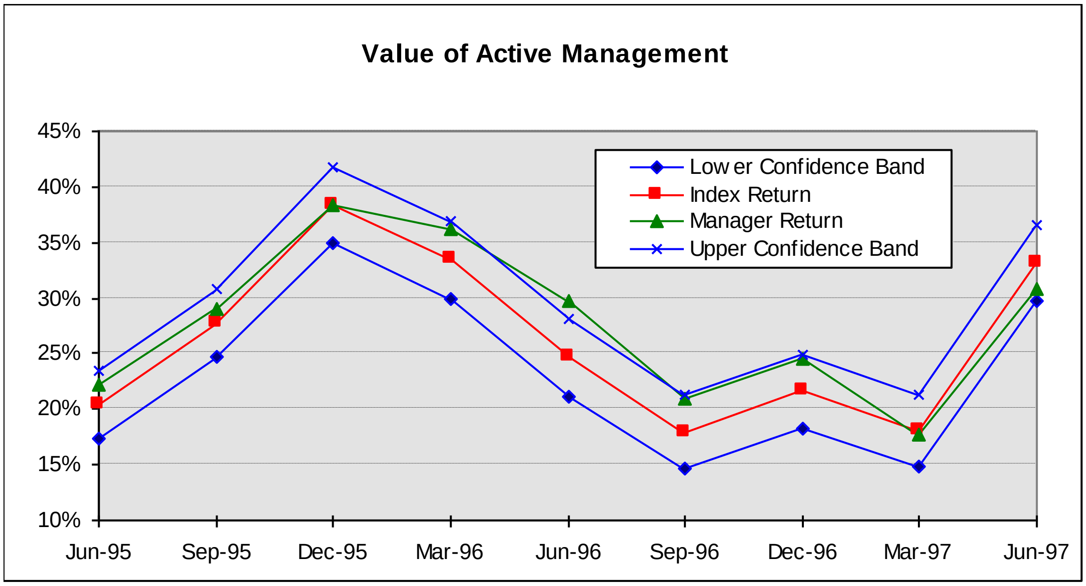
Quantitative Analysis
In order to evaluate public markets manager skill, cumulative or rolling assessments of tracking error will be calculated for each external manager investing PSRS/NTRS's assets in publicly-traded securities. Due to the differences between active and passive management, separate standards will apply.

Passive Managers
Passive management strategies exhibit low variability of returns, and also have a zero-alpha performance expectation relative to each specific index. For these reasons, PSRS/NTRS will use annual tracking error objectives outlined in each passive manager's investment guidelines to monitor performance. Enhanced passive strategies with explicit alpha expectations will be considered active management strategies for the purposes of monitoring performance. As such, enhanced passive strategies will be subject to the "Active Manager" guidelines outlined in the following section.

Active Managers
The quantitative evaluation of active investment managers is a complex process. There is significant volatility in active manager returns (relative to the manager's benchmark), and this volatility makes it very difficult to assess whether a manager's over- or under-performance is the product of random volatility or true investment skill. A proper quantitative analysis must therefore consider the variability of a manager's excess return, in addition to the absolute magnitude of the excess return, when making judgments about manager skill.

It should be expected that skilled managers will often have periods of under-performance, as it should be expected that unskilled managers will often experience periods of over-performance. Due to the inherent volatility of active manager returns relative to an assigned benchmark, investment manager skill must be evaluated from a long-term perspective. Over time, skilled managers will produce a higher average excess return more frequently than will unskilled managers. Depending on the availability and appropriateness of each manager's historic quarterly return series, manager skill should be evaluated on a five-year rolling average basis.

Once the quarterly returns of both the manager and the benchmark have been linked and annualized, a Small-Sample Confidence Interval will be developed to identify acceptable bands of over- and under-performance. Standard statistical modeling will be utilized to construct an 80% confidence interval. Under this approach, it may be assumed that a manager's returns will fall between the upper and lower tolerance limits 80% of the time. Instances of performance exceeding these tolerances may be due to random volatility. Consecutive periods of over- or under-performance may also be due to random volatility, or may be an indicator of a problem or potential problem with an investment manager that requires the attention of the Board. The following chart graphically illustrates this methodology:



The picture above depicts a statistically valid method of assessing the variability of manager performance relative to an agreed-upon benchmark, and is referred to as a VAM (Value of Active Management) graph. The Index Return line represents the return on the benchmark over moving five-year periods. Investment Manager Performance exceeding (or conversely, falling below) the benchmark over the preceding five years will plot above (or conversely, below) the horizontal line. The area between the Upper and Lower Confidence Bands represents a "confidence interval" based on the return volatility of the manager's agreed-upon benchmark. Returns within the confidence interval represent performance due either to skill or to chance. Returns falling outside the confidence interval represent superior or inferior performance significant enough that the odds of it being due to chance are low.

This confidence interval methodology will be used to highlight quantitative performance concerns by drawing a VAM graph similar to the one above for each active manager employed by the Systems. The VAM graph will plot performance relative to the agreed-upon benchmark, net of fees, and will include the performance history that led the Systems to retain the investment manager as well as PSRS/NTRS's actual experience. Utilization of a five-year rolling average time frame properly puts manager evaluation into a larger context and should assist the Systems in identifying unusual, deteriorating performance from random volatility in an active manager's returns. The width of the confidence interval is dependent on the volatility of the benchmark used by the manager. This methodology can therefore be applied across all publicly-traded asset classes in

PSRS/NTRS's investment strategy. As a result, the confidence interval methodology will tailor itself to each individual investment manager's approach.

QUANTITATIVE ANALYSIS - "RED FLAGS" AND RECOMMENDED ACTIONS

As stated earlier, a number of factors may contribute to a manager's over- or under-performance at any given time - market dynamics, investment skill, and/or pure chance. Given this uncertainty, it is unwise to mandate termination for lagging performance at any specific point. After implementing the previously-described methodology and constructing VAM graphs for each manager, the following guidelines will be used for review of an active manager's status:

A. if the manager's rolling, five-year return plots below the rolling, five-year benchmark return for four (4) consecutive quarters, the manager will be placed on a Watch List. Once a manager is placed on a Watch List, performance will be closely monitored and scrutinized. Additional actions could include staff meetings with the manager or a formal re-interview of the manager by the Board. Generally, two (2) consecutive periods of rolling, five-year return plots above the benchmark line following placement on the Watch List will result in the manager's removal from that list. The observation process will at this point begin again.

B. if the manager's rolling, five year return plots below the lower confidence band for two (2) consecutive quarters, a Comprehensive Review will be initiated. The Watch List is bypassed in this case. Breaching the lower confidence band indicates a serious performance problem which should be addressed, in-depth, as soon as possible. A Comprehensive Review is a thorough, in-depth due diligence effort, similar in scope to PSRS/NTRS's highly-structured manager search process. A Comprehensive Review explores all elements of a manager's organization, personnel, investment philosophy and process. Also, this Review may include a formal re-interview of the manager by the Board. A Comprehensive Review will be completed within 90 days of initiation.

The ultimate outcome of a Comprehensive Review is a decision to retain or terminate the investment manager in question. **A Comprehensive Review does not force termination.** The review will focus on whether the firm should be re-hired today given current events and prevailing circumstances. A decision to retain a manager may include certain conditions that the manager must satisfy, and may also include a probationary period.

QUALITATIVE ANALYSIS - "RED FLAGS" AND RECOMMENDED ACTIONS

In-depth qualitative analysis is conducted on potential investment managers during the Systems' systematic manager search process. This analysis covers areas such as style, philosophy, process, personnel, and organizational structure. Similar analysis will be employed on an ongoing basis during the contract period with each manager, whether passive or active, hired by the Board.

A significant and potentially adverse event related, but not limited, to any of the following qualitative issues or events will be considered a "Red Flag" - a problem or potential problem - by the Staff or Consultant. Generally, "Red Flags" will be reported to the Board of Trustees at its next regular meeting. If the issue is considered serious enough, a special meeting of the Board may be called by the Executive Director, based on recommendations by the Chief Investment Officer and/or Investment Consultant. Examples of "Red Flags" include, but are not limited to:

- significant changes in firm ownership and/or structure,
- loss of one or more key personnel,
- significant loss of clients and/or assets under management,
- shifts in the firm's philosophy or process,
- significant and persistent lack of responsiveness to client requests,
- changes in PSRS/NTRS's investment strategy eliminating the need for a particular style or strategy, or
- chronic violations of PSRS/NTRS's investment policy or investment manager guidelines.

Should any of these "Red Flags" be raised, the recommended courses of action are similar to those contained in the preceding section. After an assessment of the nature of the problem or potential problem, the Board should then make a determination as to the appropriate course of action. Possible responses include, but are not limited to:

- no action,
- placement on a Watch List,
- staff meetings with the manager,
- formal re-interview of the manager by the Board, or
- initiation of a Comprehensive Review.

Because of the subjective nature of Qualitative Analysis, each situation should be handled on a case-by-case basis. A "Red Flag" does not necessarily require immediate action or reaction on the part of the Systems.

Conclusion

This Investment Manager Retention Policy provides guidelines that are useful in determining the conditions under which a contract relationship between an investment manager and PSRS/NTRS should be called into question, and depicts circumstances where the Board of Trustees may elect to terminate a manager for cause (all of PSRS/NTRS's investment manager contracts may be terminated, with or without cause, after five days' written notice).

A manager retention decision is very important to the continued success of a pension fund's investment strategy. As such, it should not be taken lightly nor should it be made with blind reliance on quantitative or qualitative guidelines. The adage "this is more art than science" is truly applicable. The ultimate decision rests in the collective judgment and authority of the Board of Trustees. **Nothing contained in this Investment Manager**

Retention Policy mandates retention or termination of an investment manager. As stated in the introduction, the objective of this document is to provide a long-term approach to manager evaluations in a systematic, consistent and rational framework. The Policy allows for the identification of existing and potential problems, and outlines how and when PSRS/NTRS should address specific issues and events thereby avoiding untimely or ad-hoc decisions that may adversely impact fund returns.

Appendix IV

Economically Targeted Investment (ETIs) Policy
The Public School
and
The Non-Teacher School Employee Retirement Systems of Missouri

Policy and Procedures
For purposes of definition, ETIs are " . . . investments that are selected for the economic benefits they create in addition to the investment return to the employee benefit plan investor."[9] The Board understands that this area is open to broad interpretation. The following criteria, applicable to any investment, will also be applied to investments that might be classified as ETIs:

1. The fiduciary principles of prudence and exclusive interest of participants will not be abrogated or modified in order to increase the attractiveness of ETIs.
2. There will be no concession on rate of return. This means there will be no hidden subsidies and that the classic "efficient frontier" test is applicable: a commensurate unit of return will be received for each unit of risk incurred.
3. All participation should be voluntary on the part of the Systems and should not stem from a legal or policy mandate.
4. Each ETI will be evaluated using an integral, objective process -- that is, each will be meticulously analyzed solely on its own risk/return characteristics. **No weight will be given to redeeming social interests.**
5. The Systems will participate only if at least one other comparable institutional investor is participating.

When evaluating an investment, appropriate consideration must be given to the role that the investment or investment course of action plays (in terms of diversification, liquidity, risk and return) with respect to the entire investment portfolio of the Systems. Consideration should also be given to alternative investments with similar risks available to the Systems. The Board believes this set of investment criteria is in full compliance with Section 105.688. RSMo., quoted previously in Section II of this document.

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[9] *Labor Department Interpretive Bulletin on Econmically [sic] Targeted Investments, June 23, 1994, 59 FR 32606, published by the Bureau of National Affairs Inc., Washington D.C.*

Appendix V

Brokerage Policy
The Public School
and
The Non-Teacher School Employee Retirement Systems of Missouri

Introduction

As part of its fiduciary responsibility to the Members, it is important that the Board maintain a prudent policy pertaining to brokerage commissions paid on securities transactions. The Board hereby delegates discretion over placement and execution of securities transactions to its managers subject to the constraints outlined below:

Best Execution

When trading assets under management, investment managers retained by the Systems are expected to seek best execution at the lowest net execution cost.

Average Commission Ceiling

The Systems' believe that electronic crossing networks (ECNs), discount brokerage and ongoing commission negotiations by investment managers with brokerage firms are prudent methods for controlling brokerage expenses. Both ECNs and discount brokerage have become increasingly efficient and cost-effective methods for equity trading. The presence of active and continual commission cost negotiations between investment managers and brokers facilitates the proactive reduction of brokerage expenses incurred by the Systems. In order to encourage usage of ECNs and discount brokerage, as well as proactive commission negotiation by equity investment managers, the Systems require that its equity managers closely monitor their brokerage commission expenses. Brokerage commissions vary with investment styles and philosophies; some transactions are more or less difficult to execute than others. Staff will negotiate an average commission per share ceiling with each individual Manager prior to funding as needed. This number shall be included in the specific manager guidelines detailed in the Operating Manual.

Each of PSRS/NTRS's managers will be required to provide Staff with a quarterly report showing all brokerage transactions effected on behalf of the Systems. In the event that average commissions exceed this ceiling, a detailed explanation of the reasons why must also be provided. The Custodian shall also provide brokerage commission information to Staff in its quarterly performance reports.

Directed Commission/Commission Recapture Programs

In instances where commissions are not effectively reduced through other methods, commission recapture can be utilized by the Systems to minimize brokerage costs. Commission recapture is the process whereby a plan sponsor receives a cash rebate from commissions generated through the buying and selling of its securities. The rebate represents a portion of the commission charged on these transactions. The rebated percentage is negotiated with the broker, who keeps a portion of the commissions for facilitating the trade and administration of the program.

Commission recapture has become a viable option for the Systems in recent years as augmentations resulting from increased competition have led to more favorable recapture rates, better trade execution, improved reporting and greater transparency. The Systems' program will be instituted with flexible and modest direction limits determined by the investment manager's style. Modest direction limits prevent recapture from inhibiting a manager's ability to receive best execution. Implementation decisions will be made on a manager-by-manager basis with cooperation and input from managers. Ongoing monitoring will be conducted by Staff to ensure the program functions effectively.

Investment staff will monitor the Systems' commission recapture program by periodically evaluating the quality of trade executions and explicit trading costs for directed trades, as well as analyzing target direction levels, reconciling directed trades and accessing the timeliness of recapture rebate receipts. The quality of trade executions for directed trades should be evaluated periodically for all investment managers participating in the commission recapture program. A determination of trade execution quality will be made from transaction analysis and periodic correspondence with investment managers. Market impact, opportunity, and timing costs will be examined when assessing directed trade executions. Trade direction should not affect quality of trade execution. The average level of explicit trading costs or commissions for directed trades will be evaluated at least annually. Commission costs for directed trades will be compared to those not directed. Trade direction should not result in an increase in average explicit commission cost. The target direction level set for each investment manager will be reviewed regularly for appropriateness. Investment mandate and style will be considered in determining target direction level. Each manager's participation in the program will be assessed by comparing actual to targeted direction. Directed trades identified by investment managers will be reconciled against those reported by commission recapture broker(s) on a periodic basis. Investment Staff will contact commission recapture broker(s) regarding trades omitted from recapture credit. Timeliness of recapture rebate credits will be assessed quarterly. Rebates for directed trades should be received from the commission recapture service provider(s) within the first 15 business days of the month following trade settlement.

The Systems will utilize one or more commission recapture service provider(s) to facilitate its program. Competitive recapture rates, an expansive correspondent broker network, and a strong back office infrastructure with a sound system of internal controls are among the selection criteria that will be incorporated to evaluate potential service providers. Only firms with the ability to provide commission recapture services without impacting the normal trading activities of the Systems' investment managers will be given consideration.

Staff will provide a quarterly report to the Board that details the revenue generated by the commission recapture program. The report will provide analysis by manager and by commission recapture service provider.

Soft Dollars

The Board recognizes that "Soft Dollar" Commissions are allowed under Section 28(e) of the Securities and Exchange Act of 1934 (commonly referred to as the 'Safe Harbor' provision). However, there is significant controversy surrounding the use and proper allocation of soft dollars by investment managers. The Board therefore requires its managers to provide accounting of soft dollar transactions involving securities of the Systems. The Board believes it is possible to make a reasonable, though admittedly imprecise, allocation of these commission dollars across manager accounts. These reports shall be provided quarterly to Staff, and shall include the number of shares traded, dollar amount of soft dollar commissions, the brokerage firms to which they were directed, and an explanation of the goods or services received.

Appendix VI

Proxy Voting Policy

The Public School
and
The Non-Teacher School Employee Retirement Systems of Missouri

Policy and Procedures

Individual investment managers will be responsible for voting proxies in the best interests of the members of the Systems. Each manager is responsible for maintaining records of how each proxy is voted and providing a report to the Investment Staff within thirty (30) days after fiscal year-end (June 30), detailing how their proxies were voted. Managers are expected to vote proxies to maintain or enhance shareholder value in the sole interest of the Systems, and will not support unethical, predatory, manipulative, or other actions that would not reflect the best interests of the Systems. The Board reserves the right to provide specific proxy voting direction to its managers at any time.

Appendix VII

Securities Class Action Litigation Policy
The Public School
and
The Non-Teacher School Employee Retirement Systems of Missouri

This statement sets forth the policy of PSRS/NTRS regarding potential participation as lead plaintiff in securities class action lawsuits.

Background

In fulfilling its fiduciary responsibility to prudently invest and manage the assets of the Systems, PSRS/NTRS invests in the stock of public companies ("issuers") through the use of external investment managers. From time to time, class action lawsuits are brought against the issuers, their directors, and/or their officers for alleged violations of federal and state securities laws relating to various disclosure obligations and, in many cases, other breaches of fiduciary or other duties. As a shareholder, the Systems are putative members of the alleged classes. When notification is distributed regarding the potential securities class action litigation, action is required in order for the Systems to participate as a member of the alleged classes (as are most or all of the other shareholders). Frequently, PSRS/NTRS receives solicitations from attorneys who seek to represent PSRS/NTRS in these class action lawsuits.

Appointment as a Lead Plaintiff

Under the federal Private Securities Litigation Reform Act of 1995, federal courts are required to appoint one or more members of the putative class to serve as the lead plaintiff(s) in securities class action lawsuits. *See* 15 U.S.C. § 78u-4(a)(3)(B). The Act provides a rebuttable presumption that the lead plaintiff is to be the investor with the largest financial interest in the relief sought by the lawsuit, who wants to serve as the lead plaintiff. *See* 15 U.S.C. § 78u-4(a)(3)(B)(iii). Typically, this means that those investors with the largest holdings in the defendant issuer's stock have the right to serve as the lead plaintiff.

In most securities class action lawsuits, several other investors, including many institutional investors with substantially greater investment portfolios than PSRS/NTRS, hold more shares in the defendant issuer than PSRS/NTRS holds and, thus, have a larger financial interest in the relief sought. Accordingly, in most such lawsuits, an investor other than PSRS/NTRS will have the right to serve as the lead plaintiff.

Financial Risks of Serving as Lead Plaintiff

There are financial risks in serving as a lead plaintiff in a securities class action lawsuit. Serving as lead plaintiff or being designated lead plaintiff may have financial risks if the litigation is unsuccessful. Unless the lead plaintiff negotiates an allocation of potential financial risk with other named plaintiffs, the lead plaintiff could bear the costs, expenses or, potentially, attorneys' fees of the opponent if the litigation is unsuccessful or the court grants sanctions under Rule 11 of the Federal Rules of Civil Procedure. Finally, regardless of the outcome of the lawsuit, class members could potentially pursue claims against the lead plaintiff for inadequately representing their interests.

In return for assuming these financial risks, the lead plaintiff does not obtain any additional financial benefit from serving as a lead plaintiff, but, instead, shares any final judgment or settlement with the class members on an equal, per share basis (although the lead plaintiff may also recover its attorney's fees, costs, and expenses if the lawsuit is successful or a settlement is obtained). *See* 15 U.S.C. § 78u-4(a)(4).

PSRS/NTRS' Policy

Based on the foregoing, it is PSRS/NTRS' policy generally not to serve as a lead plaintiff in securities class action litigation. Any exceptions will be determined on a case-by-case basis in those rare instances where PSRS/NTRS is among the largest shareholders of the defendant issuer and service as a lead plaintiff is determined to be in the best interest of the Systems. The exceptions will be reviewed by the Executive Director, General Counsel and Chief Investment Officer of the Systems and ultimately will be decided upon by the Board of Trustees.

In all cases, the Systems require their external investment managers to be familiar with all securities class action litigation involving securities held (or held in the past) in the Systems' portfolios under their direction. It is each manager's fiduciary responsibility to ensure that PSRS/NTRS are participants in any securities class action litigation where the manager believes it is in the Systems' best interest. As a supportive means to ensure that PSRS/NTRS are class member participants in the appropriate instances, the Systems' Custodian is required to notify the Investment Staff when it receives notification regarding securities class action litigation involving securities currently held (or held in the past) in the PSRS/NTRS investment portfolios. The Investment Staff is then responsible for instructing the Custodian to file claims on behalf of the Systems' in the appropriate instances.

Appendix VIII

E-MAP Implementation Manual

The Public School
and
The Non-Teacher School Employee Retirement Systems of Missouri

I. Introduction

On October 19, 1999 the Board of Trustees of The Public School and The Non-Teacher School Employee Retirement Systems of Missouri (PSRS and NTRS, respectively, and hereinafter collectively referred to as 'PSRS/NTRS' or 'Systems') approved the Equity-Manager Alpha Pool (E-MAP) Program as an enhancement to the PSRS and NTRS Domestic Equity portfolios. E-MAP is a multi-manager asset pool employing a diverse set of investment strategies that is treated generally as a single portfolio within the overall Domestic Equity structures of PSRS and NTRS. The Investment Staff, with assistance from the External Asset Consultant (Consultant), is charged with administering the E-MAP Program. The Investment Staff and Consultant are jointly responsible for manager hiring and termination decisions, the development and implementation of investment strategies, and manager allocation policies and practices. Specific investment strategies approved for E-MAP include: traditional long-only active domestic equity management, long/short active domestic equity management, market neutral/near market neutral active domestic equity management, and U.S. equitized multi-asset directional and non-directional strategies.[10] Exposure to the various segments of the domestic equity market (i.e., growth-oriented, value-oriented, small-cap and large-cap) and to the approved investment strategy types listed above will be achieved through the identification, selection and and on-going management of SEC-registered[11] investment advisors qualified to serve as fiduciaries to the Systems. In total, the allocation to investment strategies other than traditional long-only active domestic equity management shall not exceed 60.0 percent of the market value of the assets allocated to E-MAP.[12] The Board set the initial allocation to the E-MAP Program at 9.0 percent of the Domestic Equity allocation (or, 3.33 percent of Total Fund assets). On December 14, 1999 the Board adopted the policies and procedures for E-MAP set forth in this Implementation Manual. The E-MAP Implementation Manual was revised on October 25, 2004.

II. Statement of Purpose of Implementation Manual

The Implementation Manual provides formal documentation of the investment policies and procedures for E-MAP and is incorporated into the Systems' Investment Policy as Appendix VIII. The document serves as a reference point for the management of E-MAP assets by providing a clear definition of the

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[10] *A full definition of each investment strategy type is contained in Section III – Approved Investment Strategies.*

[11] *Refers to external investment advisors that are registered with the Securities & Exchange Commission.*

[12] *The full set of investment guidelines for E-MAP is covered in section VI – Implementation.*

Program's philosophies, objectives, and practices and also gives guidance to those responsible for overseeing and administering the program – that is, the Board, Executive Director, Investment Staff and Consultant.

The Implementation Manual is intended to serve in tandem with the Investment Policy as it relates to E-MAP. Certain sections of this document, however, specify investment practices that are unique to E-MAP and, as a result, deviate significantly from language contained in the body of the Investment Policy. The following segments of this manual provide direction for the management of E-MAP assets that supercede various portions of the Investment Policy document:

- III. Investment Philosophy,
- IV. Responsibilities,
- V. Manager Hiring and Termination Policy, and
- IX. Implementation.

The remainder of the Investment Policy is specific to the E-MAP Program in the following sections:

- VI. Permissible Investments,
- VII. Responsibilities of External Investment Managers,
- VIII. Performance Measurement, and
  Brokerage Policy (Appendix V).

The development and maintenance of the Implementation Manual is the responsibility of the Investment Staff. Any revisions to the policies and procedures set forth herein must be approved by the Board of Trustees. The Lead Consultant is also expected to sign off on changes to the directives specified in this document. The Implementation Manual may be revised at any time.

III. Investment Philosophy

E-MAP is a multi-manager asset pool with a distinct and separate set of investment objectives and guidelines that is treated for purposes of strategy formulation, risk management, asset class rebalancing and Board-level performance reporting as a single portfolio within the overall structures of PSRS and NTRS. The E-MAP Program is designed to provide diversification, risk control and the opportunity for excess returns without materially changing the overall objectives and risk/return profile of the Systems' Domestic Equity allocation. E-MAP is also expected, over time, to provide an effective vehicle to implement new investment initiatives and to address the continued growth of PSRS/NTRS's Domestic Equity assets.

The Systems will employ a number of specific investment policies and practices that are unique to the E-MAP Program. These policies and practices are described in the paragraphs that follow.

A. E-MAP Performance Objective

The performance objective for E-MAP is to exceed the returns of the broad domestic equity markets while incurring a level of risk that is generally consistent with the policy benchmark. E-MAP utilizes the same policy benchmark as the Domestic Equity Composite – that is, the Russell 3000 Index. Based on the Systems' general beliefs and expectations regarding the level of excess returns that can be generated by a carefully reasoned combination of active management styles, the following performance objective has been established for the E-MAP Program:

E-MAP Performance Objective

The performance goal of the E-MAP portfolio is to achieve a net-of-fees return that is 100-200 basis points above the return of the Russell 3000 Index over a full market cycle.[13]

In order to achieve the performance objective specified above, it is anticipated that at times the E-MAP portfolio will differ significantly from the Russell 3000 Index in terms of portfolio construction and risk characteristics. While these differences will likely result in short-term return volatility relative to the benchmark (i.e., tracking error), the combination of investment strategies utilized in E-MAP are expected to provide favorable risk-adjusted rates of return over full market cycles.

B. Delegation of Manager Hiring and Termination Decisions

The Board of Trustees has delegated to the Investment Staff and Consultant all manager hiring and termination decisions within E-MAP. The Executive Director, Chief Investment Officer and Lead Consultant must unanimously agree upon all manager hiring and termination decisions in writing. The Board reviews hiring decisions in an open Board meeting prior to the execution of a contract with an external service provider. The Staff will inform the Board in writing within 72 hours of a termination decision. The specific details regarding the Systems' Manager Hiring and Termination Policy for E-MAP are described in section V.

C. Emphasis on 'Alpha Generating' Strategies

The manager structure for E-MAP, along with the search process to identify qualified service providers, will focus on (but not necessarily be limited to) the retention of active investment managers with the ability to generate significant returns in excess of the appropriate benchmark over a full market cycle. These managers will strive to add value through superior stock selection and other active management decisions. The ultimate objective of the manager search process is the identification of a unique set of long-term portfolio construction specialists that have the conviction to implement their 'best' investment ideas.

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[13] *Net-of-fees comparisons will take into account all incremental costs associated with the E-MAP Program, including manager fees, incremental custodial costs, and incremental staff and consultant expenses.*

Typically, investment strategies that place a higher emphasis on sustainable alpha are inherently more volatile (i.e., more risky) than highly diversified or index-like portfolios when viewed in isolation. One of the goals of E-MAP will be to develop the optimal combination of alpha generating strategies that, when viewed in the aggregate, will provide the required level of diversification and risk control without sacrificing the opportunity for excess returns. Enhanced index strategies will also be considered as part of the E-MAP structure as a method to control aggregate risk and gain broad exposure to the domestic equity markets.

D. Approved Investment Strategies

The Board has approved the following types of broad investment strategies for inclusion in the E-MAP Program:

- **Traditional long-only active domestic equity management** – The traditional form of active management whereby investment managers are allowed to own (or overweight) positions in securities they believe are attractive investments and not own (or underweight) stocks that are believed to be unattractive. Within long-only mandates, the ability to sell short securities is expressly prohibited.
- **Long/short active domestic equity management** – An active portfolio management strategy that allows managers to own (or overweight) securities they believe to be attractive investments and not own, underweight or sell short securities believed to be unattractive investments. Typically with long/short mandates, the aggregate of the long positions and short positions equal full market exposure (i.e., a beta of 1.0) with alpha (or value added above benchmark returns) coming from stock or sector selection, not from an adjusted market beta (for example, a portfolio with 120% long exposure and 20% short exposure equals full market exposure, or an approximate portfolio beta of 1.0).[14] Long/short mandates require a prime brokerage account, the potential use of futures contracts and occasionally tri-party custodial agreements. While the investment manager to implement the long and short positions typically leverage the portfolio on a limited and controlled basis to facilitate the obtainment of proper portfolio positions, a long/short portfolio will generally not have any material net leveraged exposure to the stock market (i.e., leveraged beta). The leveraging of a portfolio can, however, increase the level of active management risk.
- **Market neutral/near market neutral active domestic equity management** – An active portfolio management strategy that allows managers to own (or overweight) securities they believe to be attractive investments and not own, underweight or sell short securities

[14] *Long/short managers, to ensure that market risk is appropriately managed, use a variety of sophisticated risk control measures.*

believed to be unattractive investments. Market neutral differs in part with long/short mandates in that managers utilize as much as 90% long positions and 90% short positions with little or no beta exposure to the market (a beta of approximately 0.0) unless additional passive beta exposure is desired (for example, 90% long positions and 90% short positions equals zero market exposure, or an approximate portfolio beta of 0.0). Beta, if desired, is then achieved through the use of S&P 500 futures contracts to replicate passive market exposure. Market neutral portfolios require a prime brokerage account and the use of futures if market exposure is desired. While the manager to implement market neutral strategies typically leverage the portfolio on a limited and controlled basis to facilitate the obtainment of proper portfolio positons, a market neutral portfolio will generally not have any material net leveraged exposure to the stock market (i.e., leveraged beta). The leveraging of a portfolio can, however, increase the level of active management risk.

- **<u>U.S. equitized multi-asset directional and non-directional strategies</u>** – These strategies seek diverse sources of alpha generation to be layered onto passive exposure to domestic stocks (sometimes referred to as 'portable alpha'). By separating beta (the underlying exposure to domestic stocks) from alpha, managers in this space are able to look across a large cross section of global alpha opportunities to add value above domestic equity benchmarks, such as the S&P 500 Index. These approaches include global macro, global and event driven. Global macro strategies are defined as taking long and short positions based on top-down macroeconomic anlysis (i.e., interest rates, foreign exchange rates and commodity prices). Global strategies involve long and short positions in securities of diverse geographical regions such as developed and emerging markets. Event driven strategies involve taking long and short positions in order to exploit the relative valuation differentials between securities rising from transactional events such as spinoffs, mergers/takeovers, and reorganizations. Operational requirements for multi-asset directional and non-directional strategies are manageable, but can be somewhat more complex that U.S. long/short and market neutral. These strategies are also more apt to be offered as part of a fund structure, reducing the operational complexities faced by the Systems.

Exposure to the various segments of the domestic equity market (i.e., growth, value, small-cap and large-cap) and to the approved investment strategy types listed above will be achieved through the identification, selection and and on-going management of SEC-registered investment advisors qualified to serve as fiduciaries to the Systems. Investment advisors not registered with the Securities & Exchange Commission (SEC) will be excluded from the E-MAP Program. In total, the allocation to investment strategies other than traditional long-only active domestic equity management shall not exceed 60.0 percent of the market value of the assets allocated to E-MAP.

E. Intensive Analysis of Manager Combinations

Individual manager strategies can appear risky when viewed in isolation. When carefully reasoned combinations of diverse investment strategies are viewed in the aggregate, the resulting portfolios can produce a return pattern over time that exhibits very favorable risk/return characteristics. With that goal in mind, the Staff and Consultant will give careful consideration to manager combinations through the incorporation of sophisticated risk management techniques. This intensive analysis of the way in which individual portfolios perform within a larger composite will be part of the manager search process and the ongoing evaluation of the E-MAP Program.

F. Increased Manager Opportunity Set

Due to the smaller individual assignment sizes within E-MAP, the universe of potential service providers is significantly increased. The Systems' employ a rule that PSRS/NTRS's assets shall not account for more than 25.0 percent of a manager's assets in a given product. This rule is applied to the entire manager structure, including the E-MAP portfolio. The combination of PSRS/NTRS's very substantial asset base and application of the 25.0 percent rule can result in the elimination of a number of quality investment management firms from the search for qualified service providers. The smaller account sizes within E-MAP will help alleviate this problem, allowing for a greater reliance during the search process on screens that are designed to identify firms with creative and unique investment philosophies that also have the internal resources needed to replicate past success.

G. Manager Allocation Strategies

Allocations to the E-MAP managers may be altered over time as a means to control risk and add incremental excess returns. Actual allocations to E-MAP managers may deviate from initial targets as a result of market fluctuations or from the transfer of assets from one manager to another. The manager allocation strategies employed within E-MAP may from time to time result in modest 'style tilts' to the portfolio. All active decisions to reallocate funds within E-MAP that result from changes in the target manager weights are based on a careful assessment of the expected relative risk and return potential for each manager. Incorporation of tactical manager allocation strategies is expected to improve the risk/return profile of E-MAP without materially impacting the broader Domestic Equity structure. The Guidelines for Manager Allocations are described in section VI of this document.

H. Use of Leverage

The process of applying leverage to a portfolio may be used by investment managers within the E-MAP Program on a limited and controlled basis as necessary to obtain proper portfolio positions within investment strategies other than traditional long-only active domestic equity management. At no time will any manager apply a leverage ratio greater than 2:1. Additionally, at no time will the E-MAP portfolio or any manager within E-MAP have any prolonged, material net leveraged exposure to the stock market (i.e., leveraged beta). While the use of leverage can increase the level of active management risk within a portfolio, each manager will be required to demonstrate the proper level of risk management sophistication required to limit unnecessary active risk.

IV. Investment Responsibilities

This section of the Implementation Manual specifically addresses the roles and responsibilities of the Board of Trustees, Executive Director, Investment Staff, Lead Consultant and Consultant Staff as they pertain to E-MAP. The Systems' Investment Policy describes the roles and responsibilities of the parties as they relate to other components of the PSRS/NTRS investment program.

Board of Trustees

The Board of Trustees has general oversight responsibilities for E-MAP to ensure the prudent utilization of the Systems' assets allocated to the program. The Board relies on the analysis and recommendations of the Investment Staff and Consultant prior to taking investment action pertaining to the program. The Investment Staff and Consultant provide information to the Board both prior to and during its regular meetings. The Board approves the policies and procedures for E-MAP contained in this Implementation Manual.

As part of the oversight process, the Board relies primarily upon the following:

- Independent, annual reporting by the Lead Consultant,
- Quarterly performance reporting for the E-MAP composite,
- Inclusion of E-MAP in the 'Adopt-A-Manager' program,
- Semi-annual written reviews by Staff, and
- Participation by the E-MAP managers in the annual Manager Symposium (when appropriate).

The E-MAP portfolio participates in the 'Adopt-A-Manager' program through meetings that occur at least annually with Staff, where Staff is the manager. The meetings serve as a formal review of the E-MAP Program, with meetings taking place in PSRS/NTRS's offices or the offices of the Consultant.

In addition to program oversight, the Board reviews manager selection and termination decisions made by the Investment Staff and Consultant Staff, relying upon information and analysis supplied by the parties as part of its review of this activity.

Executive Director

The Executive Director adds another layer of oversight and evaluation to E-MAP by ensuring that assets allocated to the program are invested in accordance with the Systems' policies and procedures. The Executive Director must agree in writing to all hiring and termination decisions prior to the execution or cancellation of a contract with external service providers. The Executive Director relies heavily on the Investment Staff and the Consultant in fulfilling these responsibilities.

Investment Staff

The Investment Staff is responsible for administering all facets of the E-MAP Program. Staff's responsibilities for E-MAP include, but are not limited to, the following:

- Development and maintenance of the Implementation Manual,
- Conducting manager searches with the Consultant Staff,
- Making manager hiring and termination decisions,
- Manager structure and the development and implementation of manager allocation strategies,
- Portfolio rebalancing,
- Monitoring and evaluation of external asset managers,
- Semi-annual written reviews,
- Reconciling performance reporting by the parties, and
- Evaluation and refinement of the Program.

As part of the evaluation of existing managers, Staff meets at least once per year with each firm to formally review performance and investment activity. Staff carefully monitors the managers to ensure compliance with the Systems' policies and procedures and to make sure each firm is adhering to the investment guidelines established for their mandate.

Staff meets each year with the Consultant to review the E-MAP portfolio and also participates in the PSRS/NTRS 'Adopt-A-Manager' Program. The Investment Staff works closely with the Lead Consultant and members of the Consultant's Staff.

External Asset Consultant

The Consultant's responsibilities are twofold. The primary duty is to provide an independent evaluation of the E-MAP Program to the Board of Trustees and is fulfilled by the lead member of Consultant's team. The Lead Consultant conducts a formal review of E-MAP, reporting to the Board annually. The Lead Consultant must agree in writing to all manager hiring and termination decisions. The Lead Consultant acts in an oversight role, reviewing and questioning the recommendations of the Investment Staff and Consultant Staff. Performance reporting by the Lead Consultant and/or Staff is incorporated into the Quarterly Performance Report to the Board as a single line item for the E-MAP composite.

The second component of the Consultant's responsibilities is assigned to members of the Consultant Staff. Members of the Consultant Staff work closely with the PSRS/NTRS Staff, providing an independent perspective on the program's administration. Staff members help conduct manager searches in combination with the Investment Staff and work with the Systems' in developing E-MAP policies and manager target allocations.

V. Manager Hiring and Termination Policy

Introduction

On December 14, 1999, The Board of Trustees of The Public School and The Non-Teacher School Employee Retirement Systems of Missouri ('PSRS/NTRS' or 'Systems') approved the policies and procedures for hiring and/or terminating external asset managers for the Equity-Manager Alpha Pool (E-MAP) Program. The following paragraphs serve to codify these practices.

The Board has delegated to the Investment Staff and Consultant all manager hiring and termination decisions within the E-MAP portfolio. In establishing this policy, it is the Systems' intention to assure interested parties that actions taken during the process of implementation and maintenance of the E-MAP Program occur in an environment of full disclosure that is characterized by competitive bidding, objective evaluation and thorough documentation. The overriding consideration with respect to all decisions is that they are made solely in the best interests of plan participants and beneficiaries.

To assure that all manager hiring and termination decisions adhere to the Board's intentions, all such actions shall be unanimously agreed to by the Executive Director, Chief Investment Officer and Lead Consultant. As part of their oversight responsibilities, the Board shall review all manager selections prior to the execution of an official contract with an external service provider. The Investment Staff will inform the Board within 72 hours of a manager termination decision. It is the responsibility of the Investment Staff and Consultant to provide the necessary documentation to the Board of Trustees once the decision to take investment action has been made.

Hiring and/or Termination of External Asset Managers

The Investment Staff and Consultant Staff will take action to hire or terminate external asset managers under one or more of the following circumstances:

- To initially implement a prudent and diversified manager structure for the E-MAP portfolio,

- When the need for an assignment type has been identified that will materially improve the diversification and/or risk-return profile of the portfolio,
- To remove one service provider in favor of another, and/or
- When the need arises to eliminate an assignment within E-MAP.

Documentation of the Decision-Making Process

Documentation materials prepared by the Staff and Consultant Staff regarding action to hire or terminate a manager(s) will include a full description of the reason for the action, the expected benefits resulting from the action and a full review of the decision-making process. The primary focus of the Staff and Consultant Staff when preparing documentation regarding the hiring and/or termination of external asset managers will be on providing the Board with the level of information necessary to satisfy all parties that decisions were well reasoned, carefully considered and prudent.

Minimum Criteria for External Asset Managers

In order to receive consideration for an assignment within E-MAP a manager must meet certain minimum criteria. In addition to these basic requirements that apply to all E-MAP searches, a manager must also comply with any additional search criteria defined by the Staff and Consultant Staff that have been established for a particular assignment. The minimum criteria for external asset managers are described below.

Organizational Qualifications. To be selected as an external service provider, a manager shall meet the following organizational criteria:

- Qualified to serve as a fiduciary to the Systems,
- Registered with the SEC ,
- Free of conflicts of interest, and
- Have a proven record of professionalism and ethical behavior.

In addition, a manager must have a level of assets under management so that the addition of funds from PSRS/NTRS will not cause the assets of the Systems to exceed 25.0 percent of the manager's total assets in the product.

Investment Style and Process. The investment style and process employed by a manager must be compatible with the Systems' investment objectives and policies. The manager should also have a proven record of adherence to an established investment philosophy over time.

Personnel. A manager must have an experienced professional staff with adequate support personnel to meet the necessary reporting requirements. A manager should be able to demonstrate policies designed to attract and retain key personnel.

Performance. The manager and/or its personnel shall have a demonstrated ability to achieve superior performance in the investment approach under consideration.

Manager Search Process

External asset managers qualified to fill assignments within the E-MAP portfolio are identified through the manager search process. The Investment Staff and Consultant Staff are charged with the responsibility of conducting the necessary searches for qualified service providers. Each step of the process is thoroughly documented in a Manager Search Book that is provided to the Executive Director and Board of Trustees for their review. The Search Book is intended to provide documentation that all relevant issues have been disclosed, that the search process was conducted fairly, and that the policies and procedures outlined herein were followed to the Board's satisfaction.

Competitive Environment. The search for external asset managers will be conducted in an open and competitive environment to ensure that qualified providers are identified, the process is fair and objective, and that pricing is reasonable. In instances where multiple providers exist, a meaningful sample of qualified firms must be considered and evaluated in relationship to each other. If a situation arises in which an investment approach is unique to a specific firm, a full description of the unique characteristics of the firm and the reasons why a competitive alternative does not exist must be fully documented.

Manager Selection Criteria. The Investment Staff and Consultant Staff will jointly develop the manager selection criteria used to screen the universe of potential service providers. In order to identify the most qualified service providers, manager screens will be tailored to each specific assignment within the E-MAP portfolio. The Investment Staff and Consultant Staff will independently apply the screening criteria to the manager universe to ensure fairness and consistency.

Requests for Proposals. Requests for Proposals (RFP's) developed by the Staff and Consultant Staff will be sent to qualified service providers. A copy of the RFP questionnaire will be included in the documentation materials presented to the Board. The Staff and Consultant Staff will independently assess and rank the RFP respondents based on a set of established criteria.

Due Diligence. The investment management firms receiving the highest rankings by the Staff and Consultant Staff will be subjected to an intensive due diligence effort. The Staff and Consultant Staff participate jointly in this process. Both parties conduct a number of quantitative and qualitative analyses and meet on-site with each manager under consideration to be hired.

Manager Selection and Search Process Documentation. The manager receiving the highest collective ranking from the search team is selected to fill the designated assignment within the E-MAP portfolio. The Executive Director and Board review all manager selections prior to the execution of an official contract with the chosen external service provider. The Investment Staff and Consultant Staff are responsible for the preparation of all search process documentation.

VI. Implementation

A. Guidelines for Investment Strategy Allocations

In total, the allocation to the following investment strategies shall not exceed 60.0 percent of the net market value of the assets allocated to E-MAP:

- Long/short active domestic equity management,
- Market neutral/near market neutral active domestic equity management, and
- U.S. equitized multi-asset directional and non-directional strategies.

Additionally, the total allocation to U.S. equitized multi-asset directional and non-directional strategies shall not exceed 25.0 percent of the net market value of the E-MAP assets. Exposure to the approved investment strategy types will be achieved through the indentification, selection and on-going management of SEC-registered investment advisors qualified to serve as fiduciaries of the Systems. Investment advisors not registered with the Securities & Exchange Commission (SEC) will be excluded from the E-MAP Program.

B. Guidelines for Manager Allocations

The Investment Staff, with the advice of the Consultant Staff, determines the size of the allocations to each manager within the E-MAP Program. Allocations to the E-MAP managers may be altered over time or allowed to deviate from initial targets as a means to control risk and add incremental excess returns. The manager allocation strategies employed within E-MAP may from time to time result in modest ‘style tilts’ relative to the Russell 3000 Index. Incorporation of this strategy is expected to improve the risk/return profile of E-MAP without materially impacting the broader Domestic Equity structure.

Monitoring the allocations to each manager and, when necessary, making strategic changes to those allocations to take advantage of market and investment management opportunities are important components of Staff’s responsibilities in managing E-MAP. Staff shall adhere to the following guidelines when determining the dollar allocations to the E-MAP managers:

- Changes to the manager allocations shall be based on longer-term expectations and should not be guided by short-term fluctuations in the capital markets,

- A prudent level of style and process diversification shall be maintained at all times,
- No fewer than three, and no more than twelve, external asset managers shall be utilized,
- No external asset manager shall invest more than 40 percent of E-MAP's total assets based on market values, and
- Any changes in the allocations to managers should be completed in a cost efficient manner, utilizing 'natural'cash flows to the extent possible.

In addition, Staff shall manage the allocations within E-MAP so that the aggregate investment style and market capitalization of the portfolios falls within the ranges shown below:

	Minimum Allocation	**Style Neutral Target**	**Maximum Allocation**
% Large/Mid	75	90	100
% Small	0	10	25
% Value	35	50	65
% Growth	35	50	65

Note: Investment style and market capitalization exposure will be measured using the Frank Russell Style Indices.

It is possible, at times, that a manager may be under contract with the Systems but will not manage any assets. Such a situation would be based on the Systems' manager allocation strategies. The initial allocations and all reallocations are based on a careful assessment of the relative risk and return potential for each manager. The Investment Staff is responsible for documenting the rationale for actions taken in accordance with this policy.

C. Asset Class Rebalancing

E-MAP will be treated as one portfolio for purposes of implementing PSRS/NTRS's broad asset class rebalancing policies. As such, when the asset class rebalancing trigger points are breached, the E-MAP portfolio will typically be rebalanced back to the target weight within the overall manager structure.

D. External Asset Manager Fees

The Investment Staff and Consultant Staff are responsible for securing the services of qualified service providers at fee levels that are reasonable and competitive. The Staff and Consultant Staff will work diligently to assure the most favorable fee arrangements for the Systems. In accordance with that policy, Staff and Consultant Staff will consider a number of different fee structures. Both asset-based and performance-based fee alternatives will be considered. All performance-based fee structures, however, will be carefully compared and contrasted to traditional asset-based fee options.

E. Manager Guidelines

Individual Investment Guidelines will be established for each external asset manager. These guidelines will be specific as to the particular role of that manager's portfolio in the overall E-MAP structure, and will address the following topics:

- Permissible investments,
- Style adherence,
- Diversification,
- Portfolio quality,
- Performance objectives, and
- Other manager-specific issues.

Compliance with the Systems' Investment Guidelines is mandatory. No deviation will be permitted without express written permission, in advance, from the Investment Staff.

F. Use of Sub-Custodians (Prime Brokers)

Sub-custodial accounts may be utilized for the operation of the following investment strategies:

- Long/short active domestic equity management,
- Market neutral/near market neutral active domestic equity management, and
- U.S. equitized multi-asset directional and non-directional strategies.

Assets contained in sub-custodial accounts are no longer custodied by the Master Custodian but all portfolio information is regularly transmitted to the Master Custodian and included in custodial reports.

G. Ongoing Manager Evaluation

The Investment Staff is responsible for the monitoring and evaluation of the external asset managers employed by the Systems as part of the E-MAP Program. In fulfilling this role, Staff meets annually with each manager to formally review performance and investment activity. E-MAP managers will from time to time participate in the Systems' annual Investment Symposium held in June of each year.

In addition to these formal review mechanisms, the Investment Staff engages in a number of activities designed to oversee the external management of E-MAP assets. Staff carefully monitors the managers to ensure compliance with the Systems' investment policies and procedures and to make sure each firm is adhering to the specific Investment Guidelines established for each mandate. As part of the managers' responsibility, they are required to complete a quarterly analysis of their investment activities in a Standard Reporting Format developed by Staff. The Staff combines the information received from the managers with its own internally generated analyses and data from the Custodian to complete the review process of the E-MAP managers.

Appendix IX

Private Equity Implementation Manual
The Public School
and
The Non-Teacher School Employee Retirement Systems of Missouri

I. Introduction
On January 15, 2002 the Board of Trustees of The Public School and The Non-Teacher School Employee Retirement Systems of Missouri (hereinafter collectively referred to as 'PSRS/NTRS' or 'Systems') approved a 3.0 percent target allocation to Private Equity.[15] On January 12, 2004, the Board reaffirmed the 3.0 percent Private Equity target allocation. Private Equity is viewed as a separate asset class for inclusion in the Systems' overall investment portfolios.[16] Investments in Private Equity differ substantially from the Systems' public markets asset classes (domestic and non-U.S. equity, along with fixed income) in part because they are typically very long-term in nature, not publicly traded, relatively illiquid and offer the potential for substantially higher returns (along with a commensurate level of risk). The three broad Private Equity sub-asset classes are buyouts, venture capital and debt-related financial instruments.[17] Exposure to the Private Equity sub-asset classes will be achieved by making investments with Private Equity Partnerships identified, selected and monitored through one or more of the following investment structures: fully-discretionary limited partnership fund-of-funds (separate account basis), fully-discretionary separate accounts and/or non-discretionary separate accounts. Private equity advisory firms and private equity fund-of-funds managers represent the primary types of external service providers that offer investment structures falling under these categories to large institutional investors such as PSRS/NTRS.[18] A strategy of over-commitment to the asset class will be followed initially in order to reach the 3.0 percent target allocation over a period of approximately five-to-seven years. The parties responsible for the Systems' Private Equity allocation – that is, the Board, Executive Director, Investment Staff and External Private Equity Advisor[19] - recognize the need to establish, maintain and follow a tailored strategy in order to address the complexity of the asset class and to manage its unique risk/return and liquidity characteristics. On April 9, 2002 the Board adopted the policies and procedures for

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[15] *Private Equity refers to investments in domestic and international pooled private equity partnerships, including funds with the following types of investment focus: acquisition, venture capital, subordinated debt, equity expansion capital, restructuring/recovery and others investing in the private equity asset class.*

[16] *The Systems created a separate composite for assets invested in or earmarked for private equity that has a target allocation of 3.0 percent of Total Fund assets. The portion of that composite that is not yet invested in Private Equity is invested passively in U.S. Equity index funds.*

[17] *A full definition of each sub-asset class is contained in Section III - Private Markets Categories. The target allocations and ranges are shown in Section V - Guidelines for Sub-Asset Class Allocations.*

[18] *The use of Specialized Investment Advisors is also covered in Section III.*

[19] *Pathway Capital Management is the Systems' current External Private Equity Advisor.*

Private Equity set forth in this Implementation Manual. The Private Equity Implementation Manual was revised on October 25, 2004.

II. Statement of Purpose of Implementation Manual

The Implementation Manual provides formal documentation of the investment policies and procedures for the Private Equity allocation and is incorporated into the Systems' Investment Policy as Appendix IX. The document serves as a reference point for the management of all Private Equity assets by providing a clear definition of the strategy's philosophies, objectives, and general practices and also gives guidance to those responsible for overseeing and administering the program. The Implementation Manual is intended to serve in tandem with the Investment Policy. Certain sections of this document, however, specify investment practices that are unique to Private Equity and, as a result, deviate from language contained in the body of the Investment Policy. The development and maintenance of the Implementation Manual is the responsibility of the Investment Staff. Any revisions to the policies and procedures set forth herein must be approved by the Board of Trustees. The Implementation Manual may be revised at any time and will be formally reviewed at least annually.

III. Investment Philosophy

The Systems' allocation to Private Equity shall be treated as a separate and distinct asset class within the Total Fund structures of PSRS and NTRS with a customized set of objectives, strategies and guidelines. The Private Equity allocation is intended to enhance long-term Total Fund returns and provide diversification without substantially changing the overall objectives and risk profile of the Systems' portfolios. For risk management and for other purposes, the characteristics and risks associated with Private Equity will be viewed both in isolation and within the context of the entire Fund.

A. Performance Objectives

Based on the Systems' general beliefs and expectations regarding the level of returns that can be generated from a carefully developed and implemented Private Equity program, the performance objective for the Private Equity allocation is to achieve a net-of-fees return that is 300-500 basis points above the return of the Russell 3000 Index over rolling ten-year periods.[20] Additionally, where information is available for the total portfolio and the sub-asset classes, PSRS/NTRS will measure returns against median and top quartile performance for the appropriate vintage year, as provided by a third party source, such as Venture Economics. These comparisons will serve as a secondary measure of the success of the Private Equity allocation by measuring the ability of the strategy's investments with general partners to add value within the asset class.

B. Private Markets Categories

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[20] *Net-of-fees comparisons will take into account all costs associated with the Private Markets program, including partnership fees, fund-of-funds manager fees, incremental custodial costs, and incremental Staff and Consultant expenses.*

The Private Equity asset class is comprised of investment opportunities not typically included within the public equity and fixed income markets. Private Equity investments provide financing for start-up companies, private middle market companies, firms in financial distress and public and non-public firms seeking buyout financing. Private Equity investments can be classified into three basic sub-asset class categories:

- Venture Capital
- Buyouts
- Debt-Related

Investments in the sub-asset classes can be made in the U.S. or outside this country. PSRS/NTRS elected not to categorize international investments as a Private Equity category with its own specific target allocation. Instead, Private Equity investments made outside the U.S. will typically represent active decisions made by external advisors and/or partnerships that will be monitored closely by Staff and the External Private Equity Advisor and will not exceed 20 percent of the Private Equity allocation. The three sub-asset class categories provide for the grouping of diverse Private Equity investment opportunities and are described in more detail below.

- Venture Capital – Provides start-up or expansion capital to young or rapidly growing companies with the expectation of achieving high rates of return. Includes seed stage, early stage, later stage and expansion stage investments. Returns from venture capital investments typically occur in years 5-12.
- Buyouts – Involves the purchase of a control position (majority or minority) in an established company using both debt and equity in order to takeover its assets and operations. Buyout strategies include growth financing, restructuring and re-capitalizations. Returns typically occur in years 4-10.
- Debt-Related – Combines a debt instrument, which provides current yield, with an equity participation (usually warrants) referred to as an 'equity kicker.' Primary strategies are distressed debt, bankruptcy restructurings and mezzanine debt. Returns are generally realized in years 3-6.

C. Risks of Investing in Private Markets

Along with the potential for higher returns, Private Equity entails a greater level and number of unique risks when compared to public equities and fixed income. As a matter of prudent policy, the Systems, in conjunction with its External Private Equity Advisor, will strive to identify and understand the risks associated with each Private Equity Partnership investment before any assets are committed. Some of the primary risk characteristics of the Private Equity asset class that differentiate it from the risks associated with publicly traded investments are as follows:

- Return volatility is higher. The volatility of returns from Private Equity is high since investments are relatively concentrated, because funds are often allocated to emerging and unproven companies, and due to the general nature of the asset class. It takes 3-12 years before a typical investment is 'cashed out.' In the interim, the value of the investment tends to follow a J-curve pattern, meaning that in the first several years the value of the investment may be less than the sum of committed capital. This is due to the fact that many successful investments are valued conservatively at cost, while write-downs of unsuccessful ventures and management fees reduce the overall market value. Gains are realized in later years as investments are harvested. The 'J-curve' is managed through prudent policies, along with diversification across both investment types and vintage year.

- Investments are relatively illiquid. The illiquid nature of Private Equity can result from the form of the asset or security itself, or it can be a function of the investment structure being utilized (e.g., a limited partnership). Notwithstanding that illiquidity is generally a fundamental characteristic of the asset class and a partial source of the expected return premium, the Systems will ensure that investments provide the maximum liquidity practical through sound policies and a clear understanding of each investment vehicle and its exit strategy.
- Private Markets are inefficient. Since Private Markets are less efficient than public markets and because reliable information is difficult to obtain, professional expertise and a substantial time commitment is necessary to identify and manage the unique and complex risk characteristics of the Private Equity asset class. Due to its inefficient nature, the return dispersion between good and bad Private Equity investments is substantially greater than the dispersion between the returns of publicly traded securities and, as a result, professional expertise and resources are more likely to give an investor an advantage. PSRS/NTRS recognizes that long-term strategic relationships with qualified service providers and a well-crafted, continually monitored Private Equity investment strategy is critical to long-term success.
- Very little public information is available. Due to the fact that Private Equity securities are not publicly traded, there is no readily available, unbiased pricing source for these investments. Thus, interim period valuations are difficult to ascertain, and are, to a great degree, subjective in nature. Consequently, pricing and performance measurement prior to realization of returns are less reliable than in the traditional publicly traded asset classes. The Systems will continually work to establish the processes and procedures necessary to reasonably monitor performance on a quarterly basis, and to assess valuations of assets held in the Private Equity portfolio.

D. Risk Management

Clearly defined policies and procedures for making and monitoring Private Equity investments is an important component of risk management. Within the scope of appropriate, well-defined policies, diversification and a rigorous Private Equity Partnership selection process are the primary risk management tools . The Systems will maintain a prudent level of diversification through the establishment and adherence to appropriate sub-asset class targets and ranges. In addition, diversification will be across vintage years, investment strategies, industries and external service providers. In order to reduce Private Equity Partnership risk and external manager/advisor risk, PSRS/NTRS will adhere to a rule that its will not exceed 25.0 percent of a Partnership's or manager/advisor's assets within a given fund or product offering. Developing and following a careful strategy with regard to the timing and diversification of asset commitments and placements will assist in managing overall risk and, specifically, the 'J-curve' effect. International investments will be limited to 20.0 percent of total Private Equity commitments.

E. Use of Specialized External Advisors and Investment Structures

Recognizing that Private Equity strategies generally require focused knowledge, expertise, deal flow, industry contacts, and the ability to negotiate favorable terms, the Systems will employ specialized advisors to assist in the development and implementation of a Private Equity program.

Due to the unique characteristics of the Private Equity asset class, a number of investment structures may be utilized. Exposure to the Private Equity sub-asset classes will be achieved by making investments with Private Equity Partnerships identified, selected and monitored through one or more of the following investment structures: fully-discretionary limited partnership fund-of-funds (separate account basis), fully discretionary separate accounts and/or non-discretionary separate accounts. By allowing a wide variety of investment structures, PSRS/NTRS will be appropriately positioned to take advantage of market opportunities.

Additionally, specialized firms may be employed for distribution management services and external legal counsel will be utilized as needed. It is expected that specialized investment advisors employed by the Systems will work closely with the Investment Staff in order to develop a clear understanding of all investments placed and to assist Staff in developing a greater level of expertise with regard to the asset class.

F. Delegation of Investment Partnership Hiring and Termination Decisions

The Board of Trustees has delegated to the Investment Staff and External Private Equity Advisor all Private Equity Partnership hiring and termination decisions within the non-discretionary separate account portion of the PSRS/NTRS Private Equity allocation. The current dollar allocation to the non-discretionary separate account managed jointly by the External Private Equity Advisor and Investment Staff is $400 million for PSRS and NTRS combined.

The Executive Director, Chief Investment Officer and External Private Equity Advisor must unanimously agree upon all Private Equity Partnership hiring and termination decisions in writing before the execution of an official contract. The Investment Staff will inform the Board in writing within one month after the execution or termination of a contract with a Private Equity Partnership.

Within the non-discretionary separate account portion of the Private Equity allocation, investments issued by any single Private Equity Partnership shall not exceed $70 million on an aggregate cost basis. Additionally, in order to reduce Private Equity Partnership risk, PSRS/NTRS will adhere to a rule that it will not own more than 25.0 percent of the outstanding equity interests of any single investment opportunity. The specific details regarding the Systems' Private Equity Partnership hiring and termination policy for the Private Equity Program are described in section V, part B.

G. Total Fund Target Allocation

A target allocation of 3.0 percent has been established for Private Equity. However, it can take several years from the time a commitment to invest in a private equity vehicle is first made to the time the assets are actually placed. Additionally, distributions from existing investments often occur before all assets are fully invested. As such, a comprehensive commitment strategy is necessary to ensure the target allocation is reached within a reasonable time period. As part of its implementation strategy, the Systems will over-commit to the asset class initially in order to attain the 3.0 percent target in a prudent time frame (approximately five-to-seven years). The Investment Staff and External Private Equity Advisor will monitor the actual and committed exposure to the asset class closely. The uncommitted and unplaced assets will maintain public equity exposure until appropriate Private Markets investment vehicles are identified and committed capital is placed.

IV. Roles and Responsibilities

This section of the Implementation Manual specifically addresses the roles and responsibilities of the Board of Trustees, Executive Director, Investment Staff and External Private Equity Advisor as they pertain to the Private Equity allocation. The Systems' Investment Policy describes the roles and responsibilities of the parties as they relate to other components of the PSRS/NTRS investment program.

Board of Trustees

The Board of Trustees has general oversight responsibilities for the Private Equity allocation to ensure the prudent utilization of the Systems' assets. The Board approves the policies and procedures for the Private Equity allocation contained in this Implementation Manual. Additionally, the Board is responsible for the selection of the External Private Equity Advisor and for the selection of any additional External Private Equity Advisors that may occur in the future based on analysis and recommendations by the Investment Staff.

The Board relies on the analysis and recommendations of the Staff and the External Private Equity Advisor prior to taking investment action pertaining to the asset class. The Investment Staff and External Private Equity Advisor provide information to the Board both prior to and during its regular meetings.

In fulfilling its oversight and decision-making responsibilities, the Board will rely upon the following:

- Annual Private Equity Investment Policy review, including sub-asset class targets and ranges,
- Annual reporting by the External Private Equity Advisor and Staff,

- Documentation materials prepared by the Investment Staff recommending the hiring or termination of an External Private Equity Advisor(s),
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- Materials prepared by the Investment Staff and/or External Private Equity Advisor reviewing the hiring or termination of Private Equity Partnerships,
- Quarterly performance reporting for the Private Equity composite, and
- Inclusion of Private Equity in the Systems' 'Adopt-A-Manager' program.

Executive Director

The Executive Director adds another layer of oversight and evaluation to the Private Equity allocation by ensuring that assets allocated to the program are invested in accordance with the Systems' policies and procedures. The Executive Director must agree in writing to all hiring and termination decisions regarding Private Equity Partnerships made by the Investment Staff and External Private Equity Advisor in the non-discretionary separate account portfolio prior to the execution or cancellation of a contract. The Executive Director relies heavily on the Investment Staff and the External Private Equity Advisor in fulfilling these responsibilities.

Investment Staff

The Investment Staff is responsible for administering all facets of the Private Equity Program. Staff's responsibilities for Private Equity include, but are not limited to, the following:

- Providing internal investment management and consulting support to the Board of Trustees and Executive Director,
- Maintenance of the Private Equity Implementation Manual,
- Conducting searches for External Private Equity Advisors and making hiring and termination recommendations, as necessary,
- Making hiring and termination decisions regarding Private Equity Partnerships, in conjunction with the External Private Equity Advisor, in the non-discretionary separate account portion of the Private Equity Program,
- Program structure and the development and implementation of Private Equity investment strategies,
- Portfolio monitoring and evaluation, and
- Overall evaluation and refinement of the Private Equity program.

External Private Equity Advisor

The External Private Equity Advisor's duty is to work with the Board and Staff to manage and monitor the Private Equity allocation, making recommendations as appropriate. This includes assisting Staff in establishing the appropriate sub-asset allocation targets and ranges. The External Private Equity Advisor will attend regular meetings with the Board, from time-to-time to provide an independent perspective on the goals, structure, and performance of the Private Equity allocation. Performance measurement services will be provided and reported on a quarterly basis. The External

Private Equity Advisor, in addition to managing a fully discretionary separate account fund-of-funds for PSRS/NTRS, will play a strategic role in the identification, selection and monitoring of Private Equity Partnerships in the non-discretionary separate account portion of the Private Equity allocation. The External Private Equity Advisor must approve in writing all Private Equity Partnership hirings and terminations before any contracts are finalized within the non-discretionary portfolio. In addition to observing financial, economic, and political developments that influence Private Equity investments, the External Private Equity Advisor will also monitor changes within the Private Equity industry that may affect the Systems.

V. Implementation

A. Guidelines for Sub-Asset Class Allocations

Target allocations to the various categories of Private Equity will be reviewed at least annually with the Board of Trustees, Staff and External Private Equity Advisor. The Systems have developed the following sub-asset class targets and ranges:

Sub-Asset Classes[21]	Lower Range	Allocation Policy Target	Upper Range
Venture Capital	20.00%	30.00%	40.00%
Buyouts	40.00%	60.00%	60.00%
Debt-Related	0.00%	10.00%	20.00%

The sub-asset class targets represent longer-term investment objectives. Due to the timing of investment decisions, the actual sub-asset class allocations may differ from the targets, within the ranges specified for each category. Additionally, the Systems may from time to time overweight certain sub-asset classes within the Private Equity allocation to improve the strategy's risk/return profile or to take advantage of unique investment opportunities that are time sensitive. Over time, PSRS/NTRS will invest consistently to gain the proper exposure to the sub-asset classes, with an eye towards finding the most attractive investment opportunities with the best possible terms first, and fulfilling the target allocations second. While the Systems will execute a prudent opportunistic approach in order to secure the best investments and terms, market timing will not occur within the asset class.

B. Private Equity Partnership Hiring and Termination Policy

The Board of Trustees has delegated to the Investment Staff and the External Private Equity Advisor all Private Equity Partnership hiring and termination decisions within the non-discretionary separate account portion of the PSRS/NTRS Private Equity allocation.

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21 *The Systems elected not to categorize international as a sub-asset class. Instead, investments made outside the U.S. will be included in one of the appropriate sub-asset class categories shown here. In the aggregate, International exposure will not exceed 20 percent of the total Private Equitys allocation.*

The current dollar allocation to the non-discretionary separate account managed jointly by the External Private Equity Advisor and Investment Staff is $400 million for PSRS and NTRS combined.

In establishing this policy, it is the Systems' intention to assure interested parties that actions taken during the process of implementation and maintenance of the Private Equity Program occur in an environment of appropriate disclosure that is characterized by objective evaluation and proper documentation. The overriding consideration with respect to all decisions is that they are made solely in the best interests of plan participants and beneficiaries.

To assure that all Private Equity Partnership hiring and termination decisions adhere to the Board's intentions, all such actions must be unanimously agreed to by the Executive Director, Chief Investment Officer and External Private Equity Advisor in writing before the execution of an official contract. The Investment Staff will inform the Board in writing within one month after the execution or termination of a contract with a Private Equity Partnership.

Within the non-discretionary separate account portion of the Private Equity allocation, investments issued by any single Private Equity Partnership shall not exceed $70 million on an aggregate cost basis. Additionally, in order to reduce Private Equity Partnership risk, PSRS/NTRS will adhere to a rule that it will not own more than 25.0 percent of the outstanding equity interests of any single investment opportunity.

Documentation of the Decision-Making Process

Documentation materials prepared by the Investment Staff and External Private Equity Advisor regarding action to hire or terminate a Private Equity Partnership will include a full description of the reason for the action, the expected benefits resulting from the action and a review of the decision-making process. The primary focus of the Staff and External Private Equity Advisor when preparing documentation regarding the hiring and/or termination of external service providers wil be on providing the Board with the level of information necessary to satisfy interested parties that decisions were well reasoned, carefully considered and prudent.

Private Equity Partnership Selection Process

The basic process followed by the External Private Equity Advisor, working in conjunction with the Investment Staff, to manage the process of Private Equity Partership selection is outlined below:

- Screen Private Equity Partnership investment opportunities for compatibility with the goals, objectives and guidelines established by PSRS/NTRS,
- Conduct an examination of the investment opportunity, including the general partners' investment experience and track record,

- Complete a review of offering documents and additional materials and conduct interviews as appropriate, and
- Scrutinize key provisions relating to fees and expenses, allocation of profits, losses, distributions, voting rights, general partner withdrawals and exit clauses, and
- Develop an overall assessment of the suitability of the investment opportunity.

Selection Criteria for Private Equity Partnerships

In order to receive consideration for an assignment with the Systems, a Private Equity Partnership must meet certain minimum criteria. In addition to the basic requirements specified here that apply to all potential Private Equity Partnership selection decisions, a Private Equity Partnership must also comply with any additional criteria defined by the Investment Staff and External Private Equity Advisor that have been established for a particular assignment. The minimum criteria for the selection of Private Equity Partnerships are outlined below:

- Demonstrated knowledge of the Private Equity market segment(s) which the Private Equity Partnership is considering for investment,
- Clearly-defined, repeatable investment process,
- Experienced and diverse management team,
- Demonstrated performance record of adding value in the asset class,
- Track record of quality access/deal flow,
- Clear and accurate communication with investors – good references,
- and
- Willingness to accept terms that result in the appropriate alignment of interests.

In addition, a Private Equity Partnership must have a sufficient level of assets under management so that the addition of funds from PSRS/NTRS will not cause the assets of the Systems to exceed 25.0 percent of the Partnerships's total assets in the product offering.

C. Use of External Legal Counsel

The negotiation of legal agreements governing the terms for investors in Private Equity Partnerships can be complex. The Systems will employ external legal counsel as necessary to ensure the prudent development and execution of contracts with external service providers in the Private Equity area. The Investment Staff and Internal Legal Counsel will be responsible for the retention of qualified external legal counsel.

D. Ongoing Private Equity Partnership Monitoring and Evaluation

The External Private Equity Advisor and Investment Staff have responsibity for the ongoing monitoring and evaluation of Private Equity Partnerships employed by the Systems. The Investment Staff will rely heavily upon information and data received from the External Private Equity Advisor in performing these tasks. Examples of duties related to the ongoing monitoring and evaluation of Private Equity Partnerships include, but are not limited to, the following:

- Conduct periodic meetings with the general partners/managers,
- Serve on partnership advisory boards if invited and as deemed appropriate,
- Review of amendments to partnership agreements,
- Measure and evaluated partnership return data and consolidate reports,
- Respond to notices of calls for capital contributions,
- Manage the distributions of public stocks by partnerships, and
- Develop action plans in those situations where PSRS/NTRS or the External Private Equity Advisor become aware that the activities of a partnership are not in conformance with applicable governing documents.

Appendix X

Real Return Pool Implementation Manual

The Public School
and
The Non-Teacher School Employee Retirement Systems of Missouri

I. Introduction

On January 15, 2002 the Board of Trustees of The Public School and The Non-Teacher School Employee Retirement Systems of Missouri (hereinafter collectively referred to as 'PSRS/NTRS' or 'Systems') approved the Real Return Pool as a separate asset class for inclusion in the Systems' investment portfolios. The Real Return Pool Strategy differs from the Systems' other public markets allocations (domestic and non-U.S. equity, along with fixed income) in part due to a greater focus on earning stable, but meaningful, real returns across economic and market cycles.[22] The Board of Trustees initially approved Treasury Inflation-Protected Securities (TIPS) and publicly traded Real Estate Investment Trusts (REITS) for inclusion in the Strategy. Additional sub-asset classes will be considered in the future if their inclusion helps meet the allocation's long-term objectives. Exposure to the Real Return Pool sub-asset classes will be obtained through the use of specialist external asset managers. The target allocation for the Strategy is 5.0 percent of Total Fund assets. The parties responsible for the Systems' Real Return Pool allocation – that is, the Board, Executive Director, Investment Staff and Consultant - recognize the need to establish, maintain and follow a tailored strategy that specifically addresses the unique nature and objectives of the asset class. On April 9, 2002 the Board adopted the policies and procedures for the Real Return Pool set forth in this Implementation Manual.

II. Statement of Purpose of Implementation Manual

The Implementation Manual provides formal documentation of the investment policies and procedures for the Real Return Pool and is incorporated into the Systems' Investment Policy as Appendix X. The document serves as a reference point for the management of all Real Return Pool assets by providing a clear definition of the Strategy's philosophies, objectives, and general practices and also gives guidance to those responsible for overseeing and administering the program. The Implementation Manual is intended to serve in tandem with the Investment Policy. Certain sections of this document, however, specify investment practices that are unique to the Real Return Pool and, as a result, deviate from language contained in the body of the Investment Policy. The development and maintenance of the Implementation Manual is the responsibility of the Investment Staff. Any revisions to the policies and procedures set forth herein must be approved by the Board of Trustees. The Implementation Manual may be revised at any time and will be formally reviewed at least annually.

[22] *The Real Rate of Return is the rate by which the long-term total return exceeds the long-term rate of inflation.*

III. Investment Philosophy

The Real Return Pool will be treated as a separate and distinct asset class within the Total Fund structures of PSRS/NTRS with a customized set of objectives, strategies and guidelines. For purposes of quarterly Board-level performance reporting, the Real Return Pool will be treated as a single portfolio. The specific risks associated with the Strategy will be viewed both in isolation and within the context of the entire Fund structure.

Overall Investment Objectives

The Real Return Pool allocation is intended to enhance the long-term Total Fund risk/return profile and provide diversification without substantially changing the overall objectives of the Systems' investment portfolios. Within a total portfolio context, the Real Return Pool is viewed as a strategic allocation that emphasizes stable, but meaningful, real returns across economic and market cycles. The sub-asset classes included within the Strategy generally have low correlations with the Systems' other assets. The Real Return Pool is designed to perform well during sustained periods of high and/or unanticipated inflation, thereby helping to protect the funded status of the Systems when plan liabilities are rising at a faster than normal pace.

Performance Expectations and Benchmark

Based on the Systems' general beliefs and expectations regarding the level of returns that can be generated from a carefully developed and implemented strategy for investing in real return assets, the performance objective for the Real Return Pool is to achieve a net-of-fees return that is 25-75 basis points above the return of the Lehman Brothers TIPS Index over rolling five-year periods.[23] In order to achieve the performance objective, it is anticipated at times the Real Return Pool will differ significantly from the Lehman TIPS Index in terms of portfolio construction and risk characteristics. While these differences will likely result in short-term return volatility relative to the benchmark (e.g., tracking error), the combination of investment strategies utilized in the Real Return Pool are expected to provide favorable risk-adjusted rates of return over full market cycles.

Real Return Pool Sub-Asset Classes

The Board of Trustees initially approved Treasury Inflation-Protected Securities (TIPS) and publicly traded Real Estate Investment Trusts (REITS) for inclusion in the Real Return Pool. On April 8, 2003, the Board approved Global-Inflation Indexed Securities and the sectors of the Lehman Aggregate Index as additions to the sub-asset classes of the Real Return Pool. Additional sub-asset classes will be considered in the future if their inclusion in the Strategy improves the likelihood of meeting the allocation's long-term objectives. A description of the approved sub-asset classes is shown here:

- TIPS – Fixed income securities guaranteed by the full faith and credit of the U.S. government that pay real principle at maturity and real interest rates over their lifetime. TIPS are indexed to the Consumer Price Index (CPI-U based on

[23] *Net-of-fees comparisons will take into account all costs associated with the Real Return Pool, including manager fees, incremental custodial costs, and incremental Staff and Consultant expenses.*

a three-month lag) with the principal adjusted based on CPI changes, with a minimum of par paid at maturity. The coupon is paid semi-annually on CPI-indexed principal.

- REITS – Publicly traded companies that manage a portfolio of real estate investments in order to produce income and capital appreciation for investors. REITS typically make investments in a diverse array of real estate such as shopping centers, office buildings, apartment complexes, industrial warehouses, nursing homes and hotels. Because REITS must distribute most of their earnings by law, they tend to pay high yields of 5-10 percent or more.

- Global Inflation-Indexed Securities – Fixed income securities guaranteed by the full faith and credit of the foreign government issuing the securities that pay real principle at maturity and real interest rates over their lifetime. Currently, there are five countries that issue Global Inflation-Indexed Securities – Canada, United Kingdom, Sweden, France and Australia.

- Lehman Aggregate Sectors – These sectors are traditionally considered part of the Fixed Income Allocation. They include U.S. Treasury and Agency securities, Mortgage-backed securities, Asset-backed securities, and Corporate securities.

Risk Management

Diversification is the primary risk management tool within the Real Return Pool. The Systems will maintain a prudent level of diversification by establishing and adhering to sub-asset class ranges that are highly correlated with inflation and by ensuring that portfolios are diversified across a number of individual holdings. In order to reduce manager risk, PSRS/NTRS will adhere to a rule that its assets will not exceed 25 percent of a manager's assets within a given product.

Use of Specialist External Advisors

Recognizing that the sub-asset classes included within the Real Return Pool generally require focused knowledge and expertise, the Systems will employ specialist advisors capable of adding value to assist in the implementation and refinement of the Real Return Pool.

Intensive Analysis of Asset Combinations

In developing the Real Return Pool portfolio of assets, the Investment Staff and Consultant will give careful consideration to strategy combinations through quantitative and qualitative risk management techniques. The objective will be to develop a portfolio with optimal risk/return characteristics. The analysis of how individual portfolios perform within a larger composite will be part of both the manager search process and the ongoing evaluation of the Real Return Pool composite.

Asset Allocation Strategies

Allocations to the sub-asset classes within the Real Return Pool may be altered over time as a means to control risk and add incremental excess returns. The Investment Staff and Consultant are responsible for all allocation strategies. Actual allocations must fall within the ranges established in this Policy document that are detailed in Section V – Guidelines for Sub-Asset Class Allocations. All active decisions to reallocate funds within the Real Return Pool will be based on a careful assessment of the expected relative risk and return potential for each sub-asset class.

IV. Roles and Responsibilities

This section of the Implementation Manual specifically addresses the roles and responsibilities of the Board of Trustees, Executive Director, Investment Staff and External Consultant(s) as they pertain to the Real Return Pool. The Systems' Investment Policy describes the roles and responsibilities of the parties as they relate to other components of the PSRS/NTRS investment program.

Board of Trustees

The Board of Trustees has general oversight responsibilities for the Real Return Pool allocation to ensure the prudent utilization of the Systems' assets. The Board relies on the analysis and recommendations of the Staff and Consultant prior to taking investment action pertaining to the asset class. The Investment Staff and Consultant provide information to the Board both prior to and during its regular meetings. The Board approves the policies and procedures for the Real Return Pool contained in this Implementation Manual. In addition, the Board reviews and approves manager selection decisions (and termination decisions) made by the Investment Staff and Consultant, relying upon information and analysis supplied by the parties.

In fulfilling its oversight and decision-making responsibilities, the Board will rely upon the following:

- Annual Real Return Pool Policy review, including sub-asset class ranges,
- Documentation materials prepared by the Investment Staff and Consultant recommending the approval to hire external managers,
- Documentation materials prepared by the Investment Staff and Consultant describing the rationale to terminate an external service provider,
- Quarterly performance reporting by the Consultant for the Real Return Pool composite, and
- Inclusion of the Real Return Pool in the 'Adopt-A-Manager' program.

Executive Director

The Executive Director adds another layer of oversight and evaluation to the Real Return Pool allocation by ensuring that assets allocated to the program are invested in accordance with the Systems' policies and procedures. The Executive Director must agree in writing to all hiring and termination decisions prior to the execution or cancellation of a contract with external service providers. The Executive Director relies heavily on the Investment Staff and the Consultant in fulfilling these responsibilities.

Investment Staff

The Investment Staff is responsible for administering all facets of the Real Return Pool. Staff's responsibilities include, but are not limited to, the following:

- Providing internal investment management and consulting support to the Board of Trustees and Executive Director,
- Maintenance of the Real Return Pool Implementation Manual,
- Conducting manager searches in conjunction with the Consultant,
- Making hiring and termination recommendations regarding external service providers,
- Evaluation and recommendation of new asset classes,
- Program structure and the development and implementation of all Real Return Pool investment strategies,
- Portfolio monitoring and evaluation, and
- Overall evaluation and refinement of the Program.

External Consultant

The Consultant's duty is to work with the Board and Staff to manage and monitor the Real Return Pool allocation, making recommendations to the Board as appropriate. This includes assisting Staff in establishing the appropriate sub-asset allocation targets and ranges. The Consultant will attend regular meetings with the Board to provide an independent perspective on the Real Return Pool's goals, structure, and performance. Performance measurement services will be provided and reported to the Board on a quarterly basis. The Consultant will assist with external service provider selection. In addition to observing financial, economic, and political developments that could potentially influence the Real Return Pool allocation, the Consultant will also monitor changes within the money management industry that may affect the portfolios.

V. Implementation

Guidelines for Sub-Asset Class Allocations

The Investment Staff and the Consultant determine the size of the allocations within the Real Return Pool, subject to the sub-asset class ranges established in this Policy document. Allocations may be altered over time or allowed to deviate from initial targets as a means to control risk and add incremental excess returns. Incorporation of this strategy is expected to improve the risk/return profile of the Real Return Pool without negatively impacting the Total Fund portfolios. The Real Return Pool sub-asset class allocations and ranges will be reviewed at least annually with the Board of Trustees, Staff and Consultant.

Monitoring the allocations and, when necessary, making strategic changes to those allocations to take advantage of market and investment management opportunities are important responsibilities for Staff and Consultant in managing the Real

Return Pool. The parties shall adhere to the following guidelines when determining the sub-asset class allocations:

- Changes to the allocations shall be based on longer-term expectations and should not be guided by short-term fluctuations in the capital markets, and
- Any changes in the allocations should be completed in a cost efficient manner, utilizing 'natural' cash flows to the extent possible.

The ranges sub-asset class ranges are shown below:

Sub-Asset Classes	Lower Range	Benchmark Neutral Allocation	Upper Range
TIPS	50.00%	100.00%	100.00%
REITS	0.00%	0.00%	50.00%
Global I/I Bonds	0.00%	0.00%	20.00%
Lehman Aggregate	0.00%	0.00%	50.00%

It is possible, at times, that a manager may be under contract with the Systems but will not manage any assets. Such a situation would be based on the Systems' manager allocation strategies. The Investment Staff and Consultant are responsible for documenting the rationale for actions taken in accordance with this Policy.

Manager Selection Criteria

In order to receive consideration for an assignment within the Real Return Pool a manager must meet certain minimum criteria. In addition to these basic requirements that apply to all assignments, a manager must also comply with any additional search criteria defined by the Staff and Consultant that have been established for a particular assignment. The minimum criteria for external asset managers are described below.

Organizational Qualifications. To be selected as an external service provider, a manager shall meet the following organizational criteria:

- Qualified to serve as a fiduciary to the Systems,
- Registered with the SEC (if applicable),
- Free of conflicts of interest, and
- Have a proven record of professionalism and ethical behavior.

In addition, a manager must have a level of assets under management so that the addition of funds from PSRS/NTRS will not cause the assets of the Systems to exceed 25 percent of the manager's total assets in the product.

Investment Style and Process. The investment style and process employed by a manager must be compatible with the Systems' investment objectives and policies. The manager should also have a proven record of adherence to an established investment philosophy over time.

Personnel. A manager must have an experienced professional staff with adequate support personnel to meet the necessary reporting requirements. A manager should be able to demonstrate policies designed to attract and retain key personnel.

Performance. The manager and/or its personnel shall have a demonstrated ability to achieve superior performance in the investment approach under consideration.

Appendix XI

Real Estate Implementation Manual

The Public School
and
The Non-Teacher School Employee Retirement Systems of Missouri

I. Introduction

On January 12, 2004 the Board of Trustees of The Public School and The Non-Teacher School Employee Retirement Systems of Missouri (hereinafter collectively referred to as 'PSRS/NTRS' or 'Systems') approved a 5.0 percent target allocation[24] to Real Estate. The allocation to Real Estate investments shall be viewed as a separate asset class for inclusion in the Systems' overall investment portfolios. The process of building the Systems' Real Estate program and fully funding the target allocation is expected to occur over a period of approximately three to four years. Additional new investments in Real Estate will be necessary beyond the initial start-up period in order to maintain the 5.0 percent target allocation. The allocation to Real Estate from a total fund perspective is designed to provide exposure to a diversified portfolio of institutional quality investments that will provide meaningful, consistent returns, act as a hedge against inflation, preserve capital and act as a diversifier to the overall PSRS/NTRS investment portfolio. In order to achieve these objectives, the portfolio will be constructed utilizing a combination of core (both private and public), enhanced and high return real estate[25]. The parties responsible for the Systems' Real Estate allocation – that is, the Board, Executive Director, Investment Staff and Real Estate Consultant – recognize the need to establish, maintain and follow a tailored strategy in order to address the complexity of the asset class and to manage its unique risk/return and liquidity characteristics. On September 13, 2004 the Board adopted the policies and procedures for Real Estate set forth in this Implementation Manual.

II. Statement of Purpose of Implementation Manual

The Implementation Manual provides formal documentation of the investment policies and procedures for the Real Estate allocation and is incorporated into the Systems' Investment Policy as Appendix XI. The document serves as a reference point for the management of all Real Estate assets by providing a clear definition of the strategies philosophies, objectives, and general practices and also gives guidance to those responsible for overseeing and administering the program. The Implementation Manual is intended to serve in conjunction with the Investment Policy. Certain sections of this document, however, specify investment practices that are unique to Real Estate and, as a result, deviate from language contained in

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[24] *The Board has adopted a 5% allocation to real estate. In the interim (prior to funding) 2.5% of the allocation is directed to fixed income and 2.5% to real return.*
[25] *A full definition of each sub-asset class is contained in Section III – Real Estate Categories. The target allocations and ranges are shown in Section V – Guidelines for Sub-Asset Class Allocations.*

the body of the Investment Policy. The development and maintenance of the Implementation Manual is the responsibility of the Investment Staff. Any revisions to the policies and procedures setforth herein must be approved by the Board of Trustees. The Implementation Manual may be revised at any time and will be formally reviewed at least annually.

III. Investment Philosophy

The Systems' allocation to Real Estate shall be treated as a separate and distinct asset class within the Total Fund structure with a customized set of objectives, strategies and guidelines. The Real Estate allocation is intended to add diversification to the entire PSRS/NTRS portfolio. The specific objectives of the real estate allocation will be to optimize yield and return, preserve capital and enhance portfolio value across market cycles. The risks associated with Real Estate will be viewed both in isolation and within the context of the entire fund.

A. Real Estate Categories

The Real Estate program will be comprised of two components – core and non-core property types.

Core property type – Core investments include existing, substantially leased income-producing properties located principally in metropolitan areas that exhibit reasonable economic diversification. Core properties have the following characteristics:

- Predictable income flows with a high proportion of anticipated total return arising from current income and cash flow;
- At least 80 percent leased upon purchase of the asset;
- Located in a economically diversified metropolitan area;
- Credit quality tenants and a staggered lease maturity schedule;
- Quality construction and design features;
- Reasonable assurance of a broad pool of potential purchasers upon disposition;
- Properties requiring quality asset and portfolio management but not requiring specialized operating expertise; and,
- Investment structures using all cash or limited leverage. Leverage is typically under 30 percent for core properties.

Real Estate Investment Trusts (REITs) are also considered part of the core component. REITs are publicly traded companies that tend to invest in the major property types – office, industrial, apartments and retail. Additionally, REITs tend to own well-leased/stabilized portfolios of properties. REITs manage a portfolio of real estate investments in order to produce income and capital appreciation for investors. Because REITs must distribute most of their earnings by law, they tend to offer dividend yields of 5 to 7 percent or more.

<u>Non-Core property types</u> – Non-core investments represent those properties and/or investment strategies that require specialized acquisition and management expertise or skill to mitigate the business and leasing risk that may be associated with individual investments. Non-core investments have greater associated volatility compared to core investments. Non-core investments typically exhibit one or more of the following characteristics:

- Properties located in secondary and tertiary markets, which are not economically diversified and may have accompanying susceptibility to imbalances of demand and supply;
- Property types including hotels, motels, senior housing, and residential housing which require specialized management skills focusing primarily on operating business expertise rather than pure real estate management expertise;
- Properties which are considered to be in "work out" mode;
- Properties involving significant appreciation, lease-up, development and/or re-development risks;
- Financing or investment structures that impact cash flows and/or require additional administrative expertise; and,
- Investment structures using leverage up to 70 percent on the total portfolio.

Non-Core properties can further be broken down into two categories: enhanced and high return. Enhanced real estate is characterized as traditional properties that take on moderate additional risk from one or more of the following sources – leasing, redevelopment, repositioning, the use of moderate leverage (under 50 percent) and specialized property types such as hotels. High return real estate takes on additional risk from an enhanced real estate strategy in order to achieve a higher level of return. High return investments include direct real estate assets such as development or major redevelopment of office, retail, industrial, multifamily or specialized property types. Additionally, high return investments could include land investing, operating company investing, distressed debt/properties, international exposure, highly leveraged properties (usually 75 percent or more) and other specialized investments.

B. Investment Structures

The Systems will primarily utilize open-ended commingled funds for core private real estate exposure. Open-ended commingled funds provide more immediate access to a diversified portfolio of properties and greater liquidity than separate account investing. Other forms of core private real estate investment may be utilized if market conditions warrant, including closed-end commingled funds, separate accounts and joint ventures. The public real estate portion of the core allocation (i.e., REITs) will typically utilize the separate account format.

Due to the unique characteristics of the non-core portion of the real estate market, a wide variety of investment structures will be utilized. Approved structures include open- and closed-end commingled funds, separate accounts, joint ventures, partnerships or portfolio acquisitions. By allowing a wide variety of potential structures, PSRS/NTRS will be appropriately positioned to take advantage of market inefficiencies and opportunities.

C. <u>Risk Management</u>

Clearly defined process and procedures is the primary risk management tool within the Real Estate asset class. Additionally, the Systems shall maintain a prudent level of diversification by establishing and adhering to sub-asset class targets and ranges for core private and public real estate, along with enhanced and high return non-core real estate. In addition, the Systems shall prudently diversify the Real Estate portfolio by investment strategy, investment structure, property type, property life cycle, degree of leverage and geographic and economic region in order to avoid undue concentration in any category. In addition, consideration will be given to minimizing the potential impact of cyclical changes in the economy, financial and/or real estate markets.

In order to reduce external asset manager risk, PSRS/NTRS will adhere to a rule that it will not exceed 25 percent of a manager's assets within a given product type. Furthermore, developing and following a careful strategy with regard to the timing and diversification of asset commitments and placements will result in the prudent management of the overall Real Estate portfolio.

Additionally, the following specific risk management policies will be monitored:

- International investments, which are considered non-core investments, will be limited to 20 percent of the Systems real estate allocation on a fully funded basis.
- No individual property shall constitute more than 5 percent of the real estate allocation.
- No single firm shall manage more than 25 percent of the real estate allocation.

D. <u>Leverage</u>

The Systems acknowledge that leverage, when prudently applied and with consideration of the risk/reward tradeoff associated with its use, has the potential to enhance value within the Real Estate portfolio. Accordingly, the Systems explicitly allow for the utilization of leverage within the Real Estate portfolio. While the use of leverage can increase the volatility of real estate returns, as compared to unleveraged real estate, utilizing leverage is expected to enhance returns, primarily through lowering the overall cost of capital for the investment vehicles. As a risk management procedure, overall leverage on the total private real estate portfolio will not exceed 50 percent. Decisions related to the use of leverage will typically be made at the investment manager level.

No portfolio leverage will be allowed for public real estate securities. However, external investment managers employed by PSRS/NTRS may invest in public real estate securities where the company has debt on its balance sheet. It is preferred that the investment manager(s) responsible for investing in public real estate securities not purchase securities where the leverage exceeds a 60 percent loan to asset value ratio.

E. <u>Performance Objective</u>

The Real Estate allocation will seek to outperform a stylized benchmark comprised of a portfolio weighted combination of the NCREIF Property Index (NPI) and the NAREIT Equity Index net of fees over a rolling five-year period. The combination of the two indices will reflect the allocation to both public and private real estate.

The NPI measures the before-fee unleveraged return of investment-grade, non-agricultural, income-properties located in the United States. The NPI is not an investable benchmark, as it is the aggregation of individual properties acquired and managed by real estate investment managers providing fiduciary services.

The NAREIT Index is the broadest measure of equity REIT performance capturing performance of both large and small cap REIT stocks. The NAREIT Index is an investable benchmark tracking all REIT stocks on the New York Stock Exchange.

IV. Implementation

A. <u>Guidelines for Sub-Asset Class Allocations</u>

Target allocations to the various categories of Real Estate will be reviewed at least annually with the Board of Trustees, Staff and Real Estate Consultant. The Systems have developed the following sub-asset class targets and ranges:

	Broad Target Allocation	Sub Target Allocation	Range
Core Real Estate	60.0%		
Core Private		40.0%	40%-85%
Core REITs		20.0%	15%-25%
Non-Core Real Estate	40.0%		
Enhanced		20.0%	0%-40%
High Return		20.0%	0%-40%
TOTAL	100.0%	100.0%	

The sub-asset class targets represent longer-term investment objectives. Due to the timing of investment decisions (specifically during implementation), the actual sub-asset class allocations may differ substantially from the targets, within the range specified for each category. Additionally, the Systems may from time to time overweight certain sub-asset classes within the Real Estate allocation to improve the strategy's risk/return profile or to take advantage of unique investment opportunities that are time sensitive.

B. <u>Guidelines for Manager Allocations</u>

Monitoring the allocations to each manager and, when necessary, making strategic changes to those allocations to take advantage of market and investment management opportunities are important components of Staff's responsibilities in managing the Real Estate allocation. It is possible, at times, that a manager may be under contract with the Systems but will not manage any assets. Such a situation would be based on the Systems' manager allocation strategies. The initial allocations and all reallocations are based on a careful assessment of the relative risk and return potential for each manager. The Investment Staff is responsible for documenting the rationale for actions taken in accordance with this policy.

C. <u>Intensive Analysis of Manager Combinations</u>

Individual real estate strategies can appear risky when viewed in isolation. When carefully reasoned combinations of diverse investment strategies are viewed in the aggregate, the resulting portfolios can produce a return pattern over time that exhibits very favorable risk/return characteristics. With that goal in mind, the Staff and Real Estate Consultant will give careful consideration to manager combinations through the incorporation of sophisticated risk management techniques. This intensive analysis of the way in which individual portfolios perform within a larger real estate composite will be part of the manager search process and the ongoing evaluation of the Real Estate program.

D. <u>Delegation of Manager Hiring and Termination Decisions</u>

The Board of Trustees has delegated to the Investment Staff and Real Estate Consultant all manager hiring and termination decisions within the non-core real estate allocation for investments that are $50 million or less. The total non-core real estate assets selected by Staff and Real Estate Consultant shall not exceed $400 million in total. The Executive Director, Chief Investment Officer and Lead Real Estate Consultant must unanimously agree upon all manager hiring and termination decisions in writing. The Staff will inform the Board in writing at least one week prior to the execution or termination of a contract with an external service provider. The specific details regarding the Systems' Manager Hiring and Termination Policy for the Real Estate allocation are described in section VI.

E. Use of External Legal Counsel
The negotiation of legal agreements with external service providers providing real estate management services can be complex. The Systems will employ external legal counsel as necessary to ensure the prudent development of executable contracts with providers of real estate management services. The Investment Staff and Internal Legal Counsel will be responsible for the retention of qualified external legal counsel.

V. Roles and Responsibilities

This section of the Implementation Manual specifically addresses the roles and responsibilities of the Board of Trustees, Executive Director, Investment Staff and the External Real Estate Consultant as they pertain to the Real Estate allocation. The Systems' Investment Policy describes the roles and responsibilities of the parties as they relate to the other components of the PSRS/NTRS investment program.

A. Board of Trustees
The Board of Trustees has general oversight responsibilities for the Real Estate allocation to ensure the prudent utilization of the Systems' assets. The Board approves the policies and procedures for the Real Estate allocation contained in this Implementation Manual. Additionally, the Board is responsible for the selection of the Real Estate Consultant, based on analysis and recommendations by Staff. The Board also approves manager selections for all portfolio management assignments greater than $50 million (and approves termination decisions), relying upon information and analysis supplied by the Investment Staff and Real Estate Consultant. For investment management assignments $50 million or less, the Board is responsible for the review of hiring and termination decisions made by the Investment Staff and Real Estate Consultant.

The Board relies on the analysis and recommendations of the Investment Staff and the Real Estate Consultant prior to taking investment action pertaining to the asset class. The Investment Staff and Real Estate Consultant provide information to the Board both prior to and during its regular meetings. In fulfilling its oversight and decision-making responsibilities, the Board will rely upon the following:

- Annual Real Estate Policy review, including sub-asset class ranges,
- Semi-annual reporting by the Real Estate Consultant,
- Documentation materials prepared by the Investment Staff and Real Estate Consultant recommending the approval to hire external managers,
- Documentation materials prepared by the Investment Staff and Real Estate Consultant recommending the termination of an external service provider,
- Materials prepared by the Staff and Real Estate Consultant reviewing decisions to hire or terminate managers for assignments of $50 million or less,
- Quarterly performance reporting for the Real Estate composite.

The Real Estate portfolio participates in the 'Adopt-A-Manager' program through semi-annual meetings with Staff and Real Estate Consultant. The meetings serve as a formal review of the Real Estate program.

B. Executive Director

The Executive Director adds another layer of oversight and evaluation to the Real Estate allocation by ensuring that assets allocated to the program are invested in accordance with the Systems' policies and procedures. The Executive Director must agree in writing to all hiring and termination decisions made by the Investment Staff and Real Estate Consultant for assignments of $50 million or less prior to the execution or cancellation of a contract with external service providers. The Executive Director relies heavily on the Investment Staff and the Real Estate Consultant in fulfilling these responsibilities.

C. Investment Staff

The Investment Staff is responsible for administering all facets of the Real Estate program. Staff's responsibilities include, but are not limited to, the following:

- Providing internal investment management and consulting support to the Board of Trustees and Executive Director,
- Maintenance of the Real Estate Implementation Manual,
- Conducting manager searches in conjunction with the Real Estate Consultant,
- Making hiring and termination recommendations to the Board regarding external service providers,
- Evaluation and recommendation of new investment structures,
- Program structure and the development and implementation of all Real Estate investment strategies,
- Making hiring and termination decisions for assignments of $50 million or less,
- Portfolio monitoring and evaluation, and
- Overall evaluation and refinement of the Program.

As part of the evaluation of existing managers, Staff typically meets at least once per year with each firm to formally review performance and investment activity. Staff carefully monitors the managers to ensure compliance with the Systems' policies and procedures and to make sure each firm is adhering to the investment guidelines established for their mandate.

Staff meets twice each year with the Real Estate Consultant to review the Real Estate portfolio and also participates in the PSRS/NTRS 'Adopt-A-Manager' Program. The Investment Staff works closely with the Lead Real Estate Consultant and members of the Real Estate Consultant's Staff.

D. External Real Estate Consultant

The Real Estate Consultant's duty is to work with the Board and Staff to manage and monitor the Real Estate allocation, making recommendations to the Board as appropriate. This includes assisting Staff in establishing the appropriate sub-asset allocation targets and ranges. The Real Estate Consultant will attend regular meetings with the Board to provide an independent perspective on the Real Estate portfolio goals, structure, and performance. Performance measurement services will be provided and reported to the Board on a quarterly basis. The Real Estate Consultant will assist with external service provider selection. The Lead Real Estate Consultant must approve in writing all manager hiring and terminations for assignments of $50 million or less. In addition to observing financial, economic, and political developments that could potentially influence the allocation, the Real Estate Consultant will also monitor changes within the real estate industry that may affect the portfolios.

VI. Manager Hiring and Termination Policy

The Board has delegated to the Investment Staff and Real Estate Consultant some of the manager hiring and termination decisions within the Real Estate portfolio. In establishing this policy, it is the Systems' intention to assure interested parties that actions taken during the process of implementation and maintenance of the Real Estate program occur in an environment of full disclosure that is characterized by objective evaluation and thorough documentation. The overriding consideration with respect to all decisions is that they are made solely in the best interests of plan participants and beneficiaries.

To assure that all manager hiring and termination decisions adhere to the Board's intentions, all such actions shall be unanimously agreed to by the Executive Director, Chief Investment Officer and Real Estate Consultant. As part of their oversight responsibilities, the Board shall review all manager selections prior to the execution of an official contract with an external service provider. Additionally, the Board will review all manager termination decisions prior to manager notification. It is the responsibility of the Investment Staff and Real Estate Consultant to provide the necessary documentation to the Board of Trustees at least one week prior to investment action.

A. Documentation of the Decision-Making Process

Documentation materials prepared by the Staff and Real Estate Consultant regarding action to hire or terminate a manager(s) will include a full description of the reason for the action, the expected benefits resulting from the action and a full review of the decision-making process. The primary focus of the Staff and Real Estate Consultant when preparing documentation regarding the hiring and/or termination of external asset managers will be on providing the Board with the level of information necessary to satisfy all parties that decisions were well reasoned, carefully considered and prudent.

B. <u>Manager Search Process</u>

Real estate managers, partnerships, or joint ventures qualified to fill assignments within the Real Estate portfolio are identified through a screening process. The Investment Staff and Real Estate Consultant are charged with the responsibility of conducting the necessary searches for qualified service providers. Each step of the process is thoroughly documented in a Selection Book that is provided to the Executive Director and Board of Trustees for their review. The Selection Book is intended to provide documentation that all relevant issues have been disclosed, that the search process was conducted fairly, and that the policies and procedures outlined herein were followed to the Board's satisfaction.

Manager Selection Criteria and Environment. The search for real estate managers/partnerships will be conducted in an open environment to ensure that qualified providers are identified, the process is fair and objective, and that pricing is reasonable. In instances where multiple providers exist, a meaningful sample of qualified firms must be considered and evaluated in relationship to each other. If an investment approach is unique to a specific firm, a full description of the unique characteristics of the firm must be fully documented.

The Investment Staff and Real Estate Consultant will jointly develop the manager selection criteria used to screen the universe of potential service providers.

Due Diligence. The Staff and Real Estate Consultant participate jointly in a due diligence process. Both parties conduct a number of quantitative and qualitative analyses and meet on-site with each manager under consideration to be hired.

C. <u>External Asset Manager Fees</u>

The Investment Staff and Real Estate Consultant are responsible for securing the services of qualified service providers at fee levels that are reasonable and competitive. The Staff and Real Estate Consultant will work diligently to assure the most favorable fee arrangements for the Systems. In accordance with that policy, Staff and Real Estate Consultant will consider a number of different fee structures.

D. <u>Ongoing Manager Evaluation</u>

The Investment Staff is responsible for the monitoring and evaluation of the external asset managers employed by the Systems as part of the Real Estate program. In fulfilling this role, Staff meets at least annually with each manager to formally review performance and investment activity.

Investment Staff engages in a number of activities designed to oversee the external management of the real estate assets. Staff carefully monitors the managers/partnerships to ensure compliance with the Systems' investment policies and procedures and to make sure each firm is adhering to the specific Investment Guidelines established for each mandate. Staff combines the information received from the managers with its own internally generated analyses and data.

Appendix XII

Small-Cap Domestic Equity Implementation Manual
The Public School
and
The Non-Teacher School Employee Retirement Systems of Missouri

IV. Introduction

On September 13, 2004 the Board of Trustees of The Public School and The Non-Teacher School Employee Retirement Systems of Missouri (PSRS and NTRS, respectively, and hereinafter collectively referred to as 'PSRS/NTRS' or 'Systems') approved the Small-Cap Domestic Equity ('Small-Cap' or 'S-CAP') Program as an enhancement to the PSRS and NTRS Domestic Equity portfolios.[26] As part of the policies contained herein, the Small-Cap Program encompasses the entire small-cap component of the Domestic Equity allocations of PSRS and NTRS.[27] The Small-Cap Program is a multi-manager asset pool employing a diverse set of small-cap equity investment strategies that is treated generally as a single portfolio within the overall Domestic Equity structures of PSRS and NTRS. The Small-Cap Program plays an important role within the Systems' overall Domestic Equity portfolios by providing effective and efficient exposure to the small-cap portion of the U.S. stock market through a multi-manager pool. The Investment Staff, with assistance from the External Asset Consultant (Consultant), is charged with administering the S-CAP Program. The Investment Staff and Consultant are jointly responsible for manager hiring and termination decisions, the development and implementation of investment strategies, and manager allocation policies and practices. Exposure to the various segments of the small-cap domestic equity market will be achieved through the identification, selection and on-going management of SEC-registered[28] investment advisors qualified to serve as fiduciaries to the Systems. The allocation to the Small-Cap Program is approximately 9.0 percent of the Domestic Equity allocation (or, 3.33 percent of Total Fund assets). On October 25, 2004 the Board adopted the policies and procedures for the Small-Cap Program set forth in this Implementation Manual.

V. Statement of Purpose of Implementation Manual

The Implementation Manual provides formal documentation of the investment policies and procedures for the Small-Cap Program and is incorporated into the Systems' Investment Policy as Appendix XII. The document serves as a reference point for the management of S-CAP assets by providing a clear definition of the

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[26] *'Small-cap' stocks are those with a smaller market capitalization (or, total market value of equity securities outstanding). It can be problematic to attempt to precisely define small-cap stocks. However, companies with a market capitalization below $1.5 to $2.5 billion are generally considered to be included in the small-cap universe.*
[27] *Excluding the allocations to small-cap domestic equity contained in the PSRS/NTRS Equity-Manager Alpha Pool (E-MAP) Program and the passive allocation to small-cap stocks included in the Systems' Private Equity Composite.*
[28] *Refers to external investment advisors that are registered with the Securities & Exchange Commission.*

Program's philosophies, objectives, and practices and also gives guidance to those responsible for overseeing and administering the Program – that is, the Board, Executive Director, Investment Staff and Consultant.

The Implementation Manual is intended to serve in tandem with the Investment Policy as it relates to the S-CAP Program. Certain sections of this document, however, specify investment practices that are unique to S-CAP and, as a result, deviate significantly from language contained in the body of the Investment Policy. The following segments of this manual provide direction for the management of S-CAP assets that supersede various portions of the Investment Policy document:

III. Investment Philosophy,
IV. Responsibilities,
VI. Manager Hiring and Termination Policy, and
X. Implementation.

The remainder of the Investment Policy is specific to the Small-Cap Program in the following Sections:

VI. Permissible Investments,
IX. Responsibilities of External Investment Managers,
X. Performance Measurement, and
Brokerage Policy (Appendix V).

The development and maintenance of the Implementation Manual is the responsibility of the Investment Staff. Any revisions to the policies and procedures set forth herein must be approved by the Board of Trustees. The Lead Consultant is also expected to sign off on changes to the directives specified in this document. The Implementation Manual may be revised at any time.

VI. Investment Philosophy

S-CAP is a multi-manager small-cap equity asset pool with a distinct and separate set of investment objectives and guidelines that is treated for purposes of strategy formulation, risk management, asset class rebalancing and Board-level performance reporting as a single portfolio within the overall structures of PSRS and NTRS. The S-CAP Program is designed to provide effective and efficient small-cap exposure, diversification, risk control and the opportunity for excess returns without materially changing the overall objectives and risk/return profile of the Systems' Domestic Equity allocation. S-CAP is also expected, over time, to provide an effective vehicle to address the continued growth of PSRS/NTRS's small-cap domestic equity assets.

The Systems will employ a number of specific investment policies and practices that are unique to the S-CAP Program. These policies and practices are described in the paragraphs that follow.

A. Performance Objective

The performance objective for the Small-Cap Program is to exceed the returns of the broad small-cap domestic equity markets while incurring a level of risk that is generally consistent with the policy benchmark. Based on the Systems' general beliefs and expectations regarding the level of excess returns that can be generated in the small-cap area by a carefully reasoned combination of active management styles, the following performance objective has been established for the Small-Cap Program:

S-CAP Performance Objective

The performance goal of the S-CAP portfolio is to achieve a net-of-fees return that is 100-200 basis points above the return of the Russell 2000 Index over a full market cycle.

In order to achieve the performance objective specified above, it is anticipated that at times the S-CAP portfolios of PSRS and NTRS will differ significantly from the Russell 2000 Index in terms of portfolio construction and risk characteristics. While these differences will likely result in short-term return volatility relative to the benchmark (i.e., tracking error), the combination of investment strategies utilized in S-CAP are expected to provide favorable risk-adjusted rates of return over full market cycles.

B. Delegation of Manager Hiring and Termination Decisions

The Board of Trustees has delegated to the Investment Staff and Consultant all manager hiring and termination decisions within S-CAP. The Executive Director, Chief Investment Officer and Lead Consultant must unanimously agree upon all manager hiring and termination decisions in writing. The Board reviews hiring decisions in an open Board meeting prior to the execution of a contract with an external service provider. The Staff will inform the Board in writing within 72 hours of a termination decision. The specific details regarding the Systems' Manager Hiring and Termination Policy for S-CAP are described in section V.

C. Emphasis on 'Alpha Generating' Strategies

The manager structure for S-CAP, along with the search process to identify qualified service providers, will focus on (but not necessarily be limited to) the retention of active investment managers with the ability to generate significant returns in excess of the appropriate benchmark over a full market cycle. These managers will strive to add value through superior stock selection and other active management decisions. The ultimate objective of the manager search process is the identification of a unique set of long-term portfolio construction specialists that have the conviction to implement their 'best' investment ideas.

Typically, investment strategies that place a higher emphasis on sustainable alpha are inherently more volatile (i.e., more risky) than highly diversified or index-like portfolios when viewed in isolation. One of the goals of S-CAP will be to develop the optimal combination of alpha generating strategies that, when viewed in the aggregate, will provide the required level of diversification and risk control without sacrificing the opportunity for excess returns. Enhanced or structured investment strategies will also be considered as part of the S-CAP structure as a method to control aggregate risk and gain broad exposure to the domestic equity markets.

D. Intensive Analysis of Manager Combinations

Individual manager strategies can appear risky when viewed in isolation. When carefully reasoned combinations of diverse investment strategies are viewed in the aggregate, the resulting portfolios can produce a return pattern over time that exhibits very favorable risk/return characteristics. With that goal in mind, the Staff and Consultant will give careful consideration to manager combinations through the incorporation of sophisticated risk management techniques. This intensive analysis of the way in which individual portfolios perform within a larger composite will be part of the manager search process and the ongoing evaluation of the S-CAP Program.

E. Increased Manager Opportunity Set

It is expected over time that the Small-Cap Program will utilize between five and seven external asset managers. Due to the smaller individual assignment sizes resulting from this expected usage of external service providers, the universe of potential managers is expected to meaningfully increase. The Systems' employ a rule that PSRS/NTRS's assets shall not account for more than 25.0 percent of a manager's assets in a given product. This rule is applied to the entire manager structure, including the S-CAP portfolio. The combination of PSRS/NTRS's very substantial asset base and application of the 25.0 percent rule can result in the elimination of a number of quality investment management firms from the search for qualified service providers. The smaller account sizes within S-CAP is expected to help alleviate this problem, allowing for a greater reliance during the search process on screens that are designed to identify firms with creative and unique investment philosophies that also have the internal resources needed to replicate past success.

Manager Allocation Strategies

Allocations to the S-CAP managers may be altered over time as a means to control risk and add incremental excess returns. Actual allocations to S-CAP managers may deviate from initial targets as a result of market fluctuations or from the transfer of assets from one manager to another. The manager allocation strategies employed within S-CAP may from time to time result in modest 'style tilts' to the portfolio. All active decisions to reallocate funds within S-CAP that result from changes in the target manager weights are based on a careful assessment of the expected relative risk and return potential for each manager. Incorporation of tactical manager allocation strategies is expected to improve the risk/return profile of S-CAP without materially impacting the broader Domestic Equity structure. The Guidelines for Manager Allocations are described in Section VI of this document.

IV. Investment Responsibilities

This section of the Implementation Manual specifically addresses the roles and responsibilities of the Board of Trustees, Executive Director, Investment Staff, Lead Consultant and Consultant Staff as they pertain to the Small-Cap Program. The Systems' Investment Policy describes the roles and responsibilities of the parties as they relate to other components of PSRS/NTRS investments.

Board of Trustees

The Board of Trustees has general oversight responsibilities for S-CAP to ensure the prudent utilization of the Systems' assets allocated to the Program. The Board relies on the analysis and recommendations of the Investment Staff and Consultant prior to taking investment action. The Investment Staff and Consultant provide information to the Board both prior to and during its regular meetings. The Board approves the policies and procedures for S-CAP contained in this Implementation Manual.

As part of the oversight process, the Board relies primarily upon the following:

- Independent, annual reporting by the Lead Consultant,
- Quarterly performance reporting for the S-CAP composite,
- Inclusion of S-CAP in the 'Adopt-A-Manager' program,
- Semi-annual written reviews by Staff, and
- Participation by the S-CAP managers in the annual Manager Symposium (when appropriate).

The S-CAP portfolio participates in the 'Adopt-A-Manager' program through meetings that occur at least annually with Staff, where Staff is the manager. The meetings serve as a formal review of the S-CAP Program, with meetings taking place in PSRS/NTRS's offices or the offices of the Consultant.

In addition to program oversight, the Board reviews manager selection and termination decisions made by the Investment Staff and Consultant Staff, relying upon information and analysis supplied by the parties as part of its review of this activity.

Executive Director

The Executive Director adds another layer of oversight and evaluation to S-CAP by ensuring that assets allocated to the Program are invested in accordance with the Systems' policies and procedures. The Executive Director must agree in writing to all hiring and termination decisions prior to the execution or cancellation of a contract with external service providers. The Executive Director relies heavily on the Investment Staff and the Consultant in fulfilling these responsibilities.

Investment Staff

The Investment Staff is responsible for administering all facets of the S-CAP Program. Staff's responsibilities for S-CAP include, but are not limited to, the following:

- Development and maintenance of the Implementation Manual,
- Conducting manager searches with the Consultant Staff,
- Making manager hiring and termination decisions,
- Manager structure and the development and implementation of manager allocation strategies,
- Portfolio rebalancing,
- Monitoring and evaluation of external asset managers,
- Semi-annual written reviews,
- Reconciling performance reporting by the parties, and
- Program evaluation and refinement.

As part of the evaluation of existing managers, Staff meets at least once per year with each firm to formally review performance and investment activity. Staff carefully monitors the managers to ensure compliance with the Systems' policies and procedures and to make sure each firm is adhering to the investment guidelines established for their mandate.

Staff meets each year with the Consultant to review the S-CAP portfolio and also participates in the PSRS/NTRS 'Adopt-A-Manager' program. The Investment Staff works closely with the Lead Consultant and members of the Consultant's Staff.

External Asset Consultant

The Consultant's responsibilities are twofold. The primary duty is to provide an independent evaluation of the Small-Cap Program to the Board of Trustees and is fulfilled by the lead member of Consultant's team. The Lead Consultant conducts a formal review of S-CAP, reporting to the Board on an annual basis. The Lead Consultant must agree in writing to all manager hiring and termination decisions. The Lead Consultant acts in an oversight role, reviewing and questioning the recommendations of the Investment Staff and Consultant Staff. Performance reporting by the Lead Consultant and/or Staff is incorporated into the Quarterly Performance Report to the Board as a single line item for the S-CAP composite.

The second component of the Consultant's responsibilities is assigned to members of the Consultant Staff. Members of the Consultant Staff work closely with the

PSRS/NTRS Staff, providing an independent perspective on the Program's administration. Staff members help conduct manager searches in combination with the Investment Staff and work with the Systems in developing S-CAP policies and manager target allocations.

VII. Manager Hiring and Termination Policy

Introduction

On October 25, 2004, the Board of Trustees of The Public School and The Non-Teacher School Employee Retirement Systems of Missouri ('PSRS/NTRS' or 'Systems') approved the policies and procedures for hiring and/or terminating external asset managers for the Small-Cap Program. The following paragraphs serve to codify these practices.

The Board has delegated to the Investment Staff and Consultant all manager hiring and termination decisions within the S-CAP portfolio. In establishing this policy, it is the Systems' intention to assure interested parties that actions taken during the process of implementation and maintenance of the S-CAP Program occur in an environment of full disclosure that is characterized by competitive bidding, objective evaluation and thorough documentation. The overriding consideration with respect to all decisions is that they are made solely in the best interests of plan participants and beneficiaries.

To assure that all manager hiring and termination decisions adhere to the Board's intentions, all such actions shall be unanimously agreed to by the Executive Director, Chief Investment Officer and Lead Consultant. As part of their oversight responsibilities, the Board shall review all manager selections prior to the execution of an official contract with an external service provider. The Investment Staff will inform the Board within 72 hours of a manager termination decision. It is the responsibility of the Investment Staff and Consultant to provide the necessary documentation to the Board of Trustees once the decision to take investment action has been made.

Hiring and/or Termination of External Asset Managers

The Investment Staff and Consultant Staff will take action to hire or terminate external asset managers under one or more of the following circumstances:

- To initially implement a prudent and diversified manager structure for the S-CAP portfolio,
- When the need for an assignment type has been identified that will materially improve the diversification and/or risk-return profile of the portfolio,
- To remove one service provider in favor of another, and/or
- When the need arises to eliminate an assignment within S-CAP.

Documentation of the Decision-Making Process

Documentation materials prepared by the Staff and Consultant Staff regarding action to hire or terminate a manager(s) will include a full description of the reason for the action, the expected benefits resulting from the action and a full review of the decision-making process. The primary focus of the Staff and Consultant Staff when preparing documentation regarding the hiring and/or termination of external asset managers will be on providing the Board with the level of information necessary to satisfy all parties that decisions were well reasoned, carefully considered and prudent.

Minimum Criteria for External Asset Managers

In order to receive consideration for an assignment within S-CAP a manager must meet certain minimum criteria. In addition to these basic requirements that apply to all S-CAP searches, a manager must also comply with any additional search criteria defined by the Staff and Consultant Staff that have been established for a particular assignment. The minimum criteria for external asset managers are described below.

Organizational Qualifications. To be selected as an external service provider, a manager shall meet the following organizational criteria:

- Qualified to serve as a fiduciary to the Systems,
- Registered with the SEC,
- Free of conflicts of interest, and
- Have a proven record of professionalism and ethical behavior.

In addition, a manager must have a level of assets under management so that the addition of funds from PSRS/NTRS will not cause the assets of the Systems to exceed 25.0 percent of the manager's total assets in the product.

Investment Style and Process. The investment style and process employed by a manager must be compatible with the Systems' investment objectives and policies. The manager should also have a proven record of adherence to an established investment philosophy over time.

Personnel. A manager must have an experienced professional staff with adequate support personnel to meet the necessary reporting requirements. A manager should be able to demonstrate policies designed to attract and retain key personnel.

Performance. The manager and/or its personnel shall have a demonstrated ability to achieve superior performance in the investment approach under consideration.

Manager Search Process

External asset managers qualified to fill assignments within the S-CAP portfolio are identified through the manager search process. The Investment Staff and Consultant Staff are charged with the responsibility of conducting the necessary searches for qualified service providers. Each step of the process is thoroughly documented in a Manager Search Book that is provided to the Executive Director and Board of Trustees for their review. The Search Book is intended to provide documentation that all relevant issues have been disclosed, that the search process was conducted fairly, and that the policies and procedures outlined herein were followed to the Board's satisfaction.

Competitive Environment. The search for external asset managers will be conducted in an open and competitive environment to ensure that qualified providers are identified, the process is fair and objective, and that pricing is reasonable. In instances where multiple providers exist, a meaningful sample of qualified firms must be considered and evaluated in relationship to each other. If a situation arises in which an investment approach is unique to a specific firm, a full description of the unique characteristics of the firm and the reasons why a competitive alternative does not exist must be documented.

Manager Selection Criteria. The Investment Staff and Consultant Staff will jointly develop the manager selection criteria used to screen the universe of potential service providers. In order to identify the most qualified service providers, manager screens will be tailored to each specific assignment within the S-CAP portfolio. The Investment Staff and Consultant Staff will independently apply the screening criteria to the manager universe to ensure fairness and consistency.

Requests for Proposals. Requests for Proposals (RFP's) developed by the Staff and Consultant Staff will be sent to qualified service providers. A copy of the RFP questionnaire will be included in the documentation materials presented to the Board. The Staff and Consultant Staff will independently assess and rank the RFP respondents based on a set of established criteria.

Due Diligence. The investment management firms receiving the highest rankings by the Staff and Consultant Staff will be subjected to an intensive due diligence effort. The Staff and Consultant Staff participate jointly in this process. Both parties conduct a number of quantitative and qualitative analyses and on-site meetings will be conducted on all managers that are ultimately hired by the Systems.

Manager Selection and Search Process Documentation. The manager receiving the highest collective ranking from the search team is selected to fill the designated assignment within the S-CAP portfolio. The Executive Director and Board review all manager selections prior to the execution of an official contract with the chosen external service provider. The Investment Staff and Consultant Staff are responsible for the preparation of all search process documentation.

VIII. Implementation

A. Guidelines for Manager Allocations

The Investment Staff, with the advice of the Consultant Staff, determines the size of the allocations to each manager within the S-CAP Program. Allocations to the S-CAP managers may be altered over time or allowed to deviate from initial targets as a means to control risk and add incremental excess returns. The manager allocation strategies employed within S-CAP may from time to time result in modest 'style tilts' relative to the Russell 2000 Index. Incorporation of this strategy is expected to improve the risk/return profile of S-CAP without materially impacting the broader Domestic Equity structure.

Monitoring the allocations to each manager and, when necessary, making strategic changes to those allocations to take advantage of market and investment management opportunities are important components of Staff's responsibilities in managing the S-CAP Program. Staff shall adhere to the following guidelines when determining the dollar allocations to the S-CAP managers:

- Changes to the manager allocations shall be based on longer-term expectations and should not be guided by short-term fluctuations in the capital markets,
- A prudent level of style and process diversification shall be maintained at all times,
- No fewer than three, and no more than eight, external asset managers shall be utilized,
- No external asset manager shall invest more than 40.0 percent of S-CAP's total assets based on market values, and
- Any changes in the allocations to managers should be completed in a cost efficient manner, utilizing 'natural'cash flows to the extent possible.

In addition, Staff shall manage the allocations within S-CAP so that the aggregate investment style of the portfolios falls within the ranges shown below:

	Minimum Allocation	**Style Neutral Target**	**Maximum Allocation**
% Value	35	50	65
% Growth	35	50	65

Note: Investment style exposure will be measured using the Frank Russell Style Indices.

It is possible, at times, that a manager may be under contract with the Systems but will not manage any assets. Such a situation would be based on the Systems' manager allocation strategies. The initial allocations and all reallocations are based on a careful assessment of the relative risk and return potential for each manager. The Investment Staff is responsible for documenting the rationale for actions taken in accordance with this policy.

B. Asset Class Rebalancing

S-CAP will be treated as one portfolio for purposes of implementing PSRS/NTRS's broad asset class rebalancing policies. As such, when the asset class rebalancing trigger points are breached, the S-CAP portfolio will typically be rebalanced back to the target weight within the overall manager structure.

C. External Asset Manager Fees

The Investment Staff and Consultant Staff are responsible for securing the services of qualified service providers at fee levels that are reasonable and competitive. The Staff and Consultant Staff will work diligently to assure the most favorable fee arrangements for the Systems. In accordance with that policy, Staff and Consultant Staff will consider a number of different fee structures. Both asset-based and performance-based fee alternatives will be considered. All performance-based fee structures, however, will be carefully compared and contrasted to traditional asset-based fee options.

D. Manager Guidelines

Individual Investment Guidelines will be established for each external asset manager. These guidelines will be specific as to the particular role of that manager's portfolio in the overall S-CAP structure, and will address the following topics:

- Permissible investments,
- Style adherence,
- Diversification,
- Portfolio quality,
- Performance objectives, and
- Other manager-specific issues.

Compliance with the Systems' Investment Guidelines is mandatory. No deviation will be permitted without express written permission, in advance, from the Investment Staff.

E. Ongoing Manager Evaluation

The Investment Staff is responsible for the monitoring and evaluation of the external asset managers employed by the Systems as part of the S-CAP Program. In fulfilling this role, Staff meets at least annually with each manager to formally review performance and investment activity.

In addition to these formal review mechanisms, the Investment Staff engages in a number of activities designed to oversee the external management of S-CAP assets. Staff carefully monitors the managers to ensure compliance with the

Systems' investment policies and procedures and to make sure each firm is adhering to the specific Investment Guidelines established for each mandate. As part of the managers' responsibility, they are required to complete a quarterly analysis of their investment activities in a Standard Reporting Format developed by Staff. The Staff combines the information received from the managers with its own internally generated analyses and data from the Custodian to complete the review process of the S-CAP managers.