

III. IPS Conforming Update:

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

INVESTMENT POLICY STATEMENT

QUALIFIED PENSION PLAN AND TAX DEFERRED ANNUITY PLANS*

Adopted June 15, 2006

Amended through June 30, 2013

***Does not include the Variable Annuity Programs**

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TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

INVESTMENT POLICY STATEMENT – EXECUTIVE SUMMARY Qualified Pension Plan and Tax Deferred Annuity Plans*

Dated June 30, 2013

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***Does not include the Variable Annuity Programs**

Section A. PURPOSE OF THE INVESTMENT POLICY STATEMENT

The Teachers' Retirement Board (Board) of the Teachers' Retirement System of the City of New York City (TRS) adopts this Investment Policy Statement (IPS) in furtherance of the management and investment of certain assets of the Qualified Pension Plan and Tax Deferred Annuity Assets (the Fund). This Fund does not include the assets of the Variable Annuity Programs.

The IPS is intended to outline the investment objectives for the Fund and the assignment of investment policy roles.

Section B. INVESTMENT POLICY ROLES

B(1). Teachers' Retirement Board

As provided in the New York City Administrative Code, the Board is responsible for setting policy and overseeing TRS's operations. The Board is composed of seven members:

- Three Teacher-Members are elected to the Board by the members of TRS.
- The Mayor appoints two Board members, one of whom must be a member of the Department of Education.
- The Comptroller of the City of New York (Comptroller)
- The Chancellor of the Department of Education

Each act of the Board requires the concurrence of the Comptroller or of one member appointed by the Mayor, as well as a member elected by the TRS membership and at least two other members of the Board.

The Board, as a fiduciary, is responsible for the management of the Fund. Responsibilities of the Board include the following:

- Establish and adopt, from time to time, written investment policies including delegations of authority, desired risk levels, investment time horizons, and proxy voting policies. The written investment policies will guide the management of the Fund consistent with the Fund's investment goals and objectives.
- Approve the retention of the Fund's actuary.
- Adopt an appropriate asset allocation strategy that diversifies assets in a manner consistent with the Board's risk/return objectives. The investment of the Fund's assets is governed by federal, state and local law. The Board may invest in securities and other eligible investments consistent with New York State Banking Law, New York State Retirement Social Security Law (RSSL), and other applicable laws and rules subject to applicable restrictions.
- Consider and approve appropriate investment strategies including securities lending

strategies.

- Determine the Investment Manager structure for implementation of investment strategies, including such factors as manager style and active versus passive (indexed) management approaches. Select Consultants and Investment Managers to implement the investment strategies.
- Approve the commencement and participation in securities litigation, its strategy, and settlement.
- Monitor the performance of Fund assets as well as the investment activities of all Investment Managers and Consultants as they affect Fund assets.
- Approve reasonable and necessary investment expenses to acquire, manage and protect Fund assets.

B(2). Comptroller

Under the New York City Administrative Code, the Comptroller also serves as custodian for TRS's assets. As custodian, the Comptroller performs activities including:

- Selection of one or more custody banks, including a Master Custodian for the safekeeping of the Fund's assets, and monitoring of the performance of the custodians.
- Reconciliation of the monthly accounting statements rendered by the Master Custodian with (a) daily information on trades and positions of publicly traded securities provided by Investment Managers; and (b) periodic information provided by Consultants and Investment Managers regarding illiquid securities.
- Review, audit and processing of payments to Consultants, Investment Counsel, and Investment Managers.

By delegation, which is reviewed quarterly by the Board, the Comptroller is authorized to invest the assets of the Fund. In this role, the Comptroller provides investment advice, implements Board decisions, and reports on investment performance. In carrying out these functions, the Comptroller:

- Advises the Board on all investment issues, including:
 - Investment policy and strategy
 - Asset allocation
 - Manager structure
 - Manager selection
 - Financial and economic developments that may affect the Fund.

- Evaluates and recommends to the Board potential investment partners, Consultants, and Investment Managers for TRS's assets pursuant to established procedures and Board policies.
- Provides the Board's Proxy Committee analyses of proxy issues and vote recommendations, votes proxies of domestic equity securities in accordance with the Board's policies, and recommends and implements annual ownership initiatives.
- Informs the Board of significant developments regarding TRS's assets.
- Implements Board investment decisions.
- Rebalances the portfolio within ranges around the asset allocation targets established by the Board.
- Implements portfolio transitions to effectuate Board decisions.
- Negotiates, enters into, renews, administers and terminates agreements with Investment Managers, Consultants and investment partners on behalf of the Board.
- Directs Investment Managers to sell assets to meet TRS's liquidity needs, and transfers cash to TRS's accounts.
- Monitors the performance of Investment Managers who have been selected by the Board, and reports regularly to the Board on potential issues requiring Board attention.
- Provides regular reports to the Board on the performance of Fund assets.
- Adopts detailed investment guidelines for Investment Managers to ensure implementation of Board mandates and then monitors compliance with these guidelines.

In executing each of these responsibilities, the Comptroller works closely with Consultants selected by the Board.

B(3). Executive Director

The TRS Executive Director is responsible for the internal administration of the Retirement System. The Board appoints the Executive Director. He or she oversees the internal processes necessary for the accurate and timely payment of all benefits and the proper accounting of all financial transactions. He or she is further responsible for overseeing the establishment, monitoring and safeguarding of TRS's internal records and satisfying TRS's external reporting requirements.

The Executive Director organizes Board meetings and reports to the Board on operational issues,

benefit payments, and service levels. He or she ensures that TRS maintains efficient operating procedures consistent with the statutory structure of the fund in compliance with federal, state and local legislation.

B(4). Actuary

The Actuary offers information and advice to the Board as assistance in the Board's determination of an Investment Policy. In particular, the Actuary provides guidance with respect to future cash flows, liabilities, risks and the impact of Investment Policy on the funding of TRS.

The Actuary advises the Board regarding funding issues, including the level of the Actuarial Interest Rate ("AIR") assumption that the Actuary would support for a given Investment Policy. The Actuary periodically recommends to the Board an AIR assumption, which is currently set at 7.0%¹ per annum, net of expenses. The AIR assumption is ultimately codified in the New York City Administrative Code.

Section C. INVESTMENT OBJECTIVE

The overall investment objective of TRS is to achieve a competitive market rate of return compatible with its risk tolerance and with prudent investment practices, and which, together with employee and employer contributions, will allow it to meet current and future benefit obligations and plan expenses. TRS maintains a long-term perspective in formulating and implementing its Investment Policy, as well as in evaluating its investment performance because of the long-term nature of its liabilities.

In implementing its investment objective, the Board considers capital market assumptions on projected returns and risks of a variety of asset classes, as well as the current AIR assumption. Based on the actuarial assumptions and methods recommended by the Actuary and adopted by the Board, the return on assets, together with employee and annual employer contributions, is expected to fully allow the fund to meet current and future benefit obligations. Investment performance that exceeds or underperforms the AIR assumption may materially affect future employer contribution rates. The Board seeks to have long-term investment performance that will equal or exceed its AIR assumption.

Section D. ASSET ALLOCATION

The Board expects asset allocation to be the primary determinant of the Fund's ability to achieve its investment objective. Expected returns for asset allocation purposes are calculated based on five-year capital market expectations. Return expectations are consistent with Modern Portfolio Theory in that, for example, equities are expected to generate a higher return than fixed income instruments over the long run, commensurate with their higher expected return. For this reason, equities, and in particular U.S. equities, comprise the largest portion of the Fund's assets. The Board also strives to diversify the portfolio to manage risk. Diversification is achieved by investing in asset classes such as fixed income, real estate, and private equity – asset classes in

¹ Per Bob North's Resolution of February 2012 and subsequent legislative change.

which price movements are less correlated with the price movements of U.S. equities. Moreover, the Board seeks to diversify its portfolio by capitalization, geography, economic sector, and other relevant factors. The Fund's asset allocation policy is developed through asset allocation analyses performed in collaboration with the Comptroller's Office, the Actuary and the Fund's Consultant. The Board approves an asset allocation policy, which is then implemented by the Comptroller's Office.

TRS last adopted an asset allocation in June 2011. The Table below shows the adopted long-term strategic allocation.

Asset Class	Target Allocation	Rebalancing Range
U.S. Equity	31%	+ - 6
Non-U.S. Equity	9%	+ - 4
Emerging Markets Equity	8%	+ - 4
Real Estate Equity Securities	3%	+ - 1.5
Private Equity	6%	+ - 2
Private Real Estate	6%	+ - 2
U.S. Fixed Income (Core + 5)	18%	+ - 4
U.S. TIPS	4%	+ - 2
Enhanced Yield	4%	+ - 2
Emerging Markets Debt	3%	+ - 1.5
Opportunistic Fixed Income	5%	+ - 2
Convertible Bonds	3%	+ - 1.5

Section E. AMENDING THE INVESTMENT POLICY STATEMENT

The Board reserves the right to amend the Investment Policy Statement at any time it deems such amendment to be necessary or to comply with changes in Federal, State or City Laws or regulations as these changes may affect the investment of Fund assets. In any event, a review of this Investment Policy Statement shall be undertaken no less frequently than every three years.

The following sections detail the investment policies for the assets of the Qualified Pension Plan and related Tax Deferred Annuity assets of the Teachers' Retirement System of the City of New York (other than the assets invested in the Variable Annuity Programs).

Section I. PURPOSE OF THE INVESTMENT POLICY STATEMENT

The Teachers Retirement Board (“Board”) of the Teachers’ Retirement System of the City of New York (“TRS”) adopts a written, comprehensive and integrated Investment Policy Statement (“IPS”) in furtherance of the management and investment of the assets of the Qualified Pension Plan and Tax Deferred Annuity Assets (the “Fund”). This Fund does not include the assets of the Variable Annuity Programs.

The IPS sets forth the investment objectives and philosophy of TRS investment program, as well as its major components, procedures and policies relating to risk tolerances, liquidity needs, asset allocations and rebalancing ranges. The Statement sets forth procedures to oversee and evaluate the overall performance of the Fund. The Statement further provides a procedural framework for the Board of Trustees and the Office of the Comptroller (“OTC”) to select, retain, monitor and evaluate the performance of Investment Managers (“Managers”), Consultants and others.

Section II. INVESTMENT POLICY ROLES

A. Teachers' Retirement Board

TRS is administered by the Board, which is comprised of seven members who may vote, pursuant to the New York City Administrative Code, as described below.

1. Two Board members are appointed by the Mayor, each of who is entitled to cast one vote. One of these members must also be a member of the Department of Education.
2. The Comptroller is entitled to cast one vote.
3. Three Teacher-Members are elected to the Board by the members of TRS, each of who is entitled to cast one vote.
4. The Chancellor of the Department of Education is entitled to one vote.

Board members may designate alternate representatives to serve in his or her place as authorized by applicable law.

The Board shall elect from its membership a chair.

Each act of the Board requires the concurrence of the Comptroller or of one member appointed by the Mayor, as well as a member elected by the TRS membership and at least two other members of the Board.

The Board, as a fiduciary, is responsible for the management of the Fund. Activities of

the Board include the following:

- Establish and adopt, from time to time, written investment policies, including delegations of authority, desired risk levels, investment time horizons, and proxy voting policies. The written investment policies will guide the management of the Fund consistent with the Fund's investment goals and objectives.
- Adopt an appropriate asset allocation strategy that diversifies assets in a manner consistent with the Board's risk/return objectives. The investment of the Fund's assets is governed by federal, state and local law. The Board may invest in securities and other eligible investments consistent with New York State Banking Law, New York State Retirement Social Security Law (RSSL), and other applicable laws and rules, subject to applicable restrictions.
- Consider and approve appropriate investment strategies including securities lending.
- Approve the retention of the Fund's actuary.
- Determine the Manager structure for implementation of investment strategies, including such factors as manager style and active vs. passive (indexed) management approaches. Select Consultants and Managers to implement the investment strategies.
- Approve the commencement of securities litigation, its strategy, and settlement.
- Monitor the performance of Fund assets as well as the investment activities of all Managers and Investment Consultants as they affect Fund assets.
- Approve reasonable and necessary investment expenses to acquire, manage and protect Fund assets.

B. Comptroller

Under the New York City Administrative Code, the Office of the Comptroller ("OTC") also serves as custodian for TRS' Fund assets. As custodian, the OTC performs activities including:

- Selection of one or more custody banks, including a Master Custodian for the safekeeping of TRS' Fund assets, and monitoring of the performance of the custodians.
- Reconciliation of the monthly accounting statements rendered by the Master

Custodian with (a) daily information on trades and positions of publicly traded securities provided by Investment Advisors; and (b) periodic information provided by Managers and Consultants regarding illiquid securities.

- Review, audit and processing of payments to Investment Advisors, Investment Counsel, Managers, and Consultants.

By delegation, which is reviewed quarterly by the Board, the OTC is authorized to invest the assets of the Fund.

In its role as Investment Advisor, the OTC provides investment advice, implements Board decisions, and reports on investment performance. In carrying out these functions, the OTC:

- Advises the Board on all investment issues, including:
 - Investment policy and strategy
 - Asset allocation
 - Manager structure
 - Manager selection
 - Financial and economic developments that may affect the Fund.
- Evaluates and recommends to the Board potential investment partners, Consultants and Managers for TRS' Fund assets pursuant to established procedures and Board policies.
- Provides the Board's Proxy Committee analyses of proxy issues and vote recommendations, votes proxies of domestic equity securities, and recommends and implements such annual ownership initiatives.
- Informs the Board of significant developments regarding TRS' Fund assets.
- Implements Board investment decisions.
- Rebalances the portfolio within ranges established by the Board.
- Implements portfolio transitions to effectuate Board decisions.
- Negotiates, enters into, renews, administers and terminates agreements with Managers, Consultants and investment partners on behalf of the Board.
- Directs Managers to sell assets to meet TRS' liquidity needs, and transfers cash to TRS' accounts.
- Monitors the performance of Managers who have been selected by the Board, and reports regularly to the Board on potential issues requiring Board

attention.

- Provides regular reports to the Board on the performance of Fund assets.

In executing each of these responsibilities, the OTC works closely with Consultants selected by the Board.

C. Executive Director

The TRS Executive Director is responsible for the internal administration of the Retirement System. The Board appoints the Executive Director. He or she oversees the internal processes necessary for the accurate and timely payment of all benefits and the proper accounting of all financial transactions. He or she is further responsible for the establishment, monitoring and safeguarding of TRS' internal records and satisfying TRS' external reporting requirements.

The Executive Director organizes Board meetings and reports to the Board on operational issues, benefit payments, and service levels. He or she ensures that TRS maintains efficient operating procedures consistent with the statutory structure of the Fund in compliance with federal, state and local legislation.

D. Actuary

The Actuary offers information and advice to the Board as assistance in the Board's determination of an Investment Policy. In particular, the Actuary provides guidance with respect to future cash flows, liabilities, risks and the impact of Investment Policy on the funding of TRS.

The Actuary advises the Board regarding funding issues, including the level of the Actuarial Interest Rate ("AIR") assumption that the Actuary would support for a given Investment Policy. The Actuary periodically recommends to the Board an AIR assumption, which is currently set at 7.0%² per annum, net of expenses. The AIR assumption is ultimately codified in the New York City Administrative Code.

Section III. ELIGIBLE INVESTMENTS

The investment of the Fund's assets is governed by federal, state and New York City law. The Board may invest in securities and other eligible investments primarily described in Section 235 of the New York State Banking Law and Article 4-A of the New York State Retirement Social Security Law (RSSL), Sections 176 – 179a, subject to applicable restrictions.

² Per Bob North's Resolution of February 2012 and subsequent legislative change.

Within the parameters of the law, the Board establishes asset allocations and awards investment management contracts subject to the following overall policies:

- Fund assets generally may be invested in mortgages, bonds, notes and other fixed income securities of U.S. and certain other issuers.
- Up to 70% of Fund assets may be invested in public equities, including common stock, preferred stock, and investment company shares. Within the overall 70% limit:
 - Up to 70% of Fund assets may be invested in equity securities of U.S.-based publicly traded companies that are traded on a U.S. exchange.
 - Up to 10% of Fund assets may be invested in equity securities of non-U.S.-based publicly traded companies that are traded on a U.S. or foreign exchange and meet certain other requirements.
 - Additionally, up to 10%³ of Fund assets may be invested in U.S. equity real estate. These investments are included in the overall 70% limit on public equities, even if the underlying securities are not publicly traded.
- In addition, under RSSL Section 177's Basket Clause, the Fund may invest up to 25% of its assets in investments that do not qualify or are not otherwise expressly authorized under RSSL Section 177 or other provisions of law, subject to certain limitations. Examples of such investments include:
 - Equity real estate in excess of 10% of the market value of Fund assets.
 - Private equity investments.
 - Other investments that do not qualify or are not expressly authorized under RSSL Section 177 or other provisions of law.
- Further, the Board adopted a resolution to prohibit investments in companies that receive more than 20% of their total revenues from the manufacture of civilian firearms or ammunition (the Gun Manufacturers), and to divest from all such investments within the Fund. This prohibition is applicable to both public and private investments.⁴

Section IV. INVESTMENT OBJECTIVE

The overall investment objective of TRS is to achieve a competitive market rate of

³ Per Legislative change to the NYS RSSL in February 2011

⁴ In February 2013, the Board adopted a resolution to prohibit investments in Gun Manufacturers.

return compatible with its risk tolerance and with prudent investment practices, and which, together with employee and employer contributions, will allow it to meet current and future benefit obligations and plan expenses. TRS maintains a long-term perspective in formulating and implementing its Investment Policy, and in evaluating its investment performance because of the long-term nature of its liabilities.

In implementing its investment objective, the Board considers capital market assumptions on projected returns and risk of a variety of asset classes, as well as the current AIR assumption.

Based on the actuarial assumptions and methods recommended by the Actuary and adopted by the Board, the return on assets, together with employee and annual employer contributions, is expected to fully allow the Fund to meet current and future benefit obligations. Investment performance that exceeds or underperforms the AIR assumption may materially affect future funding rates. The Board seeks to have long-term investment performance that will equal or exceed its AIR assumption.

Section V. INVESTMENT PHILOSOPHY AND STRATEGY

The IPS establishes the investment philosophy and strategy of the Board, as well as implementation procedures. The Board may review and revise the IPS from time to time as market conditions or other factors make such revisions advisable.

The Board expects asset allocation to be the primary determinant of the Fund's ability to achieve its investment objective. Expected returns for asset allocation purposes are calculated based on five-year capital market expectations. Return expectations are consistent with Modern Portfolio Theory in that, for example, equities are expected to generate a higher return than fixed income instruments over the long run, commensurate with their higher expected risk. For this reason, equities, and in particular U.S. equities, comprise the largest portion of the System's assets. The Board also strives to diversify the portfolio. Diversification is achieved by investing in asset classes such as fixed income, real estate, and private equity – asset classes in which price movements are less correlated with the price movements of U.S. equities. Moreover, the Board seeks to diversify its portfolio by capitalization, geography, economic sector, and other relevant factors.

The Fund maintains a long-term investment focus implemented through a policy of rebalancing assets to policy weights on a regular basis. Although the Board reviews performance of the Fund, and of individual Managers, on a quarterly basis, and compares them to established benchmarks, the Board establishes long-term strategy through asset allocation studies conducted periodically. These studies assess long-term expected capital market returns, and include reviews of the Manager structure used to implement the asset allocation policy. The Board may also conduct an asset/liability study when, in its discretion, it believes such a study could assist in the asset allocation process.

Section VI. ASSET ALLOCATION AND REBALANCING

When the Board desires to conduct an asset allocation review the OTC works with TRS' general Consultant (the "Consultant") to present the Board with alternative structures reflecting different risk and return scenarios and asset class diversification strategies. In recommending capital market assumptions and considering asset classes, the OTC and the Consultant coordinate their efforts with those of the general Consultants to the other New York City Retirement Systems.

The Fund's asset allocation policy is developed through asset allocation analyses performed in collaboration with the OTC, the Actuary and the Fund's consultant. The Board approves an asset allocation policy, which is then implemented by the OTC. Any resulting changes in asset allocation are incorporated into the IPS.

To implement changes to the Fund's asset allocation, the OTC issues requests for proposals ("RFPs") or, in the case of illiquid investments, coordinates, with specialist Consultants, a competitive process for the selection of investments (in either case, the "Investment Selection Process"). At the end of the Investment Selection Process, the Board selects Advisors, Managers or other vendors, where appropriate, to invest and manage funds. The OTC arranges funding to the Manager(s) selected by the Board consistent with these decisions.

TRS adopted its current target Long Term Strategic Allocation (asset allocation) in June 2011. The Table below shows the adopted allocation.

Subsequent to the Asset Allocation adopted in June 2011, the TRS Board approved new rebalancing ranges and interim asset class holding places (parking places) for unfunded commitments. The rebalancing ranges were adopted by the Board in December of 2011, and were subsequently amended in May 2013.

The unfunded allocation to Non-Core Private Real Estate and Private Equity should be temporarily invested in Domestic Equity; while unfunded allocations to Core Private Real Estate are temporarily allocated to Core +5 Fixed Income. The unfunded allocation to Emerging Market (EM) Debt should be temporarily allocated 25% to EM Equity, 25% to Cash, and 50% to Enhanced Yield Fixed Income. For the allocation to Opportunistic Fixed Income, 80% of the unfunded amounts should be held in Enhanced Yield Fixed Income, while the remaining 20% is to be held in Domestic Equities.

	Adopted Long Term Strategic Allocation	Rebalancing Range
Equity Securities		
Domestic Equity	31%	+/- 6
Non-U.S. Equity	9	+/- 4
Emerging Markets Equity	8	+/- 4
REITs	3	+/- 1.5
Private Equity	6	+/- 2
Private Real Estate	6	+/- 2
Total Equity	63%	
Total Public Equity		+/- 5%
Fixed Income Securities		
Core +5 Fixed-Income	18	+/- 4
Enhanced Yield**	4	+/- 2
Emerging Markets Debt	3	+/- 1.5
Opportunistic Fixed	5	+/- 2
TIPS	4	+/- 2
Convertible Bonds	3	+/- 1.5
Total Fixed-Income	37%	
Total Public Fixed-Income		+/- 11%

** Effective June 2012, the Board also adopted a specific allocation of up to 1/3 of the Enhanced Yield allocation to Leveraged Loans (aka Bank Loans).

Assets are rebalanced to ensure that the System's actual investment mix remains consistent with its asset allocation policy. Volatility in the capital markets and/or over- or under-performance of a particular asset class drives the need to rebalance. The Board reviews its asset mix on a quarterly basis. This range is designed to constrain the extent to which changes in capital markets result in long-term divergences between asset allocation policy and actual investment mix. Significant or extended divergences from policy must have the approval of the Board.

The OTC implements the Board's rebalancing policy. The OTC monitors the actual investment mix and compares it with the asset allocation policy on a monthly basis. The primary tool for controlling asset class exposure is the payment of pension benefits and expenses from Fund assets. As funds are needed for these payments, the OTC seeks to liquidate assets in overweight classes. Assets are liquidated with a goal of maintaining the Board's allocation decisions to asset classes and to portfolio structure targets within asset classes.

In implementing the rebalancing policy, maximizing the alignment of actual and policy

asset allocation is not the sole consideration. The OTC is authorized to take into account factors which a prudent investor might reasonably consider in purchasing or selling securities such as the size of the asset class, liquidity constraints of each asset class, and relative transaction costs and fees.

Other rebalancing interventions may occur when benefit and expense payments are insufficient to keep asset class exposures within the target or in response to a change in asset allocation policy.

In the event that payments of benefits and expenses are insufficient to keep the System's actual investment mix within the established ranges for the policy's asset classes, or where rebalancing is necessitated by a change in asset allocation policy, the OTC implements a plan for liquidating assets in the over-weighted asset class(es) and transferring assets to the under-weighted class(es). In constructing the plan, the OTC considers the size of the asset class, the liquidity constraints of each asset class and the transaction costs and fees connected with any such liquidation and transfer.

Coincident with the asset allocation study, the Board reviews with its Consultant the rebalancing ranges for each asset class and class component and makes any revisions to those ranges that seem appropriate given changes in capital market conditions.

Section VII. GUIDELINES

The OTC adopts detailed investment guidelines for Managers to ensure implementation of Board mandates. Managers are responsible for certifying their compliance with guidelines on a quarterly basis. The OTC also monitors guideline compliance through the Master Custodian's system.

Section VIII. LIQUIDITY

The Fund's asset allocation policy does not include an allocation to cash. Managers are generally expected to be fully invested but may maintain limited cash balances to manage duration of bond portfolios, or as a result of implementing purchases or sales of assets. Cash balances for liquidity are expected to remain below 5%,⁵ except in unusual circumstances. Cash in excess of 5% will require prior notification to, and approval by the Board.

Section IX. ROLES AND RESPONSIBILITIES OF SERVICE PROVIDERS

The Board retains service providers to assist in the management of the Fund. Such

⁵ Adopted by the Board as a part of the Asset Allocation rebalancing decision in December 2011

providers include, but are not limited to, Investment Advisors, general and specialist Consultants, and attorneys. The providers perform in a fiduciary capacity and must exercise the requisite duties of care and loyalty to TRS. The OTC retains the Master Custodian for the Fund.

A. General Consultant

The Board employs a general Consultant, which performs as a fiduciary to the Board. The responsibilities of the Consultant include:

- Advising the Board on the investment of TRS' assets.
- Advising the Board regarding strategies for the allocation of assets across capital markets that will generate a long-term return consistent with the Board's investment objectives and risk tolerance.
- Developing cost-effective structures for the implementation of the Board's asset allocation that will maximize excess returns by Managers while minimizing the volatility of the returns.
- Assisting the OTC in identifying potential Managers, in conducting research in screening Managers and in negotiating Manager contracts.
- Monitoring the Managers employed by TRS and providing reports and analyses to the Board and the OTC relating to material events such as, but not limited to, relative performance, material changes to senior personnel, investment process and organization.
- Preparing presentations or position papers on topical issues and specific projects.
- Attending meetings as required.

B. Investment Managers

Fund assets generally are managed externally by Managers retained by the Office of the Comptroller, acting on behalf of and with authorization from the Board. Exceptions include:

- Certain short-term cash reserves managed by the Master Custodian or by the OTC;
- Certain economically targeted investments, managed by the OTC ;
- Limited partnership investments, that are managed by general partners under

limited partnership agreements pursuant to the Board's Alternative Investment Policy.

Managers are identified through an RFP process and are required to enter into an investment advisory contract. Responsibilities include:

- Arranging, ordering and monitoring the purchase and sale of securities for the System's portfolio. The Manager at all times must exercise the highest standard of care to which a professional, ERISA fiduciary or Investment Advisor is subject.
- Adhering to portfolio investment guidelines, including maintaining risk management and oversight policies designed to ensure compliance.
- Advising the OTC on possible amendments to portfolio guidelines, as appropriate, given the dynamic nature of the capital markets and that are in the best interest of the System.
- Advising the OTC on capital actions relating to securities in or proposed for the portfolio.
- Submitting monthly and quarterly reports summarizing portfolio activity.
- Reporting significant changes in ownership or control of the firm or changes in organizational structure or professional staffing.
- Attending account review meetings with OTC and/or TRS as necessary, but on at least an annual basis.
- Providing accurate and timely reporting of positions and trades to the OTC.

C. Master Custodian

By statute, the Comptroller is the custodian of TRS' assets, as well as the assets of other New York City Retirement Systems. Assets include such property as cash (in any currency), securities, any other assets, and earnings and profits thereon.

As Custodian, the Comptroller retains by Agreement a Master Custodian to safeguard the property of the funds that the Custodian or its agents, representatives or sub-custodians may receive from time to time for deposit, and for other purposes. (In the case of certain assets such as international equities in commingled accounts, other custodians may be retained to serve as custodians of particular accounts.)

The Master Custodian and its agents and sub-custodians are fiduciaries to the Comptroller, TRS, and other Systems and Funds.

The Master Custodian provides many services. It holds the Fund Accounts, effects purchases and sales of the securities, collects income that becomes due and payable on property held in the accounts, makes payment from the accounts at the Comptroller's direction, and maintains books and records to clearly identify cash, securities and other property. The Master Custodian is responsible for the safekeeping of all assets, transaction processing, reporting, performance measurement and compliance, except for accounts where some of these responsibilities are performed by another custodian for a specific account.

The Master Custodian is responsible for the preparation, audit and distribution of investment account reports, plan accounting and specialized reporting for the various TRS portfolios. It calculates and reports the performance of the portfolios, using industry-accepted standards. The Master Custodian assists the Comptroller in verifying compliance with legal restrictions, investment guidelines and other policies set by TRS. It provides notification of class actions, files class action settlement proofs of claims on TRS' behalf and collects and posts settlements to various accounts. The Master Custodian also provides the Comptroller the underlying data to support TRS' proxy voting.

D. Private Equity Consultant

TRS retains one or more specialist private equity Consultants (the "PE Consultant(s)" to assist in the implementation of its strategic allocation to the private equity asset class. The Consultant(s) are fiduciaries and advise the OTC and the Board on all aspects of its private equity investment program. The responsibilities of the PE Consultant(s) include:

- Providing strategic advice:
- Periodic assessments of industry best practices with regard to policies and procedures.
- Analysis of TRS' existing private equity portfolio.
- Recommendations with respect to proposed sub-asset allocations (e.g., allocations to corporate finance/buyout funds, venture capital, etc.).
- Annual and longer-term pacing analyses, translating the TRS allocations to private equity, sub-asset allocations and existing portfolio into proposed investment plans.
- Periodic reports on the state of the private equity marketplace.
- Such other strategic advice and services as TRS or the OTC may reasonably require.

- New investment identification and evaluation, including:
- Periodic reports on current and anticipated investment opportunities.
- Specific summary and detailed due diligence reports on prospective individual private equity, limited partnerships and other investment opportunities and evaluating the investment merits of such opportunities in the context of the TRS portfolio, policies and plans.
- Detailed non-legal assistance in the negotiation and documentation of authorized commitments.
- Portfolio monitoring
- Periodic and real-time reports on developments at and performance of individual partnerships in the TRS' portfolio.
- Where necessary, advising on and assisting in actions to protect the interests of TRS as an investor and to ensure compliance by general partners with the terms of their partnership agreements.
- Reviewing and recommending courses of action on partnership amendments.
- Meeting regularly with the OTC's staff and making regular presentations to the Board concerning each of these areas of work, as well as individual investment opportunities, and such other topics as the Board or the OTC may request.

E. Real Estate Consultant

To effectively implement its real estate program, the Board has retained a specialist Consultant for real estate. The Real Estate Consultant is a fiduciary to the Board and the OTC. The Consultant advises the Board and the OTC on all aspects of its real estate investment program. Responsibilities of the Real Estate Consultant include:

- Recommending the initial program design.
- Assisting in the development, implementation, and periodic review of real estate investment policy statements/guidelines.
- Assisting in the development of a performance monitoring program.
- Assisting in the development/implementation of RFPs, the search for, and evaluation and selection of Investment Advisors and Managers, and the negotiation of contract terms.

- Prescreening prospective real estate investment opportunities to determine whether the opportunity meets the investment and portfolio objectives of the Fund.
- Conduct due diligence reviews of prospective real estate Investment Advisors, opportunities, Managers, co-investors, partners, programs, funds and prepared a written report documenting the results of each due diligence review, including a recommendation as to whether the Fund should invest in the reviewed investment.
- Monitoring investment performance and compliance.
- Providing quarterly and annual performance monitoring reports.
- Attending Investment Manager meetings.
- Conducting ongoing and systematic performance analysis in order to identify and report instances of anticipated underperformance or non-compliance with the Fund's real estate investment policies, guidelines, and strategies.
- Providing research and reports on emerging issues, market trends, new investment structures and techniques.
- Attending meetings of the Board, providing educational seminars for the Trustees, and making recommendations and presentations to the Board, as required.
- Meeting regularly with the Comptroller's staff and making regular presentations to the Board concerning each of these areas of work, as well as individual investment opportunities, and such other topics as the Board or the OTC may request.

Section X. INVESTMENT MANAGERS

A. Manager Selection - Public Markets

The Board selects Investment Managers to manage TRS' assets through a competitive RFP process described below. The Board seeks Managers that will provide superior investment management performance. In selecting Managers, the Board evaluates investment management and decision-making capabilities, organizational characteristics, including ownership, management and regulatory issues, the performance of potential Managers in specific investment mandates, and fees.

1. Process

- The OTC, working with the Consultant, develops and the Board approves a Scope of Services document that defines the investment services sought, the minimum requirements for proposers, and evaluation criteria.
- After Board approval of the Scope of Services, the OTC issues an RFP consistent with New York City procurement requirements.
- The OTC, with the Consultant's input, scores the proposals to identify a "short list" of respondents to be interviewed based on technical proposals received in response to the RFP. The OTC notifies the Trustees of the interview schedule.
- At one or more meetings open to all Trustees, the OTC and the Consultant conduct interviews.
- The OTC rescores the proposals with the additional information obtained at the interviews and with the Consultant's input.
- The OTC ranks and recommends finalists to be interviewed by the Board for potential selection.
- The Board invites the firms that they have selected as finalists to make presentations. The Board conducts interviews of each of the selected finalists.
- The Board selects Managers and with the assistance of the OTC and the Consultant, allocates assets to each firm. In making its final selection, the Board may consider such factors as:
 - The quality and depth of the Manager's investment team.
 - The Manager's clear articulation of its investment strategy.
 - The Manager's successful execution of its strategy over time, as evidenced by, for example:
 - Analysis of the Manager's historical quarterly performance calculated on a time-weighted basis, based on a Global Investment Performance Standards (GIPS) compliant composite of all fully discretionary accounts of similar investment style.
 - Performance evaluation reports prepared by the OTC with

the assistance of the Consultant that illustrate the risk/return profile of the Manager relative to other Managers in its peer group, as well as to the other Managers.

- Significant or adverse regulatory issues.
- The Manager's compliance and information systems.
- The OTC negotiates contracts with selected firms.
- OTC funds the Managers' portfolios in accordance with the Board's mandate.

2. General Requirements

Managers selected to manage publicly traded assets for TRS must be registered investment advisers under the Investment Advisers Act of 1940 or a bank or trust company as defined in the Act.

3. Contract Renewal Policy

Contracts with Managers, Consultants, and other service providers are generally awarded for an initial term of three years, and may be extended at the option of the Board twice for a maximum of three years per extension.

Contracts will provide that the Board may terminate a service provider on 30 days' notice.

B. Manager Selection - Private Markets

TRS invests in private equity using a top-down process, seeking to identify investment opportunities that represent superior opportunities relative to the marketplace as a whole and relative to other investment opportunities characterized by similar strategy. In addition, such opportunities must demonstrate a strong likelihood of producing top-quartile performance, including either:

- (a) History of top-quartile performance in a clearly articulated and consistent strategy, or
- (b) In the absence of a history of top-quartile performance in the specific investment strategy, other superior relevant experience including a combination of:
 - i. Time together as a team,
 - ii. Investment track record assembled elsewhere,
 - iii. Participation in a top-quartile effort, and
 - iv. Experience working successfully in the articulated strategy.

Pursuant to its Alternative Investment Policy, TRS each year adopts an Annual Plan, establishing sub-asset allocations as the System may deem appropriate, establishing a pace and volume of targeted investment, and identifying specific targets for investment, including both “re-ups” – renewals of existing relationships – and new investment relationships. The Board may also elect to allocate funds to discretionary Managers for discrete mandates.

Prospective investment opportunities shall be evaluated by the Consultant(s) and the OTC in the context of the IPS, the Alternative Investment Policy and the Annual Plan. The OTC shall establish and implement due diligence procedures, and shall present recommendations by the Consultant(s) and/or the Comptroller to the Board.

C. Manager Selection – Economically Targeted Investments

TRS invests in Economically Targeted Investments (ETIs). ETIs are investments in a variety of asset classes which generate rates of return commensurate with the overall risk, liquidity, security and structure of comparable non-targeted investments while providing collateral economic benefits (benefits that enhance the quality of life and promote economic development and activity) to the targeted areas. The Board, in its ETI Policy, has established requirements regarding the qualifications of prospective Managers of ETIs and evaluation criteria, by which prospective investments will be considered.

Each year TRS adopts an Annual Plan regarding ETIs. Prospective investment opportunities are evaluated by the OTC (and Consultants as appropriate) in the context of the IPS for the relevant asset class, the ETI Policy and the Annual Plan. In identifying ETIs, the OTC applies appropriate solicitation processes and due diligence procedures, and presents its recommendations to the Board. The Board considers and authorizes ETI investments.

D. Emerging Managers

The Fund seeks to employ Emerging Managers. Emerging Managers are Managers the Board believes will add significant value to the Fund through implementation of investment strategies consistent with the Board’s asset allocation and other policies, but which, because of size, length of track record, or other similar factors, have not been awarded contracts through the Board’s Manager selection process. Smaller Emerging Managers are typically retained pursuant to a Manager of Managers arrangement, while larger Emerging Managers may be retained directly. The Board implements its Emerging Manager program through a competitive RFP process.

The Emerging Manager Program includes both Fixed Income and Equity Managers. The Board has also determined that the Equity portion of the Emerging Managers

Program should be allocated entirely towards small-cap Managers⁶.

E. Brokerage

The Board delegates discretion over placement and execution of securities transactions to its Managers. It is the intention of the Board that all securities transactions be effected to the best advantage of the System regarding price and execution. 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” provisions). The Board requires its Managers to provide accounting of soft dollar transactions involving securities of the System. These reports shall be provided periodically upon request to the OTC, 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.

The Board supports diversity among brokers providing securities transaction services to its Managers. Managers are encouraged, to the greatest extent possible, consistent with best execution, to use minority- and women-owned brokerage firms. Managers will report the use of minority- and women-owned brokerage firms to the OTC.

Section XI. PERFORMANCE, MONITORING AND EVALUATION

A. Benchmarks

The Board monitors Fund performance against a variety of applicable benchmarks.

1. Policy Benchmark

To monitor the Fund, the Board adopts a Policy Benchmark, which reflects the performance of the markets to which the Board has allocated assets. As new asset allocation studies are conducted, and funds are re-allocated to new or existing asset classes, the Policy Benchmark will be adjusted to reflect such allocations. The Policy Benchmark serves as a minimum performance objective for the Fund, and allows the Trustees to evaluate the implementation of its asset allocation strategy. The Policy Benchmark will be included in all quarterly evaluation reports of TRS. As of June 30, 2013, the asset classes (and the accompanying benchmark) which comprise the Policy Benchmark are as follows:

- US Equity: Russell 3000 Index

⁶ In March 2012, The Board voted to expand the Emerging Managers Program to Fixed Income and to tilt the portfolio to a small-cap program.

- EAFE: Morgan Stanley Capital International EAFE Index (Net)
- EAFE Small Cap: Small Cap S&P EPAC
- Emerging Markets Equities: TRS FTSE Custom Emerging Markets Index
- Emerging Markets Debt: (TBD)
- Core+ 5: Citigroup Core +5 Fixed Income Index
- Enhanced Yield: Citigroup BB & B Fixed Income Index
- Leveraged Loans: Credit Suisse Leveraged Loans Index
- TIPS: Barclays Capital US Inflation-Linked Index
- Convertible Bonds: Bank of America Merrill Lynch All US Convertibles ex-Mandatory Index
- Opportunistic Fixed Income: 10% Absolute Annual Return*
- Private Equity: Russell 3000 Index + 300 bps
- REITS: Dow Jones U.S. Select Real Estate Securities Index
- Real Estate: NFI - ODCE Index (net) +100bps
- Infrastructure: Consumer Price Index ("CPI") plus 4% (net)

* The Opportunistic Fixed Income Portfolio is secondarily benchmarked to the JP Morgan Global High Yield Plus 3%, for the purpose of capturing the Program's volatility.

2. Asset Class Benchmarks

The Policy Benchmark is composed of benchmarks, which have been established for each individual asset class. The Board will review performance of each asset class relative to its selected benchmark on a quarterly basis.

3. Investment Manager Benchmarks

Each Manager is evaluated relative to an Investment Manager Benchmark composed of a market index plus an active management premium reflecting the Manager's particular style or tactical role in TRS' investment program. Each Investment Manager Benchmark will be clearly specified, measurable, and, for liquid securities, investable. Benchmarks may be customized for a particular style or styles. The appropriate Investment Manager Benchmark and expected active management premium shall be determined in advance of funding by mutual agreement between the Manager, the OTC and the Consultant.

4. Peer Group Analysis

The Board reviews the performance of the Fund relative to a peer group of other major public pension funds on a quarterly basis. However, due to differences in asset allocation, time horizon, and risk tolerance between public pension funds, comparisons of Fund performance to the AIR assumption and Policy Benchmark are the primary evaluation methods used by the Board.

B. Investment Information

The Board monitors the performance of the Fund and of individual Managers through ongoing monthly and quarterly reviews of performance, market developments, and Manager reviews. The Board uses two primary reports to monitor investment information, the quarterly performance report and the monthly flash report. In addition, the Board may monitor individual Managers through the Watch List. The OTC and the Consultant also report to the Board periodically on issues identified by the OTC, the Consultant, or the Board as requiring additional review.

On a quarterly basis, the Board reviews a performance report that includes a commentary prepared by the Consultant summarizing portfolio developments and performance. The quarterly performance report also provides detailed quantitative information regarding the risk and performance of Fund assets. Performance is evaluated relative to appropriate market benchmarks, peer comparison universes, and a variety of relevant time periods.

In addition, the Board reviews a flash performance report at each investment meeting. The flash performance report includes asset class and policy benchmark returns for the prior fiscal year and estimated fiscal year-to-date returns.

Managers provide daily and monthly reports regarding portfolio holdings and transactions to the OTC. Managers also complete a detailed quarterly questionnaire regarding portfolio holdings and organizational developments. Responses to the questionnaire are reviewed by the Consultant and the OTC. Material developments affecting the Fund are reported to the Board.

C. Manager Watch List

The Board monitors the performance of its Managers on an ongoing basis, through its quarterly reporting process. In general, Manager performance is evaluated over a full investment cycle.

The Board may terminate a Manager at any time. The Board or the OTC may place a Manager on the watch list. When a Manager is placed on the watch list, the Board and the OTC will specify the reasons for its decision. After the OTC places a Manager on the watch list, the OTC will notify the Board. The OTC and the Board's General Consultant will report regularly to the Board on the Manager's progress toward resolving the issue(s) resulting in placement on the watch list. After the Manager is placed on the watch list, the Board will, typically within one year, either conclude that the issue(s) have been resolved, or terminate the Manager.

The OTC and the Board may take both qualitative and quantitative factors into account in considering whether to place a Manager on the watch list or whether to terminate a Manager. Examples of qualitative factors include concerns regarding personnel, organizational changes, and ethical, legal or regulatory issues. Examples of

quantitative factors are lagging performance or indicators that the investment mandate is not being implemented.

1. Watch List Guidelines - Qualitative Factors

The table below sets forth some of the *qualitative* factors that the Board may consider in determining whether to place a Manager on the watch list or to terminate a Manager.

FACTOR	EVALUATION TECHNIQUE	ACTION STEPS
Changes in ownership	Require immediate notification of any pending changes in ownership.	Assess risk that change may negatively affect investment performance.
Turnover of key personnel	Require immediate notification of any changes in personnel involved in the management of the System's assets, or the senior officers of the Manager.	Assess risk that change may negatively affect investment performance.
Litigation	Require immediate notification if the Manager, a parent, or affiliate is involved in any material litigation, regulatory or enforcement action.	Evaluate nature, seriousness and likely impact of charges on the investment process and take appropriate action.
Conflicts of interest	Require Manager to provide immediate written disclosure.	Review to determine if conflict was material and should have been known by Manager and reported to the Board.
Failure to disclose material information which could affect Manager evaluation	Require Manager to provide immediate written disclosure.	Review information to determine materiality and reasons for failure to disclose.

2. Watch List Guidelines - Quantitative Factors

Managers are expected to exceed their Investment Manager Benchmark (which is composed of a market index plus an active management premium) net of fees over rolling five-year periods. Investment performance is measured on a quarterly basis. Failure to outperform or, in the case of index Managers, to match the market index over time will typically result in placement on the watch list or in the Manager's termination. Failure to outperform the Investment Manager Benchmark (net of fees) may result in placement on the watch list after consideration of tracking error, information ratio, and other quantitative and qualitative factors.

Managers are expected to maintain their stated investment style and philosophy. Quantitative measures of investment style and philosophy include style mapping, style attribution analysis, and tracking error relative to a benchmark. The Consultant monitors these factors on a periodic basis and advises the OTC of potential deviations. Indications that a Manager is not maintaining its investment style and philosophy will typically result in the Board placing the Manager on the watch list. The OTC and the Consultant will then present to the Board an evaluation of the Manager's consistency with the Board's asset allocation policy and the Manager's stated investment approach.

Section XII. RISK MANAGEMENT

The Trustees recognize the inevitability of the assumption of risk in the management of the Fund's portfolio. The issue of risk is considered at many levels of the investment decision and implementation process. Risk will be analyzed during the asset allocation strategy and decision making phase, through the application of various approaches such as risk budgeting, value at risk, volatility and tracking error. The portfolio is diversified across both the public and private capital markets in order to achieve the optimal balance of risk and return among asset classes. During the implementation phase of the asset allocation strategy, risk issues will be addressed as part of the manager selection process. In addition, Managers will be required to have internal controls and risk management systems appropriate to their investment disciplines. Managers selected by the Board shall provide information adequate in quantity, quality and timeliness to permit the OTC, the Custodian, and the Consultant to monitor and report to the Trustees on risk and compliance.

Section XIII. PORTFOLIO TRANSITIONS

Transition management is an integral part of portfolio management. When the Board terminates a Manager and re-allocates assets to another Manager, or funds a new mandate, the portfolio must be transitioned. The OTC selects and works with transition Managers to implement each transition.

Transitions are to be completed in a cost-efficient manner given the characteristics of the portfolios and market conditions. Cost-efficiency for equity portfolio transitions is measured by an analysis of total implementation shortfall. The OTC presents a post-trade analysis of the transition to the Board upon completion.

Section XIV. SECURITIES LENDING

The Board has authorized the Comptroller to enter into agreements establishing participation in securities lending programs. Securities lending enables the Fund to use its asset base to augment investment income. It involves the temporary exchange of securities owned by the Fund for other securities or cash of a greater value, with an obligation of the borrower to pay a fee to the Fund, and to return a like quantity of the

borrowed securities at a future date. The fee paid by the borrower is agreed in advance, while the Fund has contractual rights similar to those it would have as the beneficial owner of the securities except that the Fund does not retain voting rights on loaned equity securities.

The objective of securities lending is to earn income through a conservatively operated and well controlled program. There is no absolute return expectation; rather, income is expected to be commensurate with the market demand for the securities made available by the Fund and the return earned on the investment of cash collateral. Cash collateral received will be invested in a high-quality investment program that emphasizes the return of principal, maintains required daily liquidity, and ensures diversification across approved investment types. Those objectives are pursued within the parameters governing the program as outlined in the securities lending agreements with agent banks. Each agent bank is required to act as a fiduciary with respect to TRS and the Fund, and to have systemic and procedural controls in place to ensure adherence to guidelines for operating the securities lending program on behalf of the Fund. The results of the securities lending program are reported to the Board on a regular basis.

Section XV. SECURITIES LITIGATION PROTOCOL

TRS' objectives in choosing to take an active role in securities litigation include the following:

- Preservation of Fund assets and collection of all amounts due to TRS;
- Maximizing the net recovery to the class; and
- Effecting corporate governance reforms, when appropriate.

TRS will use the process outlined in the Securities Litigation Protocol, (set forth in Appendix 1, Section 12), in evaluating and acting on any situation in which securities litigation may be appropriate.

Section XVI. INVESTMENT EXPENSES

It is the policy of the Board that expenses such as consultants' and investment advisors' fees, attorneys' fees and costs, funding for Personal and Other Than Personal Services resources for the OTC and other costs that may necessarily be incurred in acquiring, managing and protecting the Fund's investments may be paid from any income, interest or dividends derived from the Fund's deposits or investments. The Board adopts a budget for the incurrence of consultants' and investment advisors' fees, attorneys' fees and other costs. OTC reviews the expenses and costs and arranges for their payment by the custodian bank. Pursuant to a budget, the Board also funds the expenditures of

additional resources of Personal Services and Other Than Personal Services for the OTC, which will report at least annually to the Board regarding the additional resources.

Section XVII. PROXY VOTING POLICY AND SHAREHOLDER INITIATIVES

The duty of pension fund fiduciaries to exercise the voting rights attached to the shares of stock owned by their funds has long been established. In the early 1980s, top officials of the Labor Department's Pension and Welfare Benefits Administration (PWBA) (renamed Employee Benefits Security Administration (EBSA), which enforces fiduciary standards for plan sponsors and Managers, repeatedly stated that the right to vote shares owned by a pension plan is, in itself, an asset of the plan, and, therefore, the fiduciary's responsibility to manage the assets includes voting proxies on issues that may affect the value of the shares.

While official pronouncements and guidance on proxy voting rights primarily have been directed to the private sector institutions which have established Plans governed by Employee Retirement Income Security Act of 1974 (ERISA), or to the mutual funds industry, many public pension funds, religious and tax-exempt institutions have followed this guidance. Many private and public pension funds have established proxy committees and guidelines for voting their proxies, and exercise their voting rights in accordance with these policies and guidelines.

This general acceptance of the proxy vote as a plan asset is the primary basis on which TRS established a Proxy Subcommittee. The Subcommittee promulgates proxy voting policies and procedures, and oversees TRS' sponsorship of shareholder proposals to improve corporate governance and corporate social responsibility of companies in which TRS invests. The Proxy Subcommittee seeks to ensure that companies follow sustainable business practices, which advance their long-term economic value.

The Proxy Subcommittee is composed of members of the Board and their operations are described in Appendix 1, Section 13.

Section XVIII. ETHICS AND COMPLIANCE POLICY

In furthering the Board's fiduciary duty to manage and invest the assets of the System, the Board of Trustees has adopted an Ethics and Compliance Policy (the Ethics Policy) establishing a comprehensive set of written requirements for the investment consultants (Consultants) and investment managers (Managers) who do or seek to do business with the System.

In accordance with the Ethics Policy (appended hereto as Appendix 1, Section 14), the Consultants and Managers shall submit an Annual Compliance Statement to the OTC. Such statement shall include a Certification representing that the Ethics Policy was received and read, and that the Manager or Consultant is in full compliance therewith. It

shall also provide appropriate disclosures of real or potential conflicts, and/or of non-compliance with the law or with policies of the System or of the City of New York as they may apply to the Consultant or Manager.

To the extent OTC receives or obtains information indicating that the Consultant or Manager is substantially out of compliance with the Ethics Policy and/or substantially in violation of applicable law, OTC will report such information to the Board for whatever action the Board deems appropriate, which may include termination of the Consultant or Manager.

Section XIX. THE PRINCIPLES FOR RESPONSIBLE INVESTMENT

The Trustees, acknowledging a duty to act in the best long-term interest of TRS' beneficiaries, adopted the UNEP Principles for Responsible Investment. It is believed that environmental, social and corporate governance (ESG) issues can affect the performance of investment portfolios over time and that applying these Principles may better align TRS' investments with the broader interests of society.

As stated in those principles, it is the intent of the Trustees, where consistent with their fiduciary duties, to:

- Incorporate ESG issues into investment analysis and decision-making processes;
- Be active owners and incorporate ESG issues into ownership policies and practices;
- Seek appropriate disclosure on ESG issues by the entities in which TRS invests;
- Promote acceptance and implementation of the Principles within the investment industry;
- Work with other adopters of the Principles to enhance the effectiveness of their implementation; and
- Share information on our activities and progress towards implementation of the Principles.

A copy of the Principles is appended hereto as Appendix 1, Section 15.

Section XX. REVIEW AND MODIFICATION OF THE IPS

The TRS Board reserves the right to amend the IPS at any time it deems such amendment to be necessary or to comply with changes in Federal, State or City Laws or regulations as these changes may affect the investment of Fund assets. In any event, a review of this IPS shall be undertaken no less frequently than every three years.

The date and a summary description of amendments or modifications to the IPS are recorded below:

Date	Summary of Amendment or Modification
January 2008	The Board adopted a 1% allocation to Convertible Bonds from Core+ 5 Fixed Income.
June 2008	Board also adopted an allocation to Opportunistic Fixed Income: 5% of the Fixed Income portfolio.
June 2008; Oct. 2010; March 2012	Amendments to the US Equity sub-allocations and structure – including decisions on size and style mix, expansion of the Manager of Manager Program and changing its structure, etc.
February 2009	The Board approved the restructuring of the Core+ 5 Program.
October 2010	The Board adopted the ODCE Real Estate Index instead of the NPI as the Real Estate Program's Benchmark going forward.
October 2010	The Board approved an allocation to Emerging Markets Equities, along with a customized Benchmark for the Program: 5% of Total Equity.
February 2011	NYS Retirement Security Law was amended to increase the amount of assets that can be invested in real property; affecting the basket clause.
June 2011	Updated Asset Allocation to reflect new AA approved by the Board in June 2011 including the addition of certain other asset classes updating the Board's policy expectations in general and within asset classes.
June 2011	The Board adopted the Opportunistic FI IPS to implement the allocation to that asset class.
September 2011	The Board approved allowances for certain Managers to invest in Non-US securities in the REES Program.
October and December 2011, May 2013	Expanded Asset Allocation to update newly adopted rebalancing ranges for all asset classes, to update the cash balance limit for liquidity, and to update "parking places" for unfunded alternative asset classes. The Board also voted to update the "parking place" for Emerging Market Debt.
February 2012	The Actuary secured a legislative change to reduce the Actuarial Investment Rate from 8% to 7% (net of fees), subsequent to a resolution presented to the Board.
April 2012	New Proxy Voting Guidelines and additional methods for communicating with the Proxy Committee were adopted by the Committee.
June 2012	Adopted a sub-allocation to Leveraged Loans, as part of the previously adopted allocation to Enhanced Yield.
September	Board voted to restructure the Non-US Equity portfolio, and added a new

2012	allocation to Small Cap EAFE: 10% of the total EAFE Policy allocation.
October 2012	Adopted the updated Private Equity IPS which also changed the Benchmark premium over the Russell 3000 Index.
December 2012	Adopted the Real Assets IPS to include Real Estate and any other Real Asset investments, thus approving an allocation to Infrastructure. The new Real Assets IPS also added an active premium of 100 bps to the RE Benchmark (ODCE). Implementation of the new Infrastructure asset class to be determined.
February 2013	The Board adopted a resolution to prohibit investments in Gun Manufacturers, and to divest from all such investments within the Fund.
April 2013	The Board adopted a resolution to omit the requirement that evaluation counsel is not eligible to serve as litigation counsel in the same matter, thus amending the Securities Litigation Protocol.
June 2013	The Board approved the expansion of the ETI Public/Private Apartment Rehabilitation Program to include additional NYS Counties.

APPENDIX I - ASSET CLASS AND SPECIFIC POLICIES

1. U.S. Equities
2. International Equities – EAFE Markets
3. International Equities – Emerging Markets
 - A. Emerging Markets – General
 - B. Emerging Markets Policy Statement
4. U.S. Real Estate Equity Securities
5. Fixed Income – NYC Core +5 Program
6. Fixed Income – Enhanced Yield
7. Fixed Income – Leveraged Loans (Sub-sector of Enhanced Yield)
8. Fixed Income – TIPS
9. Fixed Income – Convertible Bonds
10. Fixed Income – Emerging Markets Debt
11. Alternative Investments Policies – Policy Listing and Approved Dates
12. Securities Litigation Protocol
13. Proxy Voting Policies and Procedures
14. Ethics and Compliance Policy
15. Principles of Responsible Investment

1. U.S. Equities

Definition and Purpose

U.S. Equity is defined as common and preferred stock of U.S. and foreign corporations, denominated in U.S. dollars and traded on a U.S. exchange. With a strategic policy weight of 31 %, U.S. Equity is the largest asset allocation of the Fund. At the total fund level it is the primary driver of risk and return for the Fund.

Philosophy and Strategy

The U.S. Equity portfolio is structured to capture exposure to the broad U.S. Equity market as represented by the Russell 3000 Index. The U.S. Equity portfolio is diversified across industries, economic sectors and other appropriate investment characteristics.

The Board primarily employs passive management (index funds) in market sectors that it views as efficient, such as large capitalization stocks. Index funds provide broadly diversified market exposure with controlled market risk and minimal cost. To the extent that active management is used in the large cap sector, the Fund uses enhanced index fund Managers.

The Board employs active Managers for a portion of its investments in less efficient sectors of the U.S. Equity Markets when the Board believes that Managers possess skill identifying companies that may be undervalued or have substantial growth potential that will enable them to capture excess returns relative to the sector benchmark, adjusted for risk and fees. These less efficient sectors would include small and mid cap equities.

Style Allocation:

The U.S. Equity portfolio, in aggregate, is managed in a style- and size-neutral basis.

Use of External Managers

The U.S. Equity Portfolio is implemented through the use of external Managers. Multiple Managers may be used for similar or identical mandates in order to reduce Manager-specific risk. Managers shall be banks, insurance companies, or investment management companies, or investment advisers as defined by the Registered Investment Advisers Act of 1940. Managers are selected in compliance with a competitive RFP process designed to identify Managers with demonstrated ability to implement defined mandates. Managers operate subject to a set of detailed investment guidelines developed by the OTC pursuant to the Board's mandate that outlines the Manager's individual investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities, benchmarks and performance objectives. Active Manager performance objectives are expressed as a positive out-

performance of their Benchmark, net of fees. Managers are monitored through the Watch List process.

Proxy Voting

The Board retains Proxy Voting rights, which are exercised by the OTC in accordance with the TRS Proxy Voting policy.

Asset Class Objectives:

The Board reviews Manager and portfolio performance quarterly. The total U.S. Equity portfolio is expected to marginally outperform the Russell 3000 Index Fund over a full market cycle. Individual Manager performance will be evaluated quarterly and annually in the short-term and over a full market cycle (typically 3-5 years).

Market Sector Allocations

The US Equity sub-allocations are periodically reviewed. The Table below reflects the Asset Allocation last approved by the Board in March 2012 at the sub-asset class level.

TRS⁷		
Style	Policy Target	Expected Active premium (Net)
Large Cap Active	4.00%	100 bp
<u>Large Cap Passive</u>	<u>96.00%</u>	<u>0 bp</u>
Large Cap Total	55.00%	
Mid Cap Active	4.00%	100 bp
<u>Mid Cap Passive</u>	<u>96.00%</u>	<u>0 bp</u>
Mid Cap Total	36.00%	
Small Cap Active	35.00%	200 bp
<u>Small Cap Passive</u>	<u>65.00%</u>	<u>0 bp</u>
Small Cap Total	9.00%	
Sub-total Active	6.80%	
<u>Sub-total Passive</u>	<u>93.20%</u>	
Total	100.00%	10 bp

⁷ The Board has adopted several sub-allocation changes to the US Equity Program over the years, including June 2008, October 2010 and March 2012.

Liquidity:

Managers are expected to be fully invested. Index funds are managed with cash levels below 1%. Active Managers are limited to a maximum of 5% cash for trading purposes. As necessary, the OTC may direct Managers to sell securities to fund benefit payments and other eligible System expenses, or as otherwise appropriate for rebalancing purposes.

2. International Equities – EAFE Markets

Definition and Purpose

Non-U.S. Equity is defined as common and preferred stock of foreign corporations domiciled in developed markets, denominated in foreign currency and traded on foreign exchanges.

Philosophy and Strategy

The Non-U.S. Equity portfolio is structured to capture exposure to the broad non-U.S. Equity market as represented by the MSCI EAFE (Europe, Australasia & Far East) Index. The Non- U.S. Equity portfolio is to be diversified across countries, industries, economic sectors and other appropriate investment characteristics.

Historically, over long periods of time Non-U.S. Equity Managers have outperformed the EAFE index adjusted for risk and fees. Therefore, the Board has allocated the portfolio to be split 90% active and 10% passive⁸ active Managers.

Also, In September 2012, the Board voted to add a Small Cap EAFE allocation to its portfolio, to represent 10% of the Non-US Equity allocation.

Style Allocation:

The Non-U.S. Equity portfolio, in the aggregate, is managed in a style-neutral basis. However, due to the structure of the EAFE index and active Managers' styles, the Fund has a large-cap bias.

Use of External Managers

The Non-U.S. Equity Portfolio is implemented through the use of external Managers. Managers shall be banks, insurance companies, investment management companies, or investment advisers as defined by the Registered Investment Advisers Act of 1940. Managers are selected in compliance with a competitive RFP process designed to

⁸ In September 2012, the Board voted to re-structure the Non-US Equity portfolio, including a specific allocation to Small Cap EAFE.

identify Managers with demonstrated ability to implement defined mandates. Managers operate subject to a set of detailed investment guidelines developed by the OTC pursuant to the Board's mandate. The guidelines outline the Managers' individual investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities, benchmarks and performance objectives. Managers are monitored through the Watch List process.

Proxy Voting

Proxies are voted by the Managers.

Asset Class Objectives:

The Board reviews portfolio performance quarterly. The total Non-U.S. Equity portfolio is expected to outperform the EAFE index by 200 basis points per year gross of fees over a full market cycle and the comparison universe is the top half of the TUCS Non-US equity managers. Individual Manager performance will be evaluated quarterly and annually in the short-term and over a full market cycle (typically 3-5 years).

Liquidity:

The Non-U.S. Equity portfolio is not a source of liquidity for the Fund, although benefits may be paid out of the portfolio as required. Managers are expected to be fully invested. Index funds are managed with cash levels below 1%. Active Managers are limited to a maximum of 7% cash for trading purposes. As necessary, the OTC may direct Managers to sell securities to fund benefit payments and certain other eligible system expenses, or as otherwise appropriate for rebalancing purposes.

Currency Hedging:

Managers are permitted to hedge a portion of their currency exposure. Hedging may only be used for defensive purposes and not as a form of leverage.

3. International Equities – Emerging Markets⁹

A. Emerging Markets - General

Definition and Purpose

Emerging Markets Equity securities are defined as common and preferred stock of foreign corporations domiciled in countries included in the MSCI Emerging Markets Free Index (gross) denominated in foreign currency and traded on foreign exchanges. It may also include emerging market American Depositary Receipts (ADRs) or Global

⁹ The Board approved an allocation to Emerging Markets Equities in October 2010.

Depository Receipts (GDRs) denominated in U.S. dollars.

Philosophy and Strategy

In making the decision to invest in Emerging Markets, the TRS Board of Trustees was guided by the principle that a well-diversified portfolio will, over time, add value to the portfolio while reducing overall portfolio risk. Emerging markets currently represent approximately 86% of the world's population and approximately 35% of its GDP. Over the long-term, these markets are expected to generate attractive returns and grow in importance in the world's economy. These returns, however, are expected to continue to be subject to greater volatility than in more mature economies.

The Emerging Markets Equity portfolio is structured to capture broad exposure to the high growth economies of developing countries. There are higher risk-adjusted expected returns and higher volatility (as measured by standard deviation) from this investment.

The Board has adopted an Investable Country policy. The policy is described below in the "Emerging Markets Policy Statement." The Emerging Markets policy provides for a screen of the universe of emerging markets in order to select countries with positive investment attributes, and requires Managers to individually justify investments in companies based in countries excluded by the screen.

Historically over long periods of time, Emerging Markets Equity Managers have outperformed the MSCI Emerging Equity Markets Free Index (gross) adjusted for risk and fees. The Board will look for exposure to emerging markets equities through both active and passive managers. Assets allocated to active management may be invested in custom passive index funds until appropriate active managers are selected and funded.

Style Allocation:

The Emerging Markets Equity portfolio, in the aggregate, is managed in a style-neutral basis.

Proxy Voting

Proxies are voted by the Managers. BAM monitors managers' proxy voting policies and guidelines at least annually and reviews proxy-voting reports quarterly.

Asset Class Objectives:

The total Emerging Markets Equity portfolio is expected to outperform an index of countries included in the investable universe under TRS Emerging Market policy index over a full market cycle. Individual Manager performance will be evaluated monthly,

quarterly and annually in the short-term and over a full Manager Market Cycle.

Sector Benchmarks

	Benchmark	Comparison Universe
Active	TRS Custom Emerging Markets Index	None

Liquidity:

The Emerging Markets Equity portfolio is not a source of liquidity for the Fund, although benefits may be paid out of the portfolio as required. Active Managers are limited to a maximum of 5% cash for trading purposes, while passive managers should maintain cash levels below 1%.

Currency Hedging:

Managers are permitted to hedge a portion of their currency exposure. Hedging may only be used for defensive purposes and not as a form of leverage.

B. Emerging Markets Policy Statement – Adopted October 2010

In October 2010, the Teachers Retirement Board (TRS) allocated a portion of the System's investments to emerging markets.

Emerging markets may lack the political, social and economic structures necessary for a stable investment environment. Many of these structures, such as legal protections, liquidity and transparency in the securities markets, democratic institutions, including an independent judiciary and a free press, as well as labor rights, worker health, safety, and environmental protections, are still being developed in many emerging market countries.

Accordingly, TRS' Board of Trustees has developed this Policy Statement to increase the likelihood that the System's emerging markets investments will generate added value while helping to reduce the higher levels of risk associated with this investment class.

Active Management

Emerging market countries may suffer from relatively weak democratic institutions, limits on the free flow of information, and political manipulation of financial markets. In addition, informed investment decisions in emerging markets require a significant level of research and monitoring. Therefore, TRS has concluded that it would be more effective and prudent to invest in emerging markets through active management

pursuant to this Policy Statement. Assets allocated to active management may be invested in custom passive index funds until appropriate active managers are selected and funded.

Therefore, the Board maintains a large allocation to passive management until such time as highly rated closed managers reopen, to allow for a higher allocation to active managers at that time.

Country Screens

TRS believes that a number of variables should be considered prior to an emerging market country being considered investable. Taken together, these variables would help to define the emerging market investable universe, and to set the parameters for investment in companies that operate in these countries.

The country variables should include:

- Market liquidity and volatility.
- Transparency.
- Market regulation.
- Investor protections/corporate governance.
- Investment restrictions.
- Political stability/rule of law/independent judiciary.
- Economic stability/wealth-income distribution.
- Settlement proficiency.
- Transaction costs.
- Existence and enforcement of worker health & safety protection, labor and environmental statutes/codes at the country level, including ILO Core Conventions.

The Board utilizes an outside Consultant to develop and implement a screening process to determine the investability of emerging market countries. The list of investable countries will be updated at least annually, and adopted by resolution of the Board. The most recent such resolution is attached to, and forms a part of, this Policy Statement.

Emerging Markets Equity Investment Managers shall only invest in countries determined to be investable pursuant to the rating system, unless the Manager, after

due diligence, concludes that substantial, overriding reasons exist for a particular investment. Before making an investment in any emerging market company, a Manager must document that the company being considered for investment implements reasonable health and safety, labor rights, and environmental standards and protections for its workers.

Proxy Voting and Shareholder Proposals

TRS has long been active as a shareholder pursuing a wide-range of initiatives on corporate governance and corporate responsibility. To the degree necessary and practicable, such activity should be continued and expanded as part of the Board's decision to invest in emerging markets. TRS therefore plans to strengthen its shareholder activity concerning U.S. corporations doing business in emerging markets countries. In particular, this shareholder activity should focus on the implementation of workplace health and safety, labor and environmental standards and protections.

4. U.S. Real Estate Equity Securities¹⁰

Definition and Purpose

The Real Estate Equity Securities (REES) program is dedicated to equity and convertible securities of U.S. real estate companies, defined as: (i) real estate investment trusts organized under the laws of any state of the United States ("REITS") or under the laws of a developed market non- U.S. country; (ii) entities organized under the laws of any state of the United States, province of Canada, or developed market non- U.S. country that, directly or indirectly, are self-managed operating companies (REOCs"), that at the time of purchase: (x) derive at least 50% of their revenue or profits from the ownership, construction, management, financing or sale of residential, commercial or industrial real estate, or (y) have at least 50% of the fair market of their assets invested in residential, commercial or industrial real estate.

The strategic policy weight for the REES program is 3%.

Philosophy and Strategy

The REES program is structured to capture exposure to the REIT and REOC markets as represented by the Dow Jones U.S. Select Real Estate Securities Index. The REES program is diversified across property types and sectors, geographical regions, and other appropriate investment characteristics. Additionally, equity securities of

¹⁰ The Board approved allowances for certain Managers to invest in Non-US securities in the REES Program in September 2011.

Developed market non-U.S. real estate companies may be purchased to a limited degree.

Historically over long periods of time, managers of real estate securities have outperformed the Dow Jones U.S. Select Real Estate Securities Index adjusted for risk and fees. Therefore, the Board has allocated the entire REES portfolio to active Managers.

Use of External Managers

The REES program is implemented through the use of external Managers. Managers shall be banks, insurance companies, or investment management companies, or investment advisers as defined by the Registered Investment Advisers Act of 1940. Managers are selected in compliance with a competitive RFP process designed to identify Managers with demonstrated ability to implement defined mandates. Managers operate subject to a set of detailed investment guidelines developed by the OTC pursuant to the Board's mandate. The guidelines outline the Manager's individual investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities, benchmarks and performance objectives. Managers are monitored through the Watch List process.

Proxy Voting

The Board retains proxy voting rights, which are exercised by OTC in accordance with the TRS proxy voting policy.

Asset Class Objectives

Trustees review manager and portfolio performance quarterly. The total REES program, net of fees, is expected to outperform the Dow Jones U.S. Select Real Estate Securities Index by 200 basis points per year gross of fees over a full market cycle. Individual manager performance will be evaluated quarterly, annually, and over a full market cycle (typically 3-5 years).

Liquidity

The REES program is generally not a source of liquidity for the Fund, although, benefits may be paid out of the portfolio as required. Managers are expected to be fully invested, and are limited to a maximum of 5% cash for trading purposes. As necessary, OTC may direct Managers to sell securities to fund benefit payments and certain other eligible system expenses, or as otherwise appropriate for rebalancing purposes.

5. Fixed Income: NYC Core +5 Program¹¹

Definition and Purpose

Fixed income securities are bonds and other debt securities such as mortgage-backed securities, most paying interest on a current basis. TRS' Fixed Income allocation consists of the Core + 5 Portfolio, the Enhanced Yield Portfolio— including an allocation to leveraged loans, the Convertibles Portfolio, the Emerging Markets Debt Portfolio, the Opportunistic Fixed Income Portfolio, the TIPS Portfolio, and the Fixed Income portion of the ETI Program. The Core +5 Program is the dominant TRS Fixed Income Program, the second largest investment program after U.S. Equity. It is a driver of return and diversification at the total fund level. While the explicit objective is total return, given the fundamental nature of fixed income – relatively predictable income and principal payouts – it also extends the duration of the total fund to better match liabilities, and may be used to provide cash for benefit payments if the portfolio is otherwise within rebalancing ranges.

Most of the securities of the Fixed Income Programs are registered in the U.S. 144A securities, Global bonds, and Eurodollar bonds may be permitted investments.

Philosophy and Strategy

The Core +5 Program is benchmarked to a customized version of the Citigroup U.S. Broad Investment Grade Index (the “BIG Index”), known as the NYC Core +5 Index. The NYC Core +5 index comprises sub-indices for three sectors: (1) U.S. Treasury and Agency issues excluding one to five-year maturities; (2) mortgage backed securities; and (3) Investment Grade Credit. The total allocation to each sector mirrors that sector's proportion of the custom NYC Core +5 Index, which is revised by Citigroup monthly to reflect market changes.

Concurrent with the implementation of the results of an RFP, the Investment Grade Credit Sector was created by combining the previously existing Corporate and Yankee sectors.

The Core + 5 Program is implemented through a sector specialist program, in which Managers are selected for mandates benchmarked to one of the sub-indices. Managers may employ index-like, enhanced index, or active approaches within their sector. Major characteristics of the three sectors are:

¹¹ The Board approved the restructuring of the Core +5 Fixed Income Program in February 2009, reducing the sub-indices from four sectors, among other changes.

- **U.S. Government:** Consists primarily of U.S. Treasury and Agency debt. Does not include mortgage-backed securities. Managers are permitted to invest in Supranationals to a very small degree. Securities of any maturity may be used, provided that the weighted average duration of the portfolio is within a range of –1.0 year and + 0.5 year of the Citigroup Core +5 Treasury/Government Sponsored Index, which includes only those securities with a maturity in excess of five years.
- **Mortgage-Backed Securities (MBS):** Consists primarily of Agency mortgage pass-throughs and Agency and non-agency securities collateralized by mortgage pass-throughs. Managers are permitted to invest in certain non-benchmark sectors and security types. Securities of any maturity may be used, provided that the weighted average duration of the portfolio is within 0.75 year of Citigroup's standard Mortgage Index, which includes GNMA, FNMA and FHLMC mortgage pass-throughs.
- **Investment Grade Credit:** U.S.-dollar denominated debt securities of domestic corporations and foreign and Supranational entities rated BBB- or higher. Managers are permitted to invest in certain non-benchmark securities to a limited degree, including 10% in high yield securities. Securities of any maturity may be used, provided that the weighted average duration of the portfolio is within +/- 0.5 years of the customized Citigroup Investment Grade Credit Index (which combines the former Domestic Corporate Index and Yankee Index), and includes industrial, utility, financial, asset-backed and credit-enhanced securities.

The Program is implemented through the use of external Managers. Managers are selected in compliance with a competitive RFP process designed to identify firms with demonstrated ability to implement defined mandates. Managers operate subject to a set of detailed investment guidelines developed by the OTC pursuant to the Board's mandate that outlines the Managers' individual investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities, benchmarks and performance objectives. Subject to constraints contained in guidelines issued by the OTC pursuant to Board mandates, value may be added through:

- Duration management, within stated constraints
- Sub-sector weights (within specified ranges of the benchmark weights)
- Security selection, including certain securities/issuers not specifically included in the benchmark

Managers are monitored through the Watch List process.

Asset Class Objectives:

The Board reviews Manager and portfolio performance quarterly. The total Core +5 Program is expected to outperform the custom index over a full market cycle, as indicated below. Individual Manager performance expectations vary, as each employs a distinct approach that may be categorized as index-like, enhanced index or active.

Each Manager will be evaluated quarterly, annually and over a full market cycle (typically 3-5 years).

Market Sector Allocations

Core + 5 Program	Percent of Program (as of 6/30/13)	Expected Active Return (gross)
Government +5	18.63%	
Mortgage-backed	40.04%	
Investment Grade Credit	41.33%	
Total Core +5	100.00%	20 bp

Market sector allocations are adjusted monthly by the benchmark provider, Citigroup, to reflect market weight. The Fund policy is to be neutral to the benchmark/market.

Liquidity and Cash Management:

As a fixed income alternative, cash equivalents (or “*short-term fixed income*”) are integral to managing risk in fixed income portfolios duration. Fixed Income Managers, unlike the Equity Managers, are given wider latitude to use cash equivalents. Government Sector Managers have no explicit limits on cash; however the relatively long duration requirements for this sector indirectly limit the Managers’ use of cash equivalents. Corporate and Yankee Sector Managers are allowed to invest up to 10% in cash. MBS Sector Managers are also allowed to invest up to 10% in cash; however, they may hold significantly more cash to back a widely used MBS instrument (“TBA”). These large cash balances, nonetheless, are not considered an immediate source of liquidity. As necessary, the OTC may direct Managers to sell securities to fund benefit payments and certain other eligible System expenses, or as otherwise appropriate for rebalancing purposes.

6. Fixed Income: Enhanced Yield Program (includes Leveraged Loans sub-sector)¹²

Definition and Purpose

¹² In June 2012, the Board voted to adopt a sub-allocation to Leveraged Loans and adopted appropriate IPS language for the new Program.

Fixed income is defined as bonds and other debt securities, most paying interest on a current basis. While most securities are registered in the U.S., the NYC Fixed Income Programs allow for use of 144 A securities, Global bonds, and Eurodollar bonds. In the Enhanced Yield Program (traditionally referred to as “high yield,” or “non-investment grade”), most securities are denominated in \$U.S, while a small allocation is permitted for \$Canada-denominated issues. Additionally, deferred-interest securities that do not pay interest on a current basis (such as zero-coupon bonds) are permitted. The high yield sector has equity-like features, including convertible securities, preferred stocks, and warrants. Common stock may appear in traditional high yield portfolios as a result of debt restructuring. The characteristics of the high yield sector may be viewed as a cross between traditional bonds and stocks. The objective of the Enhanced Yield Program is total return.

Within the overall Enhanced Yield program, the Leveraged Loans program (also known as “Bank Loans”) has been established as a sub-sector and is designed to invest up to one-third of total Enhanced Yield as described in the Asset Allocation section.

Philosophy and Strategy

The Enhanced Yield Program employs a variety of external Managers with active management approaches. The Program benchmark and the benchmark for most of TRS’ Managers is the Citigroup (formerly Salomon Smith Barney) BB & B Index. It is a subset of the widely-used Citigroup High Yield Index and excludes securities with ratings of only CCC or lower. The index includes only securities of U.S. and Canadian corporations. As appropriate, an individual Manager’s benchmark may be different from the Program benchmark, depending on the Manager’s investment approach.

Managers are selected in compliance with a competitive RFP process designed to identify firms with demonstrated ability to implement defined mandates. Managers operate subject to a set of detailed investment guidelines developed by the OTC pursuant to the Board’s mandate that outlines the Managers’ individual investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities, benchmarks and performance objectives.

Subject to guideline limitations (which may vary modestly by Manager due to stylistic differences), value may be added through:

- Industry / sector allocation
- Quality sector allocation
- Security selection, including certain securities/issuers not specifically included in the benchmark, such as convertibles and investment-grade

- However; direct purchase of defaulted securities and securities of bankrupt companies are explicitly prohibited.
- Cash equivalents may be used on a limited basis
- Duration decisions are not expected to be a notable contributor to performance

Managers are monitored through the Watch List process.

Asset Class Objectives:

The Board reviews portfolio performance quarterly. The total Program is expected to outperform the Citigroup BB& B Index over a full market cycle, and the expected active return is 125 basis points. Individual Manager performance expectations vary, as each employs a distinct approach. Each Manager will be evaluated quarterly, annually and over a full market cycle (typically 3-5 years).

Liquidity and Cash Management:

The Enhanced Yield Program is not a source of liquidity for the Fund, although, benefits may be paid out of the portfolio as required. Typically, cash equivalents are integral to managing the interest rate risk in fixed income portfolios. However, for high yield, interest rate risk is less of a consideration than for investment-grade bond portfolios like those in TRS' main Core + 5 Program. Nevertheless, as the high yield asset class is heavily dependent on new security issuance and may be characterized by extended periods of relative illiquidity (as compared to the U.S. equity market), the Enhanced Yield Managers have been given more latitude to hold cash – the maximum is 8%. As necessary, the OTC may direct Managers to sell securities to fund benefit payments and certain other eligible System expenses, or as otherwise appropriate for rebalancing purposes.

7. Fixed Income: Leveraged Loans¹³

Definition and Purpose

Fixed income is defined as bonds and other debt securities, most paying interest on a current basis. While most securities are registered in the U.S., the NYC Fixed Income Programs allow for use of 144 A securities, Global bonds, Eurodollar bonds and Leveraged Loans. In the Leveraged Loans Program (also referred to as “Bank Loans”), most securities are denominated in \$US. Common stock may appear in traditional

¹³ In June 2012, the Board voted to adopt a sub-allocation to Leveraged Loans and adopted appropriate IPS language for the new Program.

Leveraged Loans portfolios as a result of debt restructuring. The characteristics of the Leveraged Loans sector may be viewed as a cross between Core +5 and High Yield and securities are typically non-investment grade and senior debt obligations in an entity's capital structure. Typically, Leveraged Loans are floating rate debt obligations. The objective of the Leveraged Loans Program is total return.

Philosophy and Strategy

The Leveraged Loans Program employs a variety of external Managers with active management approaches. The Program benchmark is the Credit Suisse Leveraged Loans Index, which includes mostly BB, B, CCC and non-rated securities. The index includes only securities denominated in US dollars. As appropriate, an individual Manager's benchmark may be different from the Program benchmark, depending on the Manager's investment approach which could include securities denominated in currencies other than the US dollar.

Managers are selected in compliance with a competitive RFP or search process designed to identify firms with demonstrated ability to implement defined mandates. Managers operate subject to a set of detailed investment guidelines developed by the Comptroller's Bureau of Asset Management pursuant to the Board's mandate that outlines the Managers' individual investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities, benchmarks and performance objectives.

Subject to guideline limitations (which may vary modestly by Manager due to stylistic differences), value may be added through:

- Industry / sector allocation
- Quality sector allocation
- Security selection, including certain securities/issuers not specifically included in the benchmark
- Direct purchase of defaulted securities and securities of bankrupt companies is generally prohibited
- Cash equivalents may be used
- Duration decisions are not expected to be a notable contributor to performance

Managers are monitored through the Watch List process.

Asset Class Objectives

At a minimum, Trustees review portfolio performance quarterly. The total Program is expected to outperform the Credit Suisse Leveraged Loan Index over a full market cycle by a minimum 100 basis points (gross). Individual Manager performance expectations vary, as each employs a distinct approach. Each Manager will be evaluated quarterly, annually and over a full market cycle (typically 3-5 years).

Liquidity and Cash Management

The Leveraged Loans Program is generally not a source of liquidity for the Fund, although, benefits may be paid out of the portfolio as required. Typically, cash equivalents are integral to managing the interest rate risk in fixed income portfolios. However, for Leveraged Loans, interest rate risk is less of a consideration than for investment-grade bond portfolios like those in NYCRS' main Core + 5 Program due to the floating rate nature of most of the securities. Nevertheless, as the Leveraged Loans asset class is heavily dependent on new security issuance and may be characterized by extended periods of relative illiquidity (as compared to the U.S. equity market), the Leveraged Loans Managers have been given more latitude to hold cash. As necessary, BAM may direct Managers to sell securities to fund benefit payments and certain other eligible System expenses, or as otherwise appropriate for rebalancing purposes.

8. Fixed Income: U.S. TIPS Program

Definition and Purpose

Fixed income is defined as bonds and other debt securities, most paying interest on a current basis. In the U.S. TIPS Program, U.S. Treasury Inflation-Protected Securities will be the predominant holding, and most other securities will also be denominated in \$U.S. Limited use of inflation linked bonds (ILBs) of foreign developed-market sovereigns will be permitted. The U.S. TIPS Program's primary purpose is to hedge inflation (as measured by the CPI - U) and, secondarily, to provide diversification.

Philosophy and Strategy

The U.S. TIPS Program will be managed using a combination of index and active management approaches. The policy mix is 25% passive/75% active. The Program and individual Managers' benchmark is the Barclays Capital¹⁴ U.S. Inflation-Linked Index, which is comprised of all outstanding TIPS of the U.S. Treasury.

The Program will be implemented through the use of external Managers. Managers are selected in compliance with a competitive RFP process designed to identify firms with demonstrated ability to implement defined mandates. Managers operate subject to a set of detailed investment guidelines developed by the OTC pursuant to the Board's mandate that outlines the Managers' individual investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities, benchmarks and performance objectives. The portfolio of the passive (or index) Manager will mirror the benchmark index with minimal tracking error; value may be added through trading strategies. Subject to constraints contained in guidelines issued by the Comptroller, which may change over time, the active Managers may add value through:

¹⁴ Barclays Capital has taken over the Lehman Indices after Lehman Brothers went out of business.

- Duration and yield curve management
- Individual U.S. TIPS weightings that vary from the benchmark
- Use of nominal U.S. Treasury and inflation-indexed U.S. Agency securities
- Use of inflation linked bonds (ILBs) of foreign developed-market sovereigns, however the position must be hedged back to \$U.S. Foreign inflation linked corporate and agency bonds are not permitted.
- Cash equivalents may be used on a limited basis

Managers will be monitored through the Watch List process.

Asset Class Objectives

The Board reviews portfolio performance quarterly. The total U.S. TIPS Program is expected to exceed the inflation rate and to outperform the Barclays Capital U.S. Inflation-Linked Index over a full market cycle, as indicated below. Individual Manager performance expectations vary, as each employs a distinct approach that may be categorized as index or active. Each Manager will be evaluated quarterly, annually and over a full market cycle (typically 3-5 years).

Market Sector Allocations

U.S. TIPS Program	Percent of Program	Expected Active Return (gross)
Active Managers	75%	
Passive (Indexed) Managers	25%	
Total U.S. TIPS Program	100%	55 bp

Liquidity and Cash Management:

The U.S. TIPS Program is not a source of liquidity for the Fund, although, benefits may be paid out of the portfolio as required. As a fixed income alternative, cash equivalents are integral to managing risk in fixed income portfolios through portfolio duration. Active Fixed Income Managers, unlike Equity Managers, are given wider latitude to use cash equivalents. The U.S. TIPS Index Manager will be permitted to hold up to 2% cash and the active Managers, up to 20%.

9. Fixed Income: Convertible Bonds¹⁵

Definition and Purpose

A convertible bond has the characteristics of two types of securities: a bond and an equity option. Convertible bonds are issued by publicly held companies and come in a variety of forms. At the simplest level, they combine a corporate bond paying a fixed interest rate with an equity warrant (a long term equity call option) on the issuer's common stock. The bonds are senior to equity in a company's capital structure. The allocation of the Fund to this sub-asset class is 3% of the value of the total Fund.

Convertible bonds have higher expected returns and higher risk than conventional corporate bonds. The link to equity volatility through the equity option adds an extra return driver that is not available from a portfolio of stocks and bonds alone. The convertible bond market can be relatively inefficient and therefore provides opportunities for total return oriented investors such as the Fund. The primary purpose of the program is to provide a higher total return than the corporate bond market with less volatility than the equity market, in addition to providing diversification.

Philosophy and Strategy

The Convertible Bond Program employs a variety of external Managers with active management approaches. The Program benchmark is the Bank of America Merrill Lynch All U.S. Convertibles ex-Mandatory Index. As appropriate, an individual Manager's benchmark may be different from the Program benchmark, depending on the Manager's investment approach.

Subject to guideline limitations (which may vary modestly by Manager due to stylistic differences), value may be added through:

- Industry / sector allocation
- Quality sector allocation
- Security selection, including certain securities/issuers not specifically included in the benchmark

Cash equivalents may be used on a limited basis. Duration decisions are not expected to be a notable contributor to performance.

Asset Class Objectives:

¹⁵ The Board adopted a 1% allocation to Convertible Bonds in January 2008, and subsequently increased it in the Asset Allocation study.

Trustees review portfolio performance at least quarterly. The total Program is expected to outperform the Bank of America Merrill Lynch All U.S. Convertibles ex-Mandatory Index over a full market cycle. Individual Manager performance expectations vary, as each employs a distinct approach. Each Manager will be evaluated quarterly, annually and over a full Manager Market Cycle.

Liquidity and Cash Management:

The Convertible Bond Program is not typically a source of liquidity for the Fund, although, benefits may be paid out of the portfolio as required. Typically, cash equivalents are integral to managing the interest rate risk in fixed income portfolios. However, for convertibles, interest rate risk is less of a consideration than for investment-grade bond portfolios like those in the Fund's main Core + 5 Program. Nevertheless, as the asset class is heavily dependent on new security issuance and may be characterized by extended periods of relative illiquidity (as compared to the U.S. equity market), the Convertible Bond Managers have been given more latitude to hold cash – the maximum is 5%.

10. Fixed Income – Emerging Markets Debt¹⁶

Definition and Purpose

As part of the recently adopted asset allocation, The TRS adopted an allocation to emerging market debt as part of the Fixed Income allocation. As the asset class is currently being created, there are no specific details – as with the other asset classes included herein.

11. Alternative Investments Policies:

PRIVATE EQUITY INVESTMENTS POLICY; ADOPTED OCTOBER 4, 2012. SEE APPENDIX #3 FOR THE POLICY

REAL ASSETS EQUITY INVESTMENTS POLICY; ADOPTED DECEMBER 6, 2012. SEE APPENDIX #4 FOR THE POLICY

ECONOMICALLY TARGETED INVESTMENTS POLICY; ADOPTED NOVEMBER 6, 2008. SEE APPENDIX #5 FOR THE POLICY

OPPORTUNISTIC FIXED INCOME INVESTMENTS POLICY; ADOPTED JUNE 2, 2011. SEE APPENDIX #6 FOR THE POLICY

¹⁶ As part of the Board's asset allocation decision in June 2011, the Board adopted a new allocation to this asset class.

12. Securities Litigation Protocol

Overview

Corporate fraud and other misdeeds that have resulted in significant losses to shareholders have underscored the need for an internal set of policies and procedures to guide the New York City Pension and Related Funds ('the Funds'), including the New York City Teachers' Retirement System ('TRS'), in identifying, evaluating and ultimately managing securities litigation. The Funds are increasingly being presented with potential cases by the class action bar and a set of established procedures will help facilitate the Funds' decision-making process and ensure that the Funds are pursuing active involvement in cases when it is in their best interests to do so. Across the country, pension funds have started clearly identifying their objectives in pursuing actions and are becoming more proactive in identifying these claims themselves and reducing their reliance on the class action bar. They are also looking at other ways to participate actively in securities class actions. In addition, many pension funds are employing a two-tiered approach to their use of counsel; *i.e.*, they are expanding their counsel pool and are engaging counsel to help in the evaluation of claims. Thereafter, they engage separate counsel to represent them in the litigation, if they decide to proceed. This process provides additional resources and expertise in the evaluation process while ensuring that the resulting recommendations are as unbiased as possible.

Objectives

TRS' objectives in choosing an active role in securities litigation include the following:

- Preservation of plan assets and collection of all amounts due to TRS;
- Maximizing the net recovery to the class; and
- Effecting corporate governance reforms, when appropriate.

Out of the enormous volume of securities cases being filed, the Funds will consider those where the amount of loss sustained by the Funds and attributable to some type of wrongdoing is of a magnitude to justify the time, expense and effort involved in being lead plaintiff in a class action or in filing an independent action either in state or federal court or in pursuing some other litigation alternative. The Law Department as the Funds' legal representative and the OTC as its Investment Advisor will work together in the best interests of the Funds to recommend those cases best suited for the Funds' active participation.

Identification of Potential Cases

The first step in this process is to identify those cases or claims that would warrant the Funds' active involvement in securities litigation. Early identification of potential cases will allow the Law Department and the OTC more time to analyze the case and recommend strategies, and allow the Funds more time to respond to any such joint recommendations. To meet this goal, the Funds will engage outside data Consultants. Consultants can better monitor new case filings, follow the financial news as well as the activities of government agencies such as the SEC. Consultants will also interface directly with the custodial banks for the Funds in order to compute loss estimates. The Consultant should be able to provide the Law Department and the OTC with loss estimates for each Fund within days of a federal securities class action being filed, early enough in the 60-day statutory time period for filing a lead plaintiff motion to allow for careful analysis of potential cases by the Law Department and the OTC and a thoughtful consideration of any joint recommendations from the Law Department and the OTC by TRS and the other Funds.

Review and Analysis of Potential Cases

A two-tiered approach, involving Evaluation Counsel and Litigation Counsel, will be used to expedite the review and analysis of potential cases. After a reasonable time period, this approach will be evaluated and, if necessary, modified.

A. *Evaluation Team*

A pool of securities litigation law firms shall be maintained. Two or more pool members shall serve as an evaluation team on a rotating basis ('Evaluation Team'). Evaluation Team members are not precluded from serving as Litigation Counsel on any matter they have evaluated.¹⁷

Utilizing a Consultant's services as described in Section III of this Protocol, the OTC will forward to the Law Department information on any case filed that satisfies the minimum loss requirement, a monetary threshold to be established by consent by the Funds. The Evaluation Team, in conjunction with the Law Department and the OTC, will review cases given to them by the Law Department and evaluate potential securities litigation claims, advising the Law Department on ways to best protect the interests of the Funds. The Evaluation Team will also perform additional due diligence on claims (*i.e.*, contact counsel for both sides; review complaints, SEC filings and company disclosures; examine contents of relevant internal files, interview investment staff, and contact other investors as appropriate).

Each Evaluation Team law firm for a particular case will provide the Law Department with a written evaluation of that case including an opinion as to what, if any, action

¹⁷ In April 2013, the Board adopted a resolution to omit the requirement that evaluation counsel is not eligible to serve as litigation counsel in the same matter.

would be in the best interests of the Funds and why. The memorandum will evaluate options available to protect the Funds' interests. Options may include doing nothing, filing for lead plaintiff status or actively participating in ways other than becoming lead plaintiff.

These other types of active participation include attempting to get a claimant with larger losses to become lead plaintiff; monitoring the case from the sidelines; writing a letter to the court and/or lead counsel to bring up issues being ignored; filing a motion to support or oppose a particular lead plaintiff or lead counsel candidate; filing a notice of appearance and more actively monitoring the case; attempting to negotiate an agreement with prospective lead counsel that will require them to keep the Funds informed of case developments, provide the Funds with access to discovery upon request and allow the Funds to participate in settlement negotiations or be consulted on a settlement; waiting until settlement and reviewing the settlement carefully with the option to object to a poor settlement or excessive fees; opting out of the class to file a separate action; or bringing a derivative action. The memorandum should also discuss the most advantageous means of bringing a suit; *i.e.*, individual federal action or federal class action; state law individual action; or derivative action.

B. Joint Recommendation to the Funds from the Law Department and the Comptroller's Office.

The Law Department will consult with each Evaluation Team member and will fully analyze all relevant legal issues. The Law Department, in conjunction with the OTC, might consider, among other things, the following in issuing a recommendation to the Trustees:

- What was the alleged wrongdoing? What are the legal claims?
- What is the degree to which the wrongdoing has a market impact or raises issues of corporate governance?
- What is the amount of TRS' loss and the other System's losses collectively?
- What are the defenses? What are the merits of the case? Are the Systems likely to prevail?
- Are the losses collectible? What is the defendant's financial condition? Are insurance carriers involved? How many defendants will there be?
- Will there be other consequences if the Systems win or lose? For instance, will success bankrupt the company or adversely affect other investments that the Systems have in the same company?

- Are there others who are more appropriate to serve as lead plaintiff? (In which case, the Systems may defer to them or seek to join them as co-lead plaintiff.)
- What economic and administrative costs will be involved? (Typically, all out-of-pocket costs should be advanced by Litigation Counsel who accepts the case on a contingency basis. However, some law firms prefer that out-of-pocket costs are advanced by the client.)
- Does TRS have a separate claim that is not covered by the class complaint or are there unusual facts that suggest a benefit to independent non-class litigation?
- Would failure in the litigation adversely affect TRS? For example, might the litigation result in the disclosure, subject to a protective order, of material non-public information about the company that could interfere with TRS' future anticipated trading strategy? Are there other possible adverse consequences?
- Do the Systems have time to interact with legal counsel and make decisions as required?
- Should TRS and the other Systems consider seeking to serve as co-lead plaintiff with other parties?
- Is the suit a nuisance suit? Should TRS consider supporting the company in a motion to dismiss?
- Are there any potential conflicts with other members of the class?
- Is there a need for corporate governance changes? Are there individual actors that need to be pursued to deter future wrongdoing?

The Law Department, in conjunction with the OTC, will then make a written recommendation to TRS and the other Systems to pursue a particular case in which active participation would be in the Systems' best interest. If time permits, such a recommendation would be presented in person by representatives of both the Law Department and the OTC who would be available to answer questions the Trustees may have. Because of the statutory deadlines involved in this type of litigation, a representative from each System will be appointed to attend one meeting where the joint recommendation can be presented. This approach will only be used when time limitations require it.

C. Litigation Counsel

Litigation Counsel will be selected after the Systems have made a decision to pursue an active role in litigation. The panel of law firms available to be assigned cases will be expanded through a competitive process. Each firm selected must have a recognized expertise in the area of securities litigation. Special attention will be paid to experience in class actions, especially under the PSLRA, experience as counsel to other institutional investors (preferably other public pension funds), a demonstrated understanding of the special responsibilities of a public fund trustee and how public employees' retirement systems function as well as experience with corporate governance reforms.

Litigation Counsel will be selected by the Law Department based on, among other things, suitability for a particular matter (including, for example, their expertise in the jurisdiction in which a case is being brought and expertise in the particular type of suit. For each case approved by the Systems, the Law Department will invite pool members, including those who served¹⁸ as members of the Evaluation Team for that case, to submit written proposals for handling the litigation. The proposal will focus on the litigation factors discussed in Section IV, B of this Protocol and propose the most appropriate strategy for the conduct of the litigation. The proposal will also include a fee schedule. Selection of counsel for any given case will be based on an evaluation of the litigation strategy proposed, the suggested fee and the expertise and resources of the firm. Thus increasing the size of the panel will also increase competition regarding the fee to be charged against any recovery by the Funds, and, in PSLRA cases, the recovery of other class members.

Interaction with the Systems

The Law Department will also issue a monthly report to the Systems, which will include significant potential cases being evaluated as well as the status of pending securities litigation. The Systems will make the final determinations on whether to proceed or not with a particular securities law case. In the event that there is disagreement amongst the Systems with regard to a particular course of action, the Systems may wish to consider acting independently. The advisability of such independent action would have to be examined on a case by case basis.

TRS Counsel shall serve as liaison between the Board and the Law Department in order to keep the Board advised on securities litigation issues, provide written opinions to the Board and convene voice votes and/or special meetings. TRS Counsel shall be included in meetings with and on the distribution list for the Evaluation and Litigation Counsel and shall review any joint recommendations from the Law Department and the OTC after such recommendation is made to the Board to pursue a particular case as described in Section IV, B of this protocol. The Fund Counsel shall also review the Law Department's monthly litigation report to the Board once it is issued.

¹⁸ In April 2013, the Board adopted a resolution to omit the requirement that evaluation counsel is not eligible to serve as litigation counsel in the same matter.

13. Proxy Voting Policies and Procedures¹⁹

Generally, the Board favors proposals that further disclosure and increase access to information about a company in which the System has an ownership interest. The Board also supports proposals that encourage management to pursue socially desirable goals that do not negatively affect the System's investments. The Board generally does not favor proposals to require immediate discontinuation of a particular business or product that is lawful, although certain exceptions to this rule exist as set forth in the TRS Proxy Voting Guidelines ("Guidelines").

Proxy Sub-Committee Authority

The Sub-Committee consists of three parties: Teacher Representative, Comptroller Representative and Mayoral Representative. All actions of the Sub-Committee must be subsequently ratified by the full Board. The Sub-Committee recommends for Board approval shareholder resolutions to be filed at various companies. The Sub-Committee considers the OTC's recommendations for voting proxy issues that are not covered by TRS' Proxy Voting Guidelines and, on behalf of the Board, promulgates voting policies and procedures on such issues.

In fulfilling the Proxy Voting Policy of the Board, the following procedures shall be used.

Each year, the Proxy Subcommittee, on behalf of the Board, reviews the OTC's recommendations for shareholder proposals and target companies, and decides which proposals and companies will comprise TRS' annual shareholder proposal program.

The Chair, or the OTC with notification of the Chair, shall call all committee meetings. If time does not allow a meeting to be called, the Chair or the OTC shall set up a conference call among the committee members and the OTC's staff. If a conference call is not feasible, the Chair or the OTC shall conduct a telephone or an e-mail poll of the committee members. If a Trustee is not available his/her vote shall be recorded as an abstention.

In voting proxies, the Comptroller shall follow the latest approved TRS' Proxy Voting Guidelines ("Guidelines"):

Vote Action – For Proposal

The OTC shall vote FOR a proposal if such proposal is consistent fully with the provisions stipulated in the resolutions/policies promulgated by the TRS Proxy Committee.

¹⁹ New Proxy Voting Guidelines and additional methods for communicating with the Committee were adopted in April 2012.

Vote Action – Against Proposal

The OTC shall vote AGAINST a proposal if such proposal is inconsistent with or contrary to, the philosophy, intent and spirit of the resolutions/policies promulgated by the TRS Proxy Committee.

Vote Action – Abstain

Absent enabling TRS resolutions/policies and past history, or the availability of adequate information, the OTC shall ABSTAIN.

If time does not permit the OTC to present to the Proxy Committee, for its review and voting decision, a proposal with voting-policy recommendation and adequate background information, the OTC shall ABSTAIN.

Review of New Issues

Each spring, the OTC and the Proxy Committee shall meet to review new proxy issues. The Proxy Committee may review and revise existing policies and procedures.

Proposal not Covered by Existing Board Resolution – Time Permitting

If time permits, the OTC shall present to the Proxy Committee, for review, deliberation and vote decision, proposals pertaining to issues, which are not covered by past practice or existing policies. To facilitate this process, the OTC shall provide the Board the full text of such proposals, supporting and opposing statements, and other available background information that would represent fairly the views of proponents and opponents of issues.

Proposal not Covered by Existing Board Resolution – Time Limited

In the event that the distribution of proxy statements is delayed through corporate, postal, or other setback, particularly as it relates to issues not covered by past practice or existing policy, the OTC or the Chair shall conduct a telephone conference call of the members of the Proxy Committee and the Comptroller's Staff and obtain the votes of the members on the proposal. If a conference call is not feasible, the Chair or the OTC shall conduct a telephone or an e-mail poll of committee members. The OTC shall be guided by the consent of a simple majority. In the event of a deadlock, the OTC shall ABSTAIN.

Mergers and Acquisitions²⁰

The Comptroller's Office casts votes on mergers and acquisitions consistent with the Proxy Voting Guidelines adopted by the Trustees.

²⁰ New Proxy Voting Guidelines governing votes on mergers and acquisitions were adopted in April 2012.

Reports to the Trustees

The OTC shall submit annual summary²¹ reports to the Proxy Committee on the results of the TRS' shareholder proposal program, and on votes cast by the Comptroller's Office against management director nominees.

14. Ethics and Compliance Policy

I. Purpose of the Policy

The Board, in furtherance of the management and investment of the assets of TRS, have determined to establish a comprehensive written Ethics and Compliance Policy (the "Policy") for investment consultants (the "Consultants") and for investment managers (the "Managers") that do or seek to do business with TRS. The Board has requested that OTC implement the Policy on behalf of TRS.

The purposes of the Policy are:

- to identify and ensure disclosure of any potential risk, conflicts of interest and/or other ethical issues both before and after entering into contracts or transactions with the Consultants and the Managers firms;
- to ensure that proper internal compliance controls are in effect at the Consultants and Managers firms, so as to reduce the risk to TRS;
- to provide a protocol for ensuring that Consultants and Managers are in compliance with the federal securities laws and the rules of the U.S. Securities and Exchange Commission ("SEC"), and other applicable law;
- to obtain timely disclosure from the Consultants and the Managers as to actual or alleged non-compliance with the Consultants and the Managers' internal controls or with applicable law; and
- to assist OTC and TRS in identifying and responding to non-compliance on the part of any Consultant and/or Manager.

OTC will not recommend continuation of or selection of any Consultant or Manager which does not meet the standards of compliance with this Policy. In addition, a Consultant or Manager, that discloses a conflict of interest or other violation of this Policy to OTC, must refrain from giving advice or making decisions about any matters affected by the conflict of interest or other violation of this Policy, until and unless authorized by the Board.

II. Annual Certification Obligation of Consultants and Managers

²¹ Summary reports were accepted by the Committee since the Fall of 2001 reporting.

Annually, on or before June 15th of each year, Consultants and Managers shall submit an Annual Certification and Compliance Statement (the “Annual Statement”) to OTC, which Annual Statement shall, in addition to providing an update on conflicts of interest, include a certification, in which, at a minimum, the Consultant or Manager makes the following representations: 1) that the Consultant or Manager is a fiduciary of TRS; 2) that the Consultant or Manager has received and read the Policy; 3) that the Consultant or Manager is in full compliance with the Policy, except as disclosed in the Annual Statement; 4) that the Consultant or Manager is in full compliance with any other applicable policies and procedures of TRS that apply to such Consultant or Manager, except as disclosed therein; and 5) that the Consultant or Manager is in full compliance with all applicable laws and regulations.

In addition to the above certification, Consultants and Managers, in their Annual Statements, must disclose all information specified in sub-sections A and B below. Although the firm’s Form ADV or other S.E.C. filings may be provided as a supplement; the firm must make full and complete disclosure in the body of the Annual Statement itself.

A. Conflicts

A conflict of interest exists for a Consultant or Manager whenever the Consultant or Manager has a direct or indirect pecuniary interest or a relationship (without regard to whether the relationship is direct, indirect, personal, private, commercial, or business) with a third party, and the interest or relationship could diminish the Consultant’s or the Manager’s independence of judgment in the performance of the Consultant’s or the Manager’s responsibilities to TRS.

Consultants and Managers must promptly disclose conflicts of interest in writing to OTC, which shall promptly disclose such conflicts to TRS for review.

1. Relational Conflicts, Generally

- a) Each Manager/Consultant is required to include a written statement to OTC specifying its affiliates and the lines of relationship between itself and said affiliates, their lines of business, and whether affiliates have any role in the investment process related to TRS.
- b) Each Manager/Consultant must also disclose to TRS, at least annually, any actual or potential conflicts of interests between the Manager/Consultant (including its affiliates) and TRS, such as with respect to: i) investment of TRS assets in investment vehicles marketed or managed by the Manager/Consultant or affiliates; ii) allocation of investment opportunities as between TRS and either the Manager/Consultant, affiliates or other clients; or iii) use, on behalf of TRS, of services provided by affiliates, such as brokerage or auditing services. Managers/Consultants must also promptly notify OTC of any additional such conflicts that have arisen since the last Annual Statement.
- c) Managers/Consultants must also report to TRS the procedures in place to prevent such conflicts and/or mitigate their effects should they occur; and of the

Manager's/Consultant's policy in relation to the allocation of investment opportunities among its affiliates, between itself and outside clients, and also among outside clients.

2. Compensation Conflicts

- a) Managers/Consultants must disclose to TRS all matters, including beneficial ownership of securities or other investments that reasonably could be expected to interfere with their duty to TRS or with their ability to make unbiased and objective decisions in the investment of TRS's assets. Managers/Consultants must also promptly notify TRS of any additional such matters that have arisen since the last Annual Statement.
- b) Managers/Consultants must also disclose to TRS:
 - i) all monetary compensation or other benefits that are in addition to compensation or benefits conferred by TRS, and that they, their affiliates or their personnel have received or may receive for any services performed or to be performed that relate in any way to assets of TRS, including services for "portfolio companies" of the TRS (those companies whose securities the Manager holds on behalf of TRS, other than in an index fund);
 - ii) any referral fees or other consideration or benefit received by the Manager/Consultant or delivered to others for the recommendation of any services to TRS; and
 - iii) the full details of any services for portfolio companies of TRS that the Manager/Consultant has undertaken, performed, or agreed to perform.
- c) Managers/Consultants must also promptly notify TRS of any additional such compensation or benefits or earned, received or agreed, or services undertaken, performed, or agreed to, to since the last Annual Statement.

3. Conflicts Relating to TRS's Other Advisors

- a) Managers must disclose whether any Consultant is an affiliate of the Manager. Consultants must disclose whether any Manager an affiliate of the Consultant. Affiliate for this purpose includes a parent, subsidiary, debtor, creditor, entity under common ownership, entity in which the Manager/Consultant has invested or which has an investment in the Manager/Consultant or entity with which the Manager/Consultant has a strategic alliance. If yes, the Annual Statement must include a detailed description of the nature of the affiliation.
- b) Managers must further disclose whether in the past five years, the Manager or any affiliate of the Manager has paid any compensation to any Consultant, or entered into any agreement with any Consultant, under which the Manager or any affiliate of the Manager may pay compensation in the future. Compensation for this purpose means any payment, product or service, and includes, but is not limited to, conference registration fees, research or consulting fees, and brokerage commissions, paid either directly or through soft-dollar arrangements. If so, the Annual Statement must, with

respect to each and every Consultant, describe in detail:

- I. the full name of the Consultant;
- II. the amount(s) of the compensation;
- III. the year(s) in which it was paid;
- IV. the purpose of the compensation; and
- V. the terms of the agreement.

c) Consultants must further disclose whether in the past five years, the Consultant or any affiliate of the Consultant, has paid to or received from Manager any compensation, or has entered into any agreement with any Manager, under which the Consultant or any affiliate of the Consultant may pay or receive compensation in the future. Compensation for this purpose means any payment, product or service, and includes, but is not limited to, conference registration fees, research or consulting fees, and brokerage commissions, paid either directly or through soft-dollar arrangements. If so, the Annual Statement must, with respect to each and every such Manager, describe in detail:

- I. the full name of the Manager;
- II. the amount(s) of the compensation;
- III. the year(s) in which it was paid;
- IV. the purpose of the compensation; and
- V. the terms of the agreement.

d) Consultants must further disclose:

- (i) whether they have any arrangements with broker-dealers under which they or an affiliate will benefit if any Managers place trades for TRS with such broker-dealers, and if so, must disclose the full details of those arrangements; and
- (ii) what percentage of their public pension plan or ERISA clients utilize investment managers, investment funds, brokerage services or other service providers from whom the Consultant or any affiliate receives fees.

e) Managers that have “soft dollar” arrangements with broker-dealers must further disclose whether, in connection those arrangements, they have received any of the following three categories of compensation from any broker-dealer in the past twelve months, and if so, must disclose in detail what they received in those three categories, and from whom

- (i) physical or tangible items, such as computer hardware and accessories, phone lines or office equipment;
- (ii) payment of travel expenses or meals or entertainment associated with attending seminars; or

- (iii) software or consultant services that relate primarily to a Manager's internal management or internal operations.

B. Compliance With Law

Managers and Consultants, as applicable, shall further certify the following:

1. Managers/Consultants Must Have a Code of Ethics.

Every Manager/Consultant must have a Code of Ethics that satisfies the requirements of Rule 204A-1 under the Investment Advisers Act, regardless of whether the Manager/Consultant is required to register under that Act.

2. Managers/Consultants Must Have Third-Party Review of Controls.

a) Each Manager/Consultant must certify that it has a periodic review of its Compliance Manual and compliance controls by an independent third party at least once every 3 years. Internal review by the General Counsel, Chief Compliance Officer, or similar official of the firm or any of its affiliates does not qualify as an independent review. If the Manager/Consultant has not yet completed an independent third-party review, the first review must be completed no later than June 2008. However, Managers/Consultants first entering into contract(s) with TRS after June 2005 must complete their first such review no later than 3 years from the date of the initial contract with the TRS. Should any third-party review identify any deficiencies in the compliance controls or Compliance Manual, the firm must provide to OTC a copy of the third-party's report and an explanation of any remedial actions taken or planned.

b) In addition to the third-party review of the Compliance Manual and compliance controls, TRS encourages Managers managing assets aggregating over \$3 billion for all clients to have conducted at least a Level I SAS 70 review, or the equivalent of a SAS 70 in the country of incorporation or formation. The third-party review of the Compliance Manual and compliance controls may be conducted as an explicit add-on to a SAS 70 review.

3. Managers/Consultants Must Monitor Personal Trading.

Each Manager/Consultant must certify that it has a written personal trading policy with an established method for monitoring same. For Managers/Consultants managing, or advising as to, assets aggregating over \$3 billion for all clients, TRS encourages the use of an automated system, such as STAR Compliance. The Manager/Consultant must report in detail any personal trading violations within the last 12 months and report the Manager/Consultant's response to it. It is acceptable if the disclosure of these violations is grouped according to categories of violations and of employees in some reasonable manner.

4. Managers Must Have a Policy on Mutual Funds Trading.

The Manager must certify that it has a written policy on disclosure of market timing and

late trading of mutual funds, where applicable, which should comply with the requirements of the SEC RIN 3235-AI99. The Manager should notify OTC, i) annually; and ii) promptly upon occurrence, of any violations and/or investigations by any government agency or any securities exchange involving or against the Manager or any of its personnel within the last three years with respect to such trading.

5. Managers Must Report Prior Guideline Violations.

Managers are required to include a report to OTC on any inquiry or other action by any government agency relating to the improper sale within the last three years by the Manager to any person of any restricted securities (such as those covered by Rule 144a).

6. Managers/Consultants Must Provide Updates on Government Investigations and Enforcement Actions.

- a) Managers and Consultants must, unless prohibited by law, regularly and promptly provide updates to OTC in detail with respect to the commencement of, status of, or significant developments in, any government investigation of the Manager or Consultant or its employees in connection with any potential violations of applicable laws, or any enforcement action in connection therewith.
- b) Managers and Consultants must promptly provide such updates, and must promptly provide all disclosure called for by this Policy, regardless of whether the Manager or Consultant is required to file an S.E.C. Form 8K or is yet due to file a Form ADV.

III. Non-Compliance with this Policy - Reporting Requirements

OTC Will Report Non-Compliance to the Board

To the extent OTC receives or obtains information indicating that the Consultant or Manager is substantially out of compliance with the Policy and/or substantially in violation of applicable law, OTC will report such information to the Board for whatever action the Board deems appropriate, which may include termination of the Consultant or Manager.

IV. Dissemination of Policy to Consultants and Managers

A. Current Consultants and Managers

Upon adoption of this Policy by the Board, OTC shall immediately forward copies of the amended Policy to all current Consultants and Managers.

B. Prospective and New Consultants and Managers

1. Consultants and Managers seeking to do business with TRS will be required to certify compliance with the Policy, and provide the disclosures required by the Policy, at the time they submit their response to a Request for Proposals (“RFP”) or, in the event that there is no RFP process, during the selection process.

2. If awarded a contract with TRS, including any assignment of an existing contract, all new Consultants and Managers will be required to file with OTC, prior to signing the contract, their first Annual Certification and Compliance Statement, as described above (the “Initial Statement”). If the date of a new Manager/Consultant’s submitting its initial statement is after January 1 of a given year; then on June 15 of that year, the Manager/Consultant need only file a statement disclosing any updates to the information contained in its Initial Statement.

15. Principles for Responsible Investment

As institutional investors, we have a duty to act in the best long-term interests of our beneficiaries. In this fiduciary role, we believe that environmental, social, and corporate governance (ESG) issues can affect the performance of investment portfolios (to varying degrees across companies, sectors, regions, asset classes and through time). We also recognize that applying these Principles may better align investors with broader objectives of society. Therefore, where consistent with our fiduciary responsibilities, we commit to the following:

1. We will incorporate ESG issues into investment analysis and decision-making processes.

Possible actions:

- Address ESG issues in investment policy statements
- Support development of ESG – related tools, metrics, and analyses
- Assess the capabilities of internal investment managers to incorporate ESG issues
- Assess the capabilities of external investment managers to incorporate ESG issues
- Ask investment service providers (such as financial analysts, consultants, brokers, research firms, or rating companies) to integrate ESG factors into evolving research and analysis
- Encourage academic and other research on this theme
- Advocate ESG training for investment professionals

2. We will be active owners and incorporate ESG issues into our ownership policies and practices.

Possible Actions:

- Develop and disclose an active ownership policy consistent with the Principles

- Exercise voting rights or monitor compliance with voting policy (if outsourced)
- Develop an engagement capability (either directly or through outsourcing)
- Participate in the development of policy, regulation, and standard setting (such as promoting and protecting shareholder rights)
- File shareholder resolutions consistent with long-term ESG considerations
- Engage with companies on ESG issues
- Participate in collaborative engagement initiatives
- Ask investment managers to undertake and report on ESG-related engagement

3. We will seek appropriate disclosure on ESG issues by the entities in which we invest.

Possible Actions:

- Ask for standardized reporting on ESG issues (using tools such as the Global Reporting Initiative)
- Ask for ESG issues to be integrated within annual financial reports
- Ask for information from companies regarding adoption of /adherence to relevant norms, standards, codes of conduct or international initiatives (such as the UN Global Compact)
- Support shareholder initiatives and resolutions promoting ESG disclosure

4. We will promote acceptance and implementation of the Principles within the investment industry.

Possible Actions:

- Include Principles-related requirements in requests for proposals (RFPs)
- Align investment mandates, monitoring procedures, performance indicators and incentive structures accordingly (for example, ensure investment management processes reflect long-term time horizons when appropriate)
- Communicate ESG expectations to investment service providers
- Revisit relationships with service providers that fail to meet ESG expectations
- Support the development of tools for benchmarking ESG integration
- Support regulatory or policy developments that enable implementation of the Principles

5. We will work together to enhance our effectiveness in implementing the Principles.

Possible Actions:

- Support/participate in networks and information platforms to share tools, pool resources, and make use of investor reporting as a source of learning

- Collectively address relevant emerging issues
- Develop or support appropriate collaborative initiatives

6. We will each report on our activities and progress towards implementing the Principles.

Possible Actions:

- Disclose how ESG issues are integrated within investment practices
- Disclose active ownership activities(voting, engagement, and/or policy dialogue)
- Disclose what is required from service providers in relation to the Principles
- Communicate with beneficiaries about ESG issues and the Principles
- Report on progress and/or achievements relating to the Principles using a 'Comply or Explain'¹ approach
- Seek to determine the impact of the Principles
- Make use of reporting to raise awareness among a broader group of stakeholders

¹The Comply or Explain approach requires signatories to report on how they implement the Principles, or provide an explanation where they do not comply with them.

The Principles of Responsible Investment were developed by an international group of institutional investors reflecting the increasing relevance of environmental, social and corporate governance issues to investment practices. The process was convened by the United Nations Secretary-General.

In signing the Principles, we as investors publicly commit to adopt and implement them, where consistent with our fiduciary responsibilities. We also commit to evaluate the effectiveness and improve the content of the Principles over time. We believe this will improve our ability to meet commitments to beneficiaries as well as better align our investment activities with the broader interests of society.

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

INVESTMENT POLICY STATEMENT

QUALIFIED PENSION PLAN AND TAX DEFERRED ANNUITY PLANS*

~~June 15, 2006~~

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Adopted June 15, 2006*

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Amended through June 30, 2013*

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*Does not include the Variable Annuity Programs

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INVESTMENT POLICY STATEMENT

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**TEACHERS' RETIREMENT SYSTEM
OF THE
CITY OF NEW YORK**

**INVESTMENT POLICY STATEMENT – EXECUTIVE SUMMARY
Qualified Pension Plan and Tax Deferred Annuity Plans***

Dated June ~~1530~~, 20~~13~~~~06~~

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*Does not include the Variable Annuity Programs

Section A. PURPOSE OF THE INVESTMENT POLICY STATEMENT

The Teachers' Retirement Board (Board) of the Teachers' Retirement System of the City of New York City (TRS) adopts this Investment Policy Statement (IPS) in furtherance of the management and investment of certain assets of the Qualified Pension Plan and Tax Deferred

Annuity Assets (the Fund). This Fund does not include the assets of the Variable Annuity Programs.

The IPS is intended to outline the investment objectives for the Fund and the assignment of investment policy roles.

~~SECTION~~ Section B. INVESTMENT POLICY ROLES

B(1). Teachers' Retirement Board

As provided in the New York City Administrative Code, the Board is responsible for setting policy and overseeing TRS's operations. The Board is composed of seven members:

- Three Teacher-Members are elected to the Board by the members of TRS.
- The Mayor appoints two Board members, one of whom must be a member of the Department of Education.
- The Comptroller of the City of New York (Comptroller)
- The Chancellor of the Department of Education

Each act of the Board requires the concurrence of the Comptroller or of one member appointed by the Mayor, as well as a member elected by the TRS membership and at least two other members of the Board.

The Board, as a fiduciary, is responsible for the management of the Fund. Responsibilities of the Board include the following:

- Establish and adopt, from time to time, written investment policies including delegations of authority, desired risk levels, investment time horizons, and proxy voting policies. The written investment policies will guide the management of the Fund consistent with the Fund's investment goals and objectives.
- Approve the retention of the Fund's actuary.
- Adopt an appropriate asset allocation strategy that diversifies assets in a manner consistent with the Board's risk/return objectives. The investment of the Fund's assets is governed by federal, state and local law. The Board may invest in securities and other eligible investments consistent with New York State Banking Law, New York State Retirement Social Security Law (RSSL), and other applicable laws and rules subject to applicable restrictions.
- Consider and approve appropriate investment strategies including securities lending strategies.
- Determine the Investment Manager structure for implementation of investment strategies, including such factors as manager style and active versus passive (indexed)

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management approaches. Select Consultants and Investment Managers to implement the investment strategies.

- Approve the commencement and participation in securities litigation, its strategy, and settlement.
- Monitor the performance of Fund assets as well as the investment activities of all Investment Managers and Consultants as they affect Fund assets.
- Approve reasonable and necessary investment expenses to acquire, manage and protect Fund assets.

B(2). Comptroller

Under the New York City Administrative Code, the Comptroller also serves as custodian for TRS's assets. As custodian, the Comptroller performs activities including:

- Selection of one or more custody banks, including a Master Custodian for the safekeeping of the Fund's assets, and monitoring of the performance of the custodians.
- Reconciliation of the monthly accounting statements rendered by the Master Custodian with (a) daily information on trades and positions of publicly traded securities provided by Investment Managers; and (b) periodic information provided by Consultants and Investment Managers regarding illiquid securities.
- Review, audit and processing of payments to Consultants, Investment Counsel, and Investment Managers.

By delegation, which is reviewed quarterly by the Board, the Comptroller is authorized to invest the assets of the Fund. In this role, the Comptroller provides investment advice, implements Board decisions, and reports on investment performance. In carrying out these functions, the Comptroller:

- Advises the Board on all investment issues, including:
 - Investment policy and strategy
 - Asset allocation
 - Manager structure
 - Manager selection
 - Financial and economic developments that may affect the Fund.
- Evaluates and recommends to the Board potential investment partners, Consultants, and Investment Managers for TRS's assets pursuant to established procedures and Board policies.

- Provides the Board's Proxy Committee analyses of proxy issues and vote recommendations, votes proxies of domestic equity securities in accordance with the Board's policies, and recommends and implements annual ownership initiatives.
- Informs the Board of significant developments regarding TRS's assets.
- Implements Board investment decisions.
- Rebalances the portfolio within ranges around the asset allocation targets established by the Board.
- Implements portfolio transitions to effectuate Board decisions.
- Negotiates, enters into, renews, administers and terminates agreements with Investment Managers, Consultants and investment partners on behalf of the Board.
- Directs Investment Managers to sell assets to meet TRS's liquidity needs, and transfers cash to TRS's accounts.
- Monitors the performance of Investment Managers who have been selected by the Board, and reports regularly to the Board on potential issues requiring Board attention.
- Provides regular reports to the Board on the performance of Fund assets.
- Adopts detailed investment guidelines for Investment Managers to ensure implementation of Board mandates and then monitors compliance with these guidelines.

In executing each of these responsibilities, the Comptroller works closely with Consultants selected by the Board.

B(3). Executive Director

The TRS Executive Director is responsible for the internal administration of the Retirement System. The Board appoints the Executive Director. He or she oversees the internal processes necessary for the accurate and timely payment of all benefits and the proper accounting of all financial transactions. He or she is further responsible for overseeing the establishment, monitoring and safeguarding of TRS's internal records and satisfying TRS's external reporting requirements.

The Executive Director organizes Board meetings and reports to the Board on operational issues, benefit payments, and service levels. He or she ensures that TRS maintains efficient operating procedures consistent with the statutory structure of the fund in compliance with federal, state and local legislation.

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B(4). Actuary

The Actuary offers information and advice to the Board as assistance in the Board's determination of an Investment Policy. In particular, the Actuary provides guidance with respect to future cash flows, liabilities, risks and the impact of Investment Policy on the funding of TRS.

The Actuary advises the Board regarding funding issues, including the level of the Actuarial Interest Rate ("AIR") assumption that the Actuary would support for a given Investment Policy. The Actuary periodically recommends to the Board an AIR assumption, which is currently set at 7.8.0%¹ per annum, ~~gross-net~~ of expenses. The AIR assumption is ultimately codified in the New York City Administrative Code.

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Section C. INVESTMENT OBJECTIVE

The overall investment objective of TRS is to achieve a competitive market rate of return compatible with its risk tolerance and with prudent investment practices, and which, together with employee and employer contributions, will allow it to meet current and future benefit obligations and plan expenses. TRS maintains a long-term perspective in formulating and implementing its Investment Policy, as well as in evaluating its investment performance because of the long-term nature of its liabilities.

In implementing its investment objective, the Board considers capital market assumptions on projected returns and risks of a variety of asset classes, as well as the current AIR assumption. Based on the actuarial assumptions and methods recommended by the Actuary and adopted by the Board, the return on assets, together with employee and annual employer contributions, is expected to fully allow the fund to meet current and future benefit obligations. Investment performance that exceeds or underperforms the AIR assumption may materially affect future employer contribution rates. The Board seeks to have long-term investment performance that will equal or exceed its AIR assumption.

Section D. ASSET ALLOCATION

The Board expects asset allocation to be the primary determinant of the Fund's ability to achieve its investment objective. Expected returns for asset allocation purposes are calculated based on five-year capital market expectations. Return expectations are consistent with Modern Portfolio Theory in that, for example, equities are expected to generate a higher return than fixed income instruments over the long run, commensurate with their higher expected return. For this reason, equities, and in particular U.S. equities, comprise the largest portion of the Fund's assets. The Board also strives to diversify the portfolio to manage risk. Diversification is achieved by investing in asset classes such as fixed income, real estate, and private equity – asset classes in which price movements are less correlated with the price movements of U.S. equities. Moreover, the Board seeks to diversify its portfolio by capitalization, geography, economic sector, and other relevant factors. The Fund's asset allocation policy is developed through asset

¹ Per Bob North's Resolution of February 2012 and subsequent legislative change.

allocation analyses performed in collaboration with the Comptroller's Office, the Actuary and the Fund's Consultant. The Board approves an asset allocation policy, which is then implemented by the Comptroller's Office.

TRS last adopted an asset allocation in June ~~2003~~2011. The ~~T~~able below shows the adopted long-term strategic allocation ~~adopted as well as the interim allocation pending full funding of new asset classes.~~

Asset Class	Target Allocation	Rebalancing Range
U.S. Equity	43 1%	+ - 6 5
Non-U.S. Equity	9 16%	+ - 4 2
<u>Emerging Markets Equity</u>	<u>8%</u>	<u>+ - 4</u>
Real Estate Equity Securities	3 4%	+ - 1 5
Private Equity	6 4%	<u>+ - 2</u>
Equity Private Real Estate	3 6%	<u>+ - 2</u>
U.S. Fixed Income (Core + 5)	18 20%	+ - 4
U.S. TIPS	4%	+ - 4 2
Enhanced Yield	4 6%	+ - 2 1
<u>Emerging Markets Debt</u>	<u>3%</u>	<u>+ - 1.5</u>
<u>Opportunistic Fixed Income</u>	<u>5%</u>	<u>+ - 2</u>
<u>Convertible Bonds</u>	<u>3%</u>	<u>+ - 1.5</u>

Section E. AMENDING THE INVESTMENT POLICY STATEMENT

The Board reserves the right to amend the Investment Policy Statement at any time it deems such amendment to be necessary or to comply with changes in Federal, State or City Laws or regulations as these changes may affect the investment of Fund assets. In any event, a review of this Investment Policy Statement shall be undertaken no less frequently than every three years.

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The following sections detail the investment policies for the assets of the Qualified Pension Plan and related Tax Deferred Annuity assets of the Teachers' Retirement System of the City of New York (other than the assets invested in the Variable Annuity Programs).

Section I. PURPOSE OF THE INVESTMENT POLICY STATEMENT

The Teachers Retirement Board ("Board") of the Teachers' Retirement System of the City of New York ("TRS") adopts a written, comprehensive and integrated Investment Policy Statement ("IPS") in furtherance of the management and investment of the assets of the Qualified Pension Plan and Tax Deferred Annuity Assets (the "Fund"). This Fund does not include the assets of the Variable Annuity Programs.

The IPS sets forth the investment objectives and philosophy of TRS investment program, as well as its major components, procedures and policies relating to risk tolerances, liquidity needs, asset allocations and rebalancing ranges. The Statement sets forth procedures to oversee and evaluate the overall performance of the Fund. The Statement further provides a procedural framework for the Board of Trustees and the Office of the Comptroller ("OTC") to select, retain, monitor and evaluate the performance of Investment Managers ("Managers"), Consultants and others.

Section II. INVESTMENT POLICY ROLES

A. Teachers' Retirement Board

TRS is administered by the Board, which is comprised of seven members who may vote, pursuant to the New York City Administrative Code, as described below.

1. Two Board members are appointed by the Mayor, each of who is entitled to cast one vote. One of these members must also be a member of the Department of Education.
2. The Comptroller is entitled to cast one vote.
3. Three Teacher-Members are elected to the Board by the members of TRS, each of who is entitled to cast one vote.
4. The Chancellor of the Department of Education is entitled to one vote.

Board members may designate alternate representatives to serve in his or her place as authorized by applicable law.

The Board shall elect from its membership a chair.

Each act of the Board requires the concurrence of the Comptroller or of one member appointed by the Mayor, as well as a member elected by the TRS membership and at least two other members of the Board.

The Board, as a fiduciary, is responsible for the management of the Fund. Activities of the Board include the following:

- Establish and adopt, from time to time, written investment policies, including delegations of authority, desired risk levels, investment time horizons, and proxy voting policies. The written investment policies will guide the management of the Fund consistent with the Fund's investment goals and objectives.
- Adopt an appropriate asset allocation strategy that diversifies assets in a manner consistent with the Board's risk/return objectives. The investment of the Fund's assets is governed by federal, state and local law. The Board may invest in securities and other eligible investments consistent with New York State Banking Law, New York State Retirement Social Security Law (RSSL), and other applicable laws and rules, subject to applicable restrictions.
- Consider and approve appropriate investment strategies including securities lending.
- Approve the retention of the Fund's actuary.
- Determine the Manager structure for implementation of investment strategies, including such factors as manager style and active vs. passive (indexed) management approaches. Select Consultants and Managers to implement the investment strategies.
- Approve the commencement of securities litigation, its strategy, and

settlement.

- Monitor the performance of Fund assets as well as the investment activities of all Managers and Investment Consultants as they affect Fund assets.
- Approve reasonable and necessary investment expenses to acquire, manage and protect Fund assets.

B. Comptroller

Under the New York City Administrative Code, the Office of the Comptroller (“OTC”) also serves as custodian for TRS’ Fund assets. As custodian, the OTC performs activities including:

- Selection of one or more custody banks, including a Master Custodian for the safekeeping of TRS’ Fund assets, and monitoring of the performance of the custodians.
- Reconciliation of the monthly accounting statements rendered by the Master Custodian with (a) daily information on trades and positions of publicly traded securities provided by Investment Advisors; and (b) periodic information provided by Managers and Consultants regarding illiquid securities.
- Review, audit and processing of payments to Investment Advisors, Investment Counsel, Managers, and Consultants.

By delegation, which is reviewed quarterly by the Board, the OTC is authorized to invest the assets of the Fund.

In its role as Investment Advisor, the OTC provides investment advice, implements Board decisions, and reports on investment performance. In carrying out these functions, the OTC:

- Advises the Board on all investment issues, including:
 - Investment policy and strategy
 - Asset allocation
 - Manager structure
 - Manager selection
 - Financial and economic developments that may affect the Fund.
- Evaluates and recommends to the Board potential investment partners, Consultants and Managers for TRS’ Fund assets pursuant to established procedures and Board policies.
- Provides the Board’s Proxy Committee analyses of proxy issues and vote

recommendations, votes proxies of domestic equity securities, and recommends and implements such annual ownership initiatives.

- Informs the Board of significant developments regarding TRS' Fund assets.
- Implements Board investment decisions.
- Rebalances the portfolio within ranges established by the Board.
- Implements portfolio transitions to effectuate Board decisions.
- Negotiates, enters into, renews, administers and terminates agreements with Managers, Consultants and investment partners on behalf of the Board.
- Directs Managers to sell assets to meet TRS' liquidity needs, and transfers cash to TRS' accounts.
- Monitors the performance of Managers who have been selected by the Board, and reports regularly to the Board on potential issues requiring Board attention.
- Provides regular reports to the Board on the performance of Fund assets.

In executing each of these responsibilities, the OTC works closely with Consultants selected by the Board.

C. Executive Director

The TRS Executive Director is responsible for the internal administration of the Retirement System. The Board appoints the Executive Director. He or she oversees the internal processes necessary for the accurate and timely payment of all benefits and the proper accounting of all financial transactions. He or she is further responsible for the establishment, monitoring and safeguarding of TRS' internal records and satisfying TRS' external reporting requirements.

The Executive Director organizes Board meetings and reports to the Board on operational issues, benefit payments, and service levels. He or she ensures that TRS maintains efficient operating procedures consistent with the statutory structure of the Fund in compliance with federal, state and local legislation.

D. Actuary

The Actuary offers information and advice to the Board as assistance in the Board's determination of an Investment Policy. In particular, the Actuary provides guidance with respect to future cash flows, liabilities, risks and the impact of Investment Policy on the

funding of TRS.

The Actuary advises the Board regarding funding issues, including the level of the Actuarial Interest Rate ("AIR") assumption that the Actuary would support for a given Investment Policy. The Actuary periodically recommends to the Board an AIR assumption, which is currently set at 87.0%² per annum, ~~gross-net~~ of expenses. The AIR assumption is ultimately codified in the New York City Administrative Code.

Section III. ELIGIBLE INVESTMENTS

The investment of the Fund's assets is governed by federal, state and New York City law. The Board may invest in securities and other eligible investments primarily described in Section 235 of the New York State Banking Law and Article 4-A of the New York State Retirement Social Security Law (RSSL), Sections 176 – 179a, subject to applicable restrictions.

Within the parameters of the law, the Board establishes asset allocations and awards investment management contracts subject to the following overall policies:

- Fund assets generally may be invested in mortgages, bonds, notes and other fixed income securities of U.S. and certain other issuers.
- Up to 70% of Fund assets may be invested in public equities, including common stock, preferred stock, and investment company shares. Within the overall 70% limit:
 - Up to 70% of Fund assets may be invested in equity securities of U.S.-based publicly traded companies that are traded on a U.S. exchange.
 - Up to 10% of Fund assets may be invested in equity securities of non-U.S.-based publicly traded companies that are traded on a U.S. or foreign exchange and meet certain other requirements.
 - Additionally, up to 105%³ of Fund assets may be invested in U.S. equity real estate. These investments are included in the overall 70% limit on public equities, even if the underlying securities are not publicly traded.
- In addition, under RSSL Section 177's Basket Clause, the Fund may invest up to 25% of its assets in investments that do not qualify or are not otherwise expressly authorized under RSSL Section 177 or other provisions of law,

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² Per Bob North's Resolution of February 2012 and subsequent legislative change.

³ Per Legislative change to the NYS RSSL in February 2011

subject to certain limitations. Examples of such investments include:

- Equity real estate in excess of 105%⁴ of the market value of Fund assets.
- Private equity investments.
- Other investments that do not qualify or are not expressly authorized under RSSL Section 177 or other provisions of law.

- Further, the Board adopted a resolution to prohibit investments in companies that receive more than 20% of their total revenues from the manufacture of civilian firearms or ammunition (the Gun Manufacturers), and to divest from all such investments within the Fund. This prohibition is applicable to both public and private investments.⁵

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Section IV. INVESTMENT OBJECTIVE

The overall investment objective of TRS is to achieve a competitive market rate of return compatible with its risk tolerance and with prudent investment practices, and which, together with employee and employer contributions, will allow it to meet current and future benefit obligations and plan expenses. TRS maintains a long-term perspective in formulating and implementing its Investment Policy, and in evaluating its investment performance because of the long-term nature of its liabilities.

In implementing its investment objective, the Board considers capital market assumptions on projected returns and risk of a variety of asset classes, as well as the current AIR assumption.

Based on the actuarial assumptions and methods recommended by the Actuary and adopted by the Board, the return on assets, together with employee and annual employer contributions, is expected to fully allow the Fund to meet current and future benefit obligations. Investment performance that exceeds or underperforms the AIR assumption may materially affect future funding rates. The Board seeks to have long-term investment performance that will equal or exceed its AIR assumption.

Section V. INVESTMENT PHILOSOPHY AND STRATEGY

The IPS establishes the investment philosophy and strategy of the Board, as well as

⁴ Per Legislative change to the NYS RSSL in February 2011

⁵ In February 2013, the Board adopted a resolution to prohibit investments in Gun Manufacturers.

implementation procedures. The Board may review and revise the IPS from time to time as market conditions or other factors make such revisions advisable.

The Board expects asset allocation to be the primary determinant of the Fund's ability to achieve its investment objective. Expected returns for asset allocation purposes are calculated based on five-year capital market expectations. Return expectations are consistent with Modern Portfolio Theory in that, for example, equities are expected to generate a higher return than fixed income instruments over the long run, commensurate with their higher expected risk. For this reason, equities, and in particular U.S. equities, comprise the largest portion of the System's assets. The Board also strives to diversify the portfolio. Diversification is achieved by investing in asset classes such as fixed income, real estate, and private equity – asset classes in which price movements are less correlated with the price movements of U.S. equities. Moreover, the Board seeks to diversify its portfolio by capitalization, geography, economic sector, and other relevant factors.

The Fund maintains a long-term investment focus implemented through a policy of rebalancing assets to policy weights on a regular basis. Although the Board reviews performance of the Fund, and of individual Managers, on a quarterly basis, and compares them to established benchmarks, the Board establishes long-term strategy through asset allocation studies conducted periodically. These studies assess long-term expected capital market returns, and include reviews of the Manager structure used to implement the asset allocation policy. The Board may also conduct an asset/liability study when, in its discretion, it believes such a study could assist in the asset allocation process.

Section VI. ASSET ALLOCATION AND REBALANCING

When the Board desires to conduct an asset allocation review the OTC works with TRS' general Consultant (the "Consultant") to present the Board with alternative structures reflecting different risk and return scenarios and asset class diversification strategies. In recommending capital market assumptions and considering asset classes, the OTC and the Consultant coordinate their efforts with those of the general Consultants to the other New York City Retirement Systems.

The Fund's asset allocation policy is developed through asset allocation analyses performed in collaboration with the OTC, the Actuary and the Fund's consultant. The Board approves an asset allocation policy, which is then implemented by the OTC. Any resulting changes in asset allocation are incorporated into the IPS.

To implement changes to the Fund's asset allocation, the OTC issues requests for proposals ("RFPs") or, in the case of illiquid investments, coordinates, with specialist Consultants, a competitive process for the selection of investments (in either case, the "Investment Selection Process"). At the end of the Investment Selection Process, the Board selects Advisors, Managers or other vendors, where appropriate, to invest and manage funds. The OTC arranges funding to the Manager(s) selected by the Board

consistent with these decisions.

TRS adopted its current target Long Term Strategic Allocation (asset allocation) in June 2011. The Table below shows the adopted allocation.

Subsequent to the Asset Allocation adopted in June 2011, the TRS Board approved new rebalancing ranges and interim asset class holding places (parking places) for unfunded commitments. The rebalancing ranges below were adopted by the Board in December of 2011, and were subsequently amended in May 2013.

The unfunded allocation to Non-Core Private Real Estate and Private Equity should be temporarily invested in Domestic Equity; while unfunded allocations to Core Private Real Estate are temporarily allocated to Core +5 Fixed Income. The unfunded allocation to Emerging Market (EM) Debt should be temporarily allocated 25% to EM Equity, 25% to Cash, and 50% to Enhanced Yield Fixed Income. For the allocation to Opportunistic Fixed Income, 80% of the unfunded amounts should be held in Enhanced Yield Fixed Income, while the remaining 20% is to be held in Domestic Equities.

TRS last adopted an asset allocation in June 2003. The table below shows the long-term strategic allocation adopted as well as the interim allocation pending full funding of new asset classes.

	Adopted Long Term Strategic Allocation	Interim Allocation	Rebalancing Range
Equity Securities			
Domestic Equity	31%	+/- 6	
Non-U.S. Equity	9	+/- 4	
Emerging Markets Equity	8	+/- 4	
REITs	3	+/- 1.5	
Private Equity	6	+/- 2	
Private Real Estate	6	+/- 2	
Total Equity	63%		
Total Public Equity		+/- 5%	U.S. Equity 43%
	49%	+/- 5%	
Non-U.S. Equity	16	16	+/- 2
Real Estate Equity Securities	4	4	+/- 1
Private Equity	4	1	
Equity Real Estate	3	0	
Total Equity	70%	70%	+5%
Fixed Income Securities			
Core +5 Fixed-Income	18	+/- 4	

Enhanced Yield**	4	+/- 2	
Emerging Markets Debt	3	+/- 1.5	
Opportunistic Fixed	5	+/- 2	
TIPS	4	+/- 2	
Convertible Bonds	3	+/- 1.5	
Total Fixed-Income	37%		
Total Public Fixed-Income		+/- 11%	U.S. Fixed Income
(Core +5)	20	20	+/- 3
Enhanced Yield	6	6	+/- 1
U.S. TIPS	4	4	+/- 1/2
Total Fixed-Income	30%	30%	+5%

** Effective June 2012, the Board also adopted a specific allocation of up to 1/3 of the Enhanced Yield allocation to Leveraged Loans (aka Bank Loans).

Assets are rebalanced to ensure that the System's actual investment mix remains consistent with its asset allocation policy. Volatility in the capital markets and/or over- or under-performance of a particular asset class drives the need to rebalance. The Board reviews its asset mix on a quarterly basis. This range is designed to constrain the extent to which changes in capital markets result in long-term divergences between asset allocation policy and actual investment mix. Significant or extended divergences from policy must have the approval of the Board.

The OTC implements the Board's rebalancing policy. The OTC monitors the actual investment mix and compares it with the asset allocation policy on a monthly basis. The primary tool for controlling asset class exposure is the payment of pension benefits and expenses from Fund assets. As funds are needed for these payments, the OTC seeks to liquidate assets in overweight classes. Assets are liquidated with a goal of maintaining the Board's allocation decisions to asset classes and to portfolio structure targets within asset classes.

In implementing the rebalancing policy, maximizing the alignment of actual and policy asset allocation is not the sole consideration. The OTC is authorized to take into account factors which a prudent investor might reasonably consider in purchasing or selling securities such as the size of the asset class, liquidity constraints of each asset class, and relative transaction costs and fees.

Other rebalancing interventions may occur when benefit and expense payments are insufficient to keep asset class exposures within the target or in response to a change in asset allocation policy.

In the event that payments of benefits and expenses are insufficient to keep the System's actual investment mix within the established ranges for the policy's asset classes, or where rebalancing is necessitated by a change in asset allocation policy, the

OTC implements a plan for liquidating assets in the overweighted asset class(es) and transferring assets to the underweighted class(es). In constructing the plan, the OTC considers the size of the asset class, the liquidity constraints of each asset class and the transaction costs and fees connected with any such liquidation and transfer.

Coincident with the asset allocation study, the Board reviews with its Consultant the rebalancing ranges for each asset class and class component and makes any revisions to those ranges that seem appropriate given changes in capital market conditions.

Section VII. ~~SECTION VII.~~ GUIDELINES

The OTC adopts detailed investment guidelines for Managers to ensure implementation of Board mandates. Managers are responsible for certifying their compliance with guidelines on a quarterly basis. The OTC also monitors guideline compliance through the Master Custodian's system.

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Section VIII. ~~SECTION VIII.~~ LIQUIDITY

The Fund's asset allocation policy does not include an allocation to cash. Managers are generally expected to be fully invested but may maintain limited cash balances to manage duration of bond portfolios, or as a result of implementing purchases or sales of assets. Cash balances for liquidity are expected to remain below 54%.⁶ except in unusual circumstances. although eCash may in exceed excess of 54% for brief periods to meet benefit payments and rebalancing requirements will require prior notification to, and approval by the Board.

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Section IX. ~~SECTION IX.~~ ROLES AND RESPONSIBILITIES OF SERVICE PROVIDERS

The Board retains service providers to assist in the management of the Fund. Such providers include, but are not limited to, Investment Advisors, general and specialist Consultants, and attorneys. The providers perform in a fiduciary capacity and must exercise the requisite duties of care and loyalty to TRS. The OTC retains the Master Custodian for the Fund.

A. General Consultant

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⁶ Adopted by the Board as a part of the Asset Allocation rebalancing decision in December 2011

The Board employs a general Consultant, which performs as a fiduciary to the Board. The responsibilities of the Consultant include:

- Advising the Board on the investment of TRS' assets.
- Advising the Board regarding strategies for the allocation of assets across capital markets that will generate a long-term return consistent with the Board's investment objectives and risk tolerance.
- Developing cost-effective structures for the implementation of the Board's asset allocation that will maximize excess returns by Managers while minimizing the volatility of the returns.
- Assisting the OTC in identifying potential Managers, in conducting research in screening Managers and in negotiating Manager contracts.
- Monitoring the Managers employed by TRS and providing reports and analyses to the Board and the OTC relating to material events such as, but not limited to, relative performance, material changes to senior personnel, investment process and organization.
- Preparing presentations or position papers on topical issues and specific projects.
- Attending meetings as required.

B. Investment Managers

Fund assets generally are managed externally by Managers retained by the Office of the Comptroller, acting on behalf of and with authorization from the Board. Exceptions include:

- Certain short-term cash reserves managed by the Master Custodian or by the OTC;
- Certain economically targeted investments, managed by the OTC ;
- Limited partnership investments, that are managed by general partners under limited partnership agreements pursuant to the Board's Alternative Investment Policy.

Managers are identified through an RFP process and are required to enter into an investment advisory contract. Responsibilities include:

- Arranging, ordering and monitoring the purchase and sale of securities for the

System's portfolio. The Manager at all times must exercise the highest standard of care to which a professional, ERISA fiduciary or Investment Advisor is subject.

- Adhering to portfolio investment guidelines, including maintaining risk management and oversight policies designed to ensure compliance.
- Advising the OTC on possible amendments to portfolio guidelines, as appropriate, given the dynamic nature of the capital markets and that are in the best interest of the System.
- Advising the OTC on capital actions relating to securities in or proposed for the portfolio.
- Submitting monthly and quarterly reports summarizing portfolio activity.
- Reporting significant changes in ownership or control of the firm or changes in organizational structure or professional staffing.
- Attending account review meetings with OTC and/or TRS as necessary, but on at least an annual basis.
- Providing accurate and timely reporting of positions and trades to the OTC.

C. Master Custodian

By statute, the Comptroller is the custodian of TRS' assets, as well as the assets of other New York City Retirement Systems. Assets include such property as cash (in any currency), securities, any other assets, and earnings and profits thereon.

As Custodian, the Comptroller retains by Agreement a Master Custodian to safeguard the property of the funds that the Custodian or its agents, representatives or sub-custodians may receive from time to time for deposit, and for other purposes. (In the case of certain assets such as international equities in commingled accounts, other custodians may be retained to serve as custodians of particular accounts.)

The Master Custodian and its agents and sub-custodians are fiduciaries to the Comptroller, TRS, and other Systems and Funds.

The Master Custodian provides many services. It holds the Fund Accounts, effects purchases and sales of the securities, collects income that becomes due and payable on property held in the accounts, makes payment from the accounts at the Comptroller's direction, and maintains books and records to clearly identify cash, securities and other property. The Master Custodian is responsible for the safekeeping of all assets, transaction processing, reporting, performance measurement and

compliance, except for accounts where some of these responsibilities are performed by another custodian for a specific account.

The Master Custodian is responsible for the preparation, audit and distribution of investment account reports, plan accounting and specialized reporting for the various TRS portfolios. It calculates and reports the performance of the portfolios, using industry-accepted standards. The Master Custodian assists the Comptroller in verifying compliance with legal restrictions, investment guidelines and other policies set by TRS. It provides notification of class actions, files class action settlement proofs of claims on TRS' behalf and collects and posts settlements to various accounts. The Master Custodian also provides the Comptroller the underlying data to support TRS' proxy voting.

D. Private Equity Consultant

TRS retains one or more specialist private equity Consultants (the "PE Consultant(s)") to assist in the implementation of its strategic allocation to the private equity asset class. The Consultant(s) are fiduciaries and advise the OTC and the Board on all aspects of its private equity investment program. The responsibilities of the PE Consultant(s) include:

- Providing strategic advice:
- Periodic assessments of industry best practices with regard to policies and procedures.
- Analysis of TRS' existing private equity portfolio.
- Recommendations with respect to proposed sub-asset allocations (e.g., allocations to corporate finance/buyout funds, venture capital, etc.).
- Annual and longer-term pacing analyses, translating the TRS allocations to private equity, sub-asset allocations and existing portfolio into proposed investment plans.
- Periodic reports on the state of the private equity marketplace.
- Such other strategic advice and services as TRS or the OTC may reasonably require.
- New investment identification and evaluation, including:
- Periodic reports on current and anticipated investment opportunities.
- Specific summary and detailed due diligence reports on prospective individual private equity, limited partnerships and other investment opportunities and evaluating the investment merits of such opportunities in

the context of the TRS portfolio, policies and plans.

- Detailed non-legal assistance in the negotiation and documentation of authorized commitments.
- Portfolio monitoring
- Periodic and real-time reports on developments at and performance of individual partnerships in the TRS' portfolio.
- Where necessary, advising on and assisting in actions to protect the interests of TRS as an investor and to ensure compliance by general partners with the terms of their partnership agreements.
- Reviewing and recommending courses of action on partnership amendments.
- Meeting regularly with the OTC's staff and making regular presentations to the Board concerning each of these areas of work, as well as individual investment opportunities, and such other topics as the Board or the OTC may request.

E. Real Estate Consultant

To effectively implement its real estate program, the Board has retained a specialist Consultant for real estate. The Real Estate Consultant is a fiduciary to the Board and the OTC. The Consultant advises the Board and the OTC on all aspects of its real estate investment program. Responsibilities of the Real Estate Consultant include:

- Recommending the initial program design.
- Assisting in the development, implementation, and periodic review of real estate investment policy statements/guidelines.
- Assisting in the development of a performance monitoring program.
- Assisting in the development/implementation of RFPs, the search for, and evaluation and selection of Investment Advisors and Managers, and the negotiation of contract terms.
- Prescreening prospective real estate investment opportunities to determine whether the opportunity meets the investment and portfolio objectives of the Fund.
- Conduct due diligence reviews of prospective real estate Investment Advisors, opportunities, Managers, co-investors, partners, programs,

funds and prepared a written report documenting the results of each due diligence review, including a recommendation as to whether the Fund should invest in the reviewed investment.

- Monitoring investment performance and compliance.
- Providing quarterly and annual performance monitoring reports.
- Attending Investment Manager meetings.
- Conducting ongoing and systematic performance analysis in order to identify and report instances of anticipated underperformance or non-compliance with the Fund's real estate investment policies, guidelines, and strategies.
- Providing research and reports on emerging issues, market trends, new investment structures and techniques.
- Attending meetings of the Board, providing educational seminars for the Trustees, and making recommendations and presentations to the Board, as required.
- Meeting regularly with the Comptroller's staff and making regular presentations to the Board concerning each of these areas of work, as well as individual investment opportunities, and such other topics as the Board or the OTC may request.

Section X. SECTION X. INVESTMENT MANAGERS

A. Manager Selection - Public Markets

The Board selects Investment Managers to manage TRS' assets through a competitive RFP process described below. The Board seeks Managers that will provide superior investment management performance. In selecting Managers, the Board evaluates investment management and decision-making capabilities, organizational characteristics, including ownership, management and regulatory issues, the performance of potential Managers in specific investment mandates, and fees.

1. Process

- The OTC, working with the Consultant, develops and the Board approves a Scope of Services document that defines the investment services sought, the minimum requirements for proposers, and evaluation criteria.

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- After Board approval of the Scope of Services, the OTC issues an RFP consistent with New York City procurement requirements.
- The OTC, with the Consultant's input, scores the proposals to identify a "short list" of respondents to be interviewed based on technical proposals received in response to the RFP. The OTC notifies the Trustees of the interview schedule.
- At one or more meetings open to all Trustees, the OTC and the Consultant conduct interviews.
- The OTC rescores the proposals with the additional information obtained at the interviews and with the Consultant's input.
- The OTC ranks and recommends finalists to be interviewed by the Board for potential selection.
- The Board invites the firms that they have selected as finalists to make presentations. The Board conducts interviews of each of the selected finalists.
- The Board selects Managers and with the assistance of the OTC and the Consultant, allocates assets to each firm. In making its final selection, the Board may consider such factors as:
 - The quality and depth of the Manager's investment team.
 - The Manager's clear articulation of its investment strategy.
 - The Manager's successful execution of its strategy over time, as evidenced by, for example:
 - Analysis of the Manager's historical quarterly performance calculated on a time-weighted basis, based on a Global Investment Performance Standards (GIPS) compliant composite of all fully discretionary accounts of similar investment style.
 - Performance evaluation reports prepared by the OTC with the assistance of the Consultant that illustrate the risk/return profile of the Manager relative to other Managers.
 - Significant or adverse regulatory issues.
- The Manager's compliance and information systems.

- The OTC negotiates contracts with selected firms.
- OTC funds the Managers' portfolios in accordance with the Board's mandate.

2. General Requirements

Managers selected to manage publicly traded assets for TRS must be registered investment advisers under the Investment Advisers Act of 1940 or a bank or trust company as defined in the Act.

3. Contract Renewal Policy

Contracts with Managers, Consultants, and other service providers are generally awarded for an initial term of three years, and may be extended at the option of the Board twice for a maximum of three years per extension.

Contracts will provide that the Board may terminate a service provider on 30 days' notice.

B. Manager Selection - Private Markets

TRS invests in private equity using a top-down process, seeking to identify investment opportunities that represent superior opportunities relative to the marketplace as a whole and relative to other investment opportunities characterized by similar strategy. In addition, such opportunities must demonstrate a strong likelihood of producing top-quartile performance, including either:

- (a) History of top-quartile performance in a clearly articulated and consistent strategy, or
- (b) In the absence of a history of top-quartile performance in the specific investment strategy, other superior relevant experience including a combination of:
 - i. Time together as a team,
 - ii. Investment track record assembled elsewhere,
 - iii. Participation in a top-quartile effort, and
 - iv. Experience working successfully in the articulated strategy.

Pursuant to its Alternative Investment Policy, TRS each year adopts an Annual Plan, establishing sub-asset allocations as the System may deem appropriate, establishing a pace and volume of targeted investment, and identifying specific targets for investment, including both "re-ups" – renewals of existing relationships – and new investment relationships. The Board may also elect to allocate funds to discretionary Managers for discrete mandates.

Prospective investment opportunities shall be evaluated by the Consultant(s) and the OTC in the context of the IPS, the Alternative Investment Policy and the Annual Plan. The OTC shall establish and implement due diligence procedures, and shall present recommendations by the Consultant(s) and/or the Comptroller to the Board.

C. Manager Selection – Economically Targeted Investments

TRS invests in Economically Targeted Investments (ETIs). ETIs are investments in a variety of asset classes which generate rates of return commensurate with the overall risk, liquidity, security and structure of comparable non-targeted investments while providing collateral economic benefits (benefits that enhance the quality of life and promote economic development and activity) to the targeted areas. The Board, in its ETI Policy, has established requirements regarding the qualifications of prospective Managers of ETIs and evaluation criteria, by which prospective investments will be considered.

Each year TRS adopts an Annual Plan regarding ETIs. Prospective investment opportunities are evaluated by the OTC (and Consultants as appropriate) in the context of the IPS for the relevant asset class, the ETI Policy and the Annual Plan. In identifying ETIs, the OTC applies appropriate solicitation processes and due diligence procedures, and presents its recommendations to the Board. The Board considers and authorizes ETI investments.

D. Emerging Managers

The Fund seeks to employ Emerging Managers. Emerging Managers are Managers the Board believes will add significant value to the Fund through implementation of investment strategies consistent with the Board's asset allocation and other policies, but which, because of size, length of track record, or other similar factors, have not been awarded contracts through the Board's Manager selection process. Smaller Emerging Managers are typically retained pursuant to a Manager of Managers arrangement, while larger Emerging Managers may be retained directly. The Board implements its Emerging Manager program through a competitive RFP process.

The Emerging Manager Program includes both Fixed Income and Equity Managers. The Board has also determined that the Equity portion of the Emerging Managers Program should be allocated entirely towards small-cap Managers⁷.

⁷ In March 2012, The Board voted to expand the Emerging Managers Program to Fixed Income and to tilt the portfolio to a small-cap program.

E. Brokerage

The Board delegates discretion over placement and execution of securities transactions to its Managers. It is the intention of the Board that all securities transactions be effected to the best advantage of the System regarding price and execution. 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” provisions). The Board requires its Managers to provide accounting of soft dollar transactions involving securities of the System. These reports shall be provided periodically upon request to the OTC, 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.

The Board supports diversity among brokers providing securities transaction services to its Managers. Managers are encouraged, to the greatest extent possible, consistent with best execution, to use minority- and women-owned brokerage firms. Managers will report the use of minority- and women-owned brokerage firms to the OTC.

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~~Section XI.~~ **SECTION XI. PERFORMANCE, MONITORING AND EVALUATION**

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A. Benchmarks

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The Board monitors Fund performance against a variety of applicable benchmarks.

1. Policy Benchmark

To monitor the Fund, the Board adopts a Policy Benchmark, which reflects the performance of the markets to which the Board has allocated assets. As new asset allocation studies are conducted, and funds are re-allocated to new or existing asset classes, the Policy Benchmark will be adjusted to reflect such allocations. The Policy Benchmark serves as a minimum performance objective for the Fund, and allows the Trustees to evaluate the implementation of its asset allocation strategy. The Policy Benchmark will be included in all quarterly evaluation reports of TRS. As of March-June 30⁺, 2013⁰⁶, the composition of asset classes (and the accompanying benchmark) which comprise the Policy Benchmark are as followsie:

- US Equity: Russell 3000 Index
- EAFE: Morgan Stanley Capital International EAFE Index (Net)
- EAFE Small Cap: Small Cap S&P EPAC
- Emerging Markets Equities: TRS FTSE Custom Emerging Markets Index

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- Emerging Markets Debt: (TBD)
- Core+ 5: Citigroup Core +5 Fixed Income Index
- Enhanced Yield: Citigroup BB & B Fixed Income Index
- Leveraged Loans: Credit Suisse Leveraged Loans Index
- TIPS: Barclays Capital US Inflation Linked Index
- Convertible Bonds: Bank of America Merrill Lynch All US Convertibles ex-Mandatory Index
- Opportunistic Fixed Income: 10% Absolute Annual Return*
- Private Equity: Russell 3000 Index + 300 bps
- REITS: Dow Jones U.S. Select Real Estate Securities Index
- Real Estate: NFI - ODCE Index +100bps (net)
- Infrastructure: Consumer Price Index ("CPI") plus 4% (net)
- ~~49% Russell 3000 Index~~
- ~~16% Morgan Stanley Capital International EAFE Index~~
- ~~4% Wilshire Real Estate Securities Index~~
- ~~1% Russell 3000 Index + 500 bp~~
- ~~0% NCREIF NPI+ 100bp~~
- ~~24% NYC Core +5 Fixed Income Index~~
- ~~6% Citigroup BB & B Fixed Income Index~~
- ~~4% Lehman U.S. TIPS Index~~

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*The Opportunistic Fixed Income Portfolio is secondarily benchmarked to the JP Morgan Global High Yield Plus 3% for the purpose of capturing the Program's volatility.

2. Asset Class Benchmarks

The Policy Benchmark is composed of benchmarks, which have been established for each individual asset class. The Board will review performance of each asset class relative to its selected benchmark on a quarterly basis.

3. Investment Manager Benchmarks

Each Manager is evaluated relative to an Investment Manager Benchmark composed of a market index plus an active management premium reflecting the Manager's particular style or tactical role in TRS' investment program. Each Investment Manager Benchmark will be clearly specified, measurable, and, for liquid securities, investable. Benchmarks may be customized for a particular style or styles. The appropriate Investment Manager Benchmark and expected active management premium shall be determined in advance of funding by mutual agreement between the Manager, the OTC and the Consultant.

4. Peer Group Analysis

The Board reviews the performance of the Fund relative to a peer group of other major

public pension funds on a quarterly basis. However, due to differences in asset allocation, time horizon, and risk tolerance between public pension funds, comparisons of Fund performance to the AIR assumption and Policy Benchmark are the primary evaluation methods used by the Board.

B. Investment Information

The Board monitors the performance of the Fund and of individual Managers through ongoing monthly and quarterly reviews of performance, market developments, and Manager reviews. The Board uses two primary reports to monitor investment information, the quarterly performance report and the monthly flash report. In addition, the Board may monitor individual Managers through the Watch List. The OTC and the Consultant also report to the Board periodically on issues identified by the OTC, the Consultant, or the Board as requiring additional review.

On a quarterly basis, the Board reviews a performance report that includes a commentary prepared by the Consultant summarizing portfolio developments and performance. The quarterly performance report also provides detailed quantitative information regarding the risk and performance of Fund assets. Performance is evaluated relative to appropriate market benchmarks, peer comparison universes, and a variety of relevant time periods.

In addition, the Board reviews a flash performance report at each investment meeting. The flash performance report includes asset class and policy benchmark returns for the prior fiscal year and estimated fiscal year-to-date returns.

Managers provide daily and monthly reports regarding portfolio holdings and transactions to the OTC. Managers also complete a detailed quarterly questionnaire regarding portfolio holdings and organizational developments. Responses to the questionnaire are reviewed by the Consultant and the OTC. Material developments affecting the Fund are reported to the Board.

C. Manager Watch List

The Board monitors the performance of its Managers on an ongoing basis, through its quarterly reporting process. In general, Manager performance is evaluated over a full investment cycle.

The Board may terminate a Manager at any time. The Board or the OTC may place a Manager on the watch list. When a Manager is placed on the watch list, the Board and the OTC will specify the reasons for its decision. After the OTC places a Manager on the watch list, the OTC will notify the Board. The OTC and the Board's General Consultant will report regularly to the Board on the Manager's progress toward resolving

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the issue(s) resulting in placement on the watch list. After the Manager is placed on the watch list, the Board will, typically within one year, either conclude that the issue(s) have been resolved, or terminate the Manager.

The OTC and the Board may take both qualitative and quantitative factors into account in considering whether to place a Manager on the watch list or whether to terminate a Manager. Examples of qualitative factors include concerns regarding personnel, organizational changes, and ethical, legal or regulatory issues. Examples of quantitative factors are lagging performance or indicators that the investment mandate is not being implemented.

1. Watch List Guidelines - Qualitative Factors

The table below sets forth some of the *qualitative* factors that the Board may consider in determining whether to place a Manager on the watch list or to terminate a Manager.

FACTOR	EVALUATION TECHNIQUE	ACTION STEPS
Changes in ownership	Require immediate notification of any pending changes in ownership.	Assess risk that change may negatively affect investment performance.
Turnover of key personnel	Require immediate notification of any changes in personnel involved in the management of the System's assets, or the senior officers of the Manager.	Assess risk that change may negatively affect investment performance.
Litigation	Require immediate notification if the Manager, a parent, or affiliate is involved in any material litigation, regulatory or enforcement action.	Evaluate nature, seriousness and likely impact of charges on the investment process and take appropriate action.
Conflicts of interest	Require Manager to provide immediate written disclosure.	Review to determine if conflict was material and should have been known by Manager and reported to the Board.
Failure to disclose material information which could affect Manager evaluation	Require Manager to provide immediate written disclosure.	Review information to determine materiality and reasons for failure to disclose.

2. Watch List Guidelines - Quantitative Factors

Managers are expected to exceed their Investment Manager Benchmark (which is composed of a market index plus an active management premium) net of fees over rolling five-year periods. Investment performance is measured on a quarterly basis. Failure to outperform or, in the case of index Managers, to match the market index over time will typically result in placement on the watch list or in the Manager's termination. Failure to outperform the Investment Manager Benchmark (net of fees) may result in placement on the watch list after consideration of tracking error, information ratio, and other quantitative and qualitative factors.

Managers are expected to maintain their stated investment style and philosophy. Quantitative measures of investment style and philosophy include style mapping, style attribution analysis, and tracking error relative to a benchmark. The Consultant monitors these factors on a periodic basis and advises the OTC of potential deviations. Indications that a Manager is not maintaining its investment style and philosophy will typically result in the Board placing the Manager on the watch list. The OTC and the Consultant will then present to the Board an evaluation of the Manager's consistency with the Board's asset allocation policy and the Manager's stated investment approach.

Section XII. ~~SECTION XII.~~ RISK MANAGEMENT

The Trustees recognize the inevitability of the assumption of risk in the management of the Fund's portfolio. The issue of risk is considered at many levels of the investment decision and implementation process. Risk will be analyzed during the asset allocation strategy and decision making phase, through the application of various approaches such as risk budgeting, value at risk, volatility and tracking error. The portfolio is diversified across both the public and private capital markets in order to achieve the optimal balance of risk and return among asset classes. During the implementation phase of the asset allocation strategy, risk issues will be addressed as part of the manager selection process. In addition, Managers will be required to have internal controls and risk management systems appropriate to their investment disciplines. Managers selected by the Board shall provide information adequate in quantity, quality and timeliness to permit the OTC, the Custodian, and the Consultant to monitor and report to the Trustees on risk and compliance.

Section XIII. ~~SECTION XIII.~~ PORTFOLIO TRANSITIONS

Transition management is an integral part of portfolio management. When the Board terminates a Manager and re-allocates assets to another Manager, or funds a new mandate, the portfolio must be transitioned. The OTC selects and works with transition Managers to implement each transition.

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Transitions are to be completed in a cost-efficient manner given the characteristics of the portfolios and market conditions. Cost-efficiency for equity portfolio transitions is measured by an analysis of total implementation shortfall. The OTC presents a post-trade analysis of the transition to the Board upon completion.

Section XIV. ~~SECTION XIV.~~ SECURITIES LENDING

The Board has authorized the Comptroller to enter into agreements establishing participation in securities lending programs. Securities lending enables the Fund to use its asset base to augment investment income. It involves the temporary exchange of securities owned by the Fund for other securities or cash of a greater value, with an obligation of the borrower to pay a fee to the Fund, and to return a like quantity of the borrowed securities at a future date. The fee paid by the borrower is agreed in advance, while the Fund has contractual rights similar to those it would have as the beneficial owner of the securities except that the Fund does not retain voting rights on loaned equity securities.

The objective of securities lending is to earn income through a conservatively operated and well controlled program. There is no absolute return expectation; rather, income is expected to be commensurate with the market demand for the securities made available by the Fund and the return earned on the investment of cash collateral. Cash collateral received will be invested in a high-quality investment program that emphasizes the return of principal, maintains required daily liquidity, and ensures diversification across approved investment types. Those objectives are pursued within the parameters governing the program as outlined in the securities lending agreements with agent banks. Each agent bank is required to act as a fiduciary with respect to TRS and the Fund, and to have systemic and procedural controls in place to ensure adherence to guidelines for operating the securities lending program on behalf of the Fund. The results of the securities lending program are reported to the Board on a regular basis.

Section XV. ~~SECTION XV.~~ SECURITIES LITIGATION PROTOCOL

TRS' objectives in choosing to take an active role in securities litigation include the following:

- Preservation of Fund assets and collection of all amounts due to TRS;
- Maximizing the net recovery to the class; and

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- Effecting corporate governance reforms, when appropriate.

TRS will use the process outlined in the Securities Litigation Protocol, (set forth in Appendix 1, [Section 120](#)), in evaluating and acting on any situation in which securities litigation may be appropriate.

Section XVI. SECTION XVI. INVESTMENT EXPENSES

It is the policy of the Board that expenses such as consultants' and investment advisors' fees, attorneys' fees and costs, funding for Personal and Other Than Personal Services resources for the OTC and other costs that may necessarily be incurred in acquiring, managing and protecting the Fund's investments may be paid from any income, interest or dividends derived from the Fund's deposits or investments. The Board adopts a budget for the incurrence of consultants' and investment advisors' fees, attorneys' fees and other costs. OTC reviews the expenses and costs and arranges for their payment by the custodian bank. Pursuant to a budget, the Board also funds the expenditures of additional resources of Personal Services and Other Than Personal Services for the OTC, which will report at least annually to the Board regarding the additional resources.

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Section XVII. SECTION XVII. PROXY VOTING POLICY AND SHAREHOLDER INITIATIVES

The duty of pension fund fiduciaries to exercise the voting rights attached to the shares of stock owned by their funds has long been established. In the early 1980s, top officials of the Labor Department's Pension and Welfare Benefits Administration (PWBA) (renamed Employee Benefits Security Administration (EBSA), which enforces fiduciary standards for plan sponsors and Managers, repeatedly stated that the right to vote shares owned by a pension plan is, in itself, an asset of the plan, and, therefore, the fiduciary's responsibility to manage the assets includes voting proxies on issues that may affect the value of the shares.

While official pronouncements and guidance on proxy voting rights primarily have been directed to the private sector institutions which have established Plans governed by Employee Retirement Income Security Act of 1974 (ERISA), or to the mutual funds industry, many public pension funds, religious and tax-exempt institutions have followed this guidance. Many private and public pension funds have established proxy committees and guidelines for voting their proxies, and exercise their voting rights in accordance with these policies and guidelines.

This general acceptance of the proxy vote as a plan asset is the primary basis on which TRS established a Proxy Subcommittee. The Subcommittee promulgates proxy voting policies and procedures, and oversees TRS' sponsorship of shareholder proposals to

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improve corporate governance and corporate social responsibility of companies in which TRS invests. The Proxy Subcommittee seeks to ensure that companies follow sustainable business practices, which advance their long-term economic value.

The Proxy Subcommittee is composed of members of the Board and their operations are described in Appendix 1, [Section 134](#).

Section XVIII. SECTION XVIII. ETHICS AND COMPLIANCE POLICY

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In furthering the Board's fiduciary duty to manage and invest the assets of the System, the Board of Trustees has adopted an Ethics and Compliance Policy ([the Ethics Policy](#)) establishing a comprehensive set of written requirements for the investment consultants (Consultants) and investment managers (Managers) who do or seek to do business with the System.

~~In~~ accordance with the [Ethics](#) Policy (appended hereto as Appendix 1, [Section 142](#)), the Consultants and Managers shall submit an Annual Compliance Statement to [the](#) OTC. Such statement shall include a Certification representing that the [Ethics](#) Policy was received and read, and that the Manager or Consultant is in full compliance therewith. It shall also provide appropriate disclosures of real or potential conflicts, and/or of non-compliance with the law or with policies of the System or of the City of New York as they may apply to the Consultant or Manager.

To the extent OTC receives or obtains information indicating that the Consultant or Manager is substantially out of compliance with the [Ethics](#) Policy and/or substantially in violation of applicable law, OTC will report such information to the Board for whatever action the Board deems appropriate, which may include termination of the Consultant or Manager.

Section XIX. SECTION XIX. THE PRINCIPLES FOR RESPONSIBLE INVESTMENT

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The Trustees, acknowledging a duty to act in the best long-term interest of TRS' beneficiaries, adopted the UNEP Principles for Responsible Investment. It is believed that environmental, social and corporate governance (ESG) issues can affect the performance of investment portfolios over time and that applying these Principles may better align TRS' investments with the broader interests of society.

As stated in those principles, it is the intent of the Trustees, where consistent with their fiduciary duties, to:

- Incorporate ESG issues into investment analysis and decision-making processes;
- Be active owners and incorporate ESG issues into ownership policies and practices;
- Seek appropriate disclosure on ESG issues by the entities in which TRS invests;
- Promote acceptance and implementation of the Principles within the investment industry;
- Work with other adopters of the Principles to enhance the effectiveness of their implementation; and
- Share information on our activities and progress towards implementation of the Principles.

• A copy of the Principles is appended hereto as Appendix 1, Section 1543.

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Section XX. ~~SECTION XX.~~ REVIEW AND MODIFICATION OF THE IPS

The TRS Board reserves the right to amend the IPS at any time it deems such amendment to be necessary or to comply with changes in Federal, State or City Laws or regulations as these changes may affect the investment of Fund assets. In any event, a review of this IPS shall be undertaken no less frequently than every three years.

The date and a summary description of amendments or modifications to the IPS are recorded below:

Date	Summary of Amendment or Modification
<u>January 2008</u>	<u>The Board adopted a 1% allocation to Convertible Bonds from Core+ 5 Fixed Income.</u>
<u>June 2008</u>	<u>Board also adopted an allocation to Opportunistic Fixed Income: 5% of the Fixed Income portfolio.</u>
<u>June 2008; Oct. 2010; March 2012</u>	<u>Amendments to the US Equity sub-allocations and structure – including decisions on size and style mix, expansion of the Manager of Manager Program and changing its structure, etc.</u>
<u>February 2009</u>	<u>The Board approved the restructuring of the Core+ 5 Program.</u>
<u>October 2010</u>	<u>The Board adopted the ODCE Real Estate Index instead of the NPI as the Real Estate Program's Benchmark going forward.</u>
<u>October 2010</u>	<u>The Board approved an allocation to Emerging Markets Equities, along with a customized Benchmark for the Program: 5% of Total Equity.</u>
<u>February 2011</u>	<u>NYS Retirement Security Law was amended to increase the amount of assets that can be invested in real property; affecting the basket clause.</u>
<u>June 2011</u>	<u>Updated Asset Allocation to reflect new AA approved by the Board in June 2011 including the addition of certain other asset classes updating the Board's policy expectations in general and within asset classes.</u>
<u>June 2011</u>	<u>The Board adopted the Opportunistic FI IPS to implement the allocation to that asset class.</u>
<u>September 2011</u>	<u>The Board approved allowances for certain Managers to invest in Non-US securities in the REES Program.</u>
<u>October & December 2011, May 2013</u>	<u>Expanded Asset Allocation to update newly adopted rebalancing ranges for all asset classes, to update the cash balance limit for liquidity, and to update "parking places" for unfunded alternative asset classes. The Board also voted to update the "parking place" for Emerging Market Debt.</u>
<u>February 2012</u>	<u>The Actuary secured a legislative change to reduce the Actuarial Investment Rate from 8% to 7% (net of fees), subsequent to a resolution</u>

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	<u>presented to the Board.</u>
<u>April 2012</u>	<u>New Proxy Voting Guidelines and additional methods for communicating with the Proxy Committee were adopted by the Committee.</u>
<u>June 2012</u>	<u>Adopted a sub-allocation to Leveraged Loans, as part of the previously adopted allocation to Enhanced Yield.</u>
<u>September 2012</u>	<u>Board voted to restructure the Non-US Equity portfolio, and added a new allocation to Small Cap EAFE: 10% of the total EAFE Policy allocation.</u>
<u>October 2012</u>	<u>Adopted the updated Private Equity IPS which also changed the Benchmark premium over the Russell 3000 Index.</u>
<u>Dec. 2012</u>	<u>Adopted the Real Assets IPS to include Real Estate and any other Real Asset investments, thus approving an allocation to Infrastructure. The new Real Assets IPS also added an active premium of 100 bps to the RE Benchmark (ODCE). Implementation of the new Infrastructure asset class to be determined.</u>
<u>February 2013</u>	<u>The Board adopted a resolution to prohibit investments in Gun Manufacturers, and to divest from all such investments within the Fund.</u>
<u>April 2013</u>	<u>The Board adopted a resolution to omit the requirement that evaluation counsel is not eligible to serve as litigation counsel in the same matter, thus amending the Securities Litigation Protocol.</u>
<u>June 2013</u>	<u>The Board approved the expansion of the ETI Public/Private Apartment Rehabilitation Program to include additional NYS Counties.</u>

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APPENDIX I - ASSET CLASS AND SPECIFIC POLICIES

1. U.S. Equities
2. International Equities – EAFE Markets
3. International Equities – Emerging Markets
 - A. Emerging Markets – General
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4. U.S. Real Estate Equity Securities
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53. Fixed Income – NYC Core +5 Program
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11. Alternative Investments Policies – Policy Listing and Approved Dates
6. Alternative Investments
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 - b. Responsible Contractor Policy
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| [14. Ethics and Compliance Policy](#)

| [15. Principles of Responsible Investment](#)

1. U.S. Equities

Definition and Purpose

U.S. Equity is defined as common and preferred stock of U.S. and foreign corporations, denominated in U.S. dollars and traded on a U.S. exchange. With a strategic policy weight of 431 %, U.S. Equity is the largest asset allocation of the Fund. At the total fund level it is the primary driver of risk and return for the Fund.

Philosophy and Strategy

The U.S. Equity portfolio is structured to capture exposure to the broad U.S. Equity market as represented by the Russell 3000 Index. The U.S. Equity portfolio is diversified across industries, economic sectors and other appropriate investment characteristics.

The Board primarily employs passive management (index funds) in market sectors that it views as efficient, such as large capitalization stocks. Index funds provide broadly diversified market exposure with controlled market risk and minimal cost. To the extent that active management is used in the large cap sector, the Fund uses enhanced index fund Managers.

The Board employs active Managers for a portion of its investments in less efficient sectors of the U.S. Equity Markets when the Board believes that Managers possess skill identifying companies that may be undervalued or have substantial growth potential that will enable them to capture excess returns relative to the sector benchmark, adjusted for risk and fees. These less efficient sectors would include small and mid cap equities.

Style Allocation:

The U.S. Equity portfolio, in aggregate, is managed in a style- and size-neutral basis.

Use of External Managers

The U.S. Equity Portfolio is implemented through the use of external Managers. Multiple Managers may be used for similar or identical mandates in order to reduce Manager-specific risk. Managers shall be banks, insurance companies, or investment management companies, or investment advisers as defined by the Registered Investment Advisers Act of 1940. Managers are selected in compliance with a competitive RFP process designed to identify Managers with demonstrated ability to implement defined mandates. Managers operate subject to a set of detailed investment guidelines developed by the OTC pursuant to the Board's mandate that outlines the Manager's individual investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities, benchmarks and performance objectives. Active Manager performance objectives are expressed as a positive out-performance of their Benchmark, net of fees. Managers are monitored through the

Watch List process.

Proxy Voting

The Board retains Proxy Voting rights, which are exercised by the OTC in accordance with the TRS Proxy Voting policy.

Asset Class Objectives:

The Board reviews Manager and portfolio performance quarterly. The total U.S. Equity portfolio is expected to marginally outperform the Russell 3000 Index Fund over a full market cycle. Individual Manager performance will be evaluated quarterly and annually in the short-term and over a full market cycle (typically 3-5 years).

Market Sector Allocations

The US Equity sub-allocations are periodically reviewed. The Table below reflects the Asset Allocation last approved by the Board in March 2012 at the sub-asset class level.

	Target Percent of Program	Expected Active Return (gross)
Passive		
Russell 3000	88.5%	0-bp
Total Passive	88.5%	0-bp
Active		
Enhanced Index	6.5%	35-bp
Mid-Cap	3.3%	100-bp
Small Cap	1.7%	200-bp
Total Active	11.5%	78-bp
Total U.S. Equity	100.0%	9-bp

Sector Benchmarks

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	Benchmark	Comparison Universe
Passive		
Russell 3000	Russell 3000 Index	None
Total Passive		
Active		Top Half of:
Enhanced Index	S&P 500	TUCS Large Cap Managers
Mid Cap	Russell Mid Cap Index	TUCS Mid Cap Managers
Small Cap	Russell 2000 Index	TUCS Small Cap Managers
Total Active		
Total U.S. Equity	Russell 3000 Index	None

TRS ⁸		
Style	Policy Target	Expected Active premium (Net)
Large Cap Active	4.00%	100 bp
Large Cap Passive	96.00%	0 bp
Large Cap Total	55.00%	
Mid Cap Active	4.00%	100 bp
Mid Cap Passive	96.00%	0 bp
Mid Cap Total	36.00%	
Small Cap Active	35.00%	200 bp
Small Cap Passive	65.00%	0 bp
Small Cap Total	9.00%	
Subtotal Active	6.80%	
Subtotal Passive	93.20%	
Total	100.00%	10 bp

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Liquidity:

Managers are expected to be fully invested. Index funds are managed with cash levels below 1%. Active Managers are limited to a maximum of 5% cash for trading purposes. As necessary, the OTC may direct Managers to sell securities to fund benefit payments and other eligible System expenses, or as otherwise appropriate for rebalancing purposes.

⁸ The Board has adopted several sub-allocation changes to the US Equity Program over the years, including June 2008, October 2010 and March 2012.

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2. International Equities – EAFE Markets~~Non-U.S. Equity~~

Definition and Purpose

Non-U.S. Equity is defined as common and preferred stock of foreign corporations domiciled in developed markets, denominated in foreign currency and traded on foreign exchanges.

Philosophy and Strategy

The Non-U.S. Equity portfolio is structured to capture exposure to the broad non-U.S. Equity market as represented by the MSCI EAFE (Europe, ~~Asia-Australasia~~ & Far East) Index. The Non- U.S.- Equity portfolio is to be diversified across countries, industries, economic sectors and other appropriate investment characteristics.

Historically, over long periods of time Non-U.S. Equity Managers have outperformed the EAFE index adjusted for risk and fees. Therefore, the Board has allocated the ~~entire allocation portfolio~~ to be split 90% active and 10% passive⁹ Managers.

Also, In September 2012, the Board voted to add a Small Cap EAFE allocation to its portfolio, to represent 10% of the Non-US Equity allocation.

Style Allocation:

The Non-U.S. Equity portfolio, in the aggregate, is managed in a style-neutral basis. However, due to the structure of the EAFE index and active Managers' styles, the Fund has a large-cap bias.

Use of External Managers

The Non-U.S. Equity Portfolio is implemented through the use of external Managers. Managers shall be banks, insurance companies, investment management companies, or investment advisers as defined by the Registered Investment Advisers Act of 1940. Managers are selected in compliance with a competitive RFP process designed to identify Managers with demonstrated ability to implement defined mandates. Managers operate subject to a set of detailed investment guidelines developed by the OTC pursuant to the Board's mandate. The guidelines outline the Managers' individual investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities, benchmarks and performance objectives. Managers are monitored through the Watch List process.

Proxy Voting

⁹ In September 2012, the Board voted to re-structure the Non-US Equity portfolio, including a specific allocation to Small Cap EAFE.

Proxies are voted by the Managers.

Asset Class Objectives:

The Board reviews portfolio performance quarterly. The total Non-U.S. Equity portfolio is expected to outperform the EAFE index by 200 basis points per year gross of fees over a full market cycle and the comparison universe is the top half of the TUCS Non-US equity managers. Individual Manager performance will be evaluated quarterly and annually in the short-term and over a full market cycle (typically 3-5 years).

Liquidity:

The Non-U.S. Equity portfolio is not a source of liquidity for the Fund, although benefits may be paid out of the portfolio as required. Managers are expected to be fully invested. Index funds are managed with cash levels below 1%. Active Managers are limited to a maximum of 7% cash for trading purposes. As necessary, the OTM may direct Managers to sell securities to fund benefit payments and certain other eligible system expenses, or as otherwise appropriate for rebalancing purposes.

Currency Hedging:

Managers are permitted to hedge a portion of their currency exposure. Hedging may only be used for defensive purposes and not as a form of leverage.

3. International Equities – Emerging Markets¹⁰

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A. Emerging Markets - General

Definition and Purpose

Emerging Markets Equity securities are defined as common and preferred stock of foreign corporations domiciled in countries included in the MSCI Emerging Markets Free Index (gross) denominated in foreign currency and traded on foreign exchanges. It may also include Emerging Market American Depositary Receipts (ADRs) or Global Depositary Receipts (GDRs) denominated in U.S. dollars.

Philosophy and Strategy

In making the decision to invest in Emerging Markets, the TRS Board of Trustees was guided by the principle that a well-diversified portfolio will, over time, add value to the

¹⁰ The Board approved an allocation to Emerging Markets Equities in October 2010.

portfolio while reducing overall portfolio risk. Emerging markets currently represent approximately 86% of the world's population and approximately 35% of its GDP. Over the long-term, these markets are expected to generate attractive returns and grow in importance in the world's economy. These returns, however, are expected to continue to be subject to greater volatility than in more mature economies.

The Emerging Markets Equity portfolio is structured to capture broad exposure to the high growth economies of developing countries. There are higher risk-adjusted expected returns and higher volatility (as measured by standard deviation) from this class of investment.

The Board has adopted an Investable Country policy. The policy is described below in the "Emerging Markets Policy Statement." The Emerging Markets policy provides for a screen of the universe of emerging markets in order to select countries with positive investment attributes, and requires Managers to individually justify investments in companies based in countries excluded by the screen.

Historically over long periods of time, Emerging Markets Equity Managers have outperformed the MSCI Emerging Equity Markets Free Index (gross) adjusted for risk and fees. The Board will look for exposure to emerging markets equities through both active and passive managers. Assets allocated to active management may be invested in custom passive index funds until appropriate active managers are selected and funded.

Style Allocation:

The Emerging Markets Equity portfolio, in the aggregate, is managed in a style-neutral basis.

Proxy Voting

Proxies are voted by the Managers. BAM monitors managers' proxy voting policies and guidelines at least annually and reviews proxy-voting reports quarterly.

Asset Class Objectives:

The total Emerging Markets Equity portfolio is expected to outperform an index of countries included in the investable universe under TRS Emerging Market policy index over a full market cycle. Individual Manager performance will be evaluated monthly, quarterly and annually in the short-term and over a full Manager Market Cycle.

Sector Benchmarks

	<u>Benchmark</u>	<u>Comparison Universe</u>
<u>Active</u>	TRS Custom Emerging Markets Index	<u>None</u>

Liquidity:

The Emerging Markets Equity portfolio is not a source of liquidity for the Fund, although benefits may be paid out of the portfolio as required. Active Managers are limited to a maximum of 5% cash for trading purposes, while passive managers should maintain cash levels below 1%.

Currency Hedging:

Managers are permitted to hedge a portion of their currency exposure. Hedging may only be used for defensive purposes and not as a form of leverage.

B. Emerging Markets Policy Statement – Adopted October 2010

In October 2010, the Teachers Retirement Board (TRS) allocated a portion of the System's investments to emerging markets.

Emerging markets may lack the political, social and economic structures necessary for a stable investment environment. Many of these structures, such as legal protections, liquidity and transparency in the securities markets, democratic institutions, including an independent judiciary and a free press, as well as labor rights, worker health, safety, and environmental protections, are still being developed in many emerging market countries.

Accordingly, TRS' Board of Trustees has developed this Policy Statement to increase the likelihood that the System's emerging markets investments will generate added value while helping to reduce the higher levels of risk associated with this investment class.

Active Management

Emerging market countries may suffer from relatively weak democratic institutions, limits on the free flow of information, and political manipulation of financial markets. In addition, informed investment decisions in emerging markets require a significant level of research and monitoring. Therefore, TRS has concluded that it would be more effective and prudent to invest in emerging markets through active management pursuant to this Policy Statement. Assets allocated to active management may be invested in custom passive index funds until appropriate active managers are selected and funded.

Therefore, the Board maintains a large allocation to passive management until such time as highly rated closed managers reopen, to allow for a higher allocation to active managers at that time.

Country Screens

TRS believes that a number of variables should be considered prior to an emerging market country being considered investable. Taken together, these variables would help to define the emerging market investable universe, and to set the parameters for investment in companies that operate in these countries.

The country variables should include:

- Market liquidity and volatility.
- Transparency.
- Market regulation.
- Investor protections/corporate governance.
- Investment restrictions.
- Political stability/rule of law/independent judiciary.
- Economic stability/wealth-income distribution.
- Settlement proficiency.
- Transaction costs.
- Existence and enforcement of worker health & safety protection, labor and environmental statutes/codes at the country level, including ILO Core Conventions.

The Board utilizes an outside Consultant to develop and implement a screening process to determine the investability of emerging market countries. The list of investable countries will be updated at least annually, and adopted by resolution of the Board. The most recent such resolution is attached to, and forms a part of, this Policy Statement.

Emerging Markets Equity Investment Managers shall only invest in countries determined to be investable pursuant to the rating system, unless the Manager, after due diligence, concludes that substantial, overriding reasons exist for a particular investment. Before making an investment in any emerging market company, a Manager must document that the company being considered for investment implements reasonable health and safety, labor rights, and environmental standards and protections for its workers.

Proxy Voting and Shareholder Proposals

TRS has long been active as a shareholder pursuing a wide-range of initiatives on corporate governance and corporate responsibility. To the degree necessary and practicable, such activity should be continued and expanded as part of the Board's decision to invest in emerging markets. TRS therefore plans to strengthen its shareholder activity concerning U.S. corporations doing business in emerging markets countries. In particular, this shareholder activity should focus on the implementation of workplace health and safety, labor and environmental standards and protections.

43. U.S. Real Estate Equity Securities¹¹

¹¹ The Board approved allowances for certain Managers to invest in Non-US securities in the REES Program in September 2011.

Definition and Purpose

The ~~U.S.~~ Real Estate Equity Securities (REES) program is dedicated to equity and convertible securities of U.S. real estate companies, defined as: (i) real estate investment trusts organized under the laws of any state of the United States ("REITS") ~~or under the laws of a developed market non- U.S. country~~; (ii) entities organized under the laws of any state of the United States, ~~or~~ province of Canada, ~~or developed market non- U.S. country~~ that, directly or indirectly, are self-managed operating companies (REOCs), that at the time of purchase: (x) derive at least 50% of their revenue or profits from the ownership, construction, management, financing or sale of ~~U.S.-domiciled~~ residential, commercial or industrial real estate, or (y) have at least 50% of the fair market of their assets invested in ~~U.S.-domiciled~~ residential, commercial or industrial real estate.

The strategic policy weight for the REES program is ~~43~~%.

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Philosophy and Strategy

The REES program is structured to capture exposure to the ~~U.S.~~ REIT and REOC markets as represented by the ~~Dow Jones U.S. Select Wilshire~~ Real Estate Securities Index. The REES program is diversified across property types and sectors, geographical regions, and other appropriate investment characteristics. Additionally, equity securities of ~~Developed market non-U.S., Canadian~~ real estate companies may be purchased to a limited degree.

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Historically over long periods of time, managers of real estate securities have outperformed the ~~Dow Jones U.S. Select Wilshire~~ Real Estate Securities Index adjusted for risk and fees. Therefore, the Board has allocated the entire REES portfolio to active Managers.

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Use of External Managers

The REES program is implemented through the use of external Managers. Managers shall be banks, insurance companies, or investment management companies, or investment advisers as defined by the Registered Investment Advisers Act of 1940. Managers are selected in compliance with a competitive RFP process designed to identify Managers with demonstrated ability to implement defined mandates. Managers operate subject to a set of detailed investment guidelines developed by the OTC pursuant to the Board's mandate. The guidelines outline the Manager's individual investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities, benchmarks and performance objectives. Managers are monitored through the Watch List process.

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Proxy Voting

▲ The Board retains proxy voting rights, which are exercised by ~~ote~~ OTC in accordance with the TRS proxy voting policy.

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Asset Class Objectives

▲ Trustees review manager and portfolio performance quarterly. The total REES program, net of fees, is expected to outperform the Dow Jones U.S. Select Wilshire Real Estate Securities Index by 200 basis points per year gross of fees over a full market cycle. Individual manager performance will be evaluated quarterly, annually, and over a full market cycle (typically 3-5 years).

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Liquidity

▲ The REES program is generally not a source of liquidity for the Fund, although, benefits may be paid out of the portfolio as required. Managers are expected to be fully invested, and are limited to a maximum of 5% cash for trading purposes. As necessary, OTC may direct Managers to sell securities to fund benefit payments and certain other eligible system expenses, or as otherwise appropriate for rebalancing purposes.

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54. Fixed Income: NYC Core +5 Program¹²

Definition and Purpose

Fixed income securities are bonds and other debt securities such as mortgage-backed securities, most paying interest on a current basis. TRS' Fixed Income allocation consists of the Core + 5 Portfolio, the Enhanced Yield Portfolio – including an allocation to leveraged loans, the Convertibles Portfolio, the Emerging Markets Debt Portfolio, the Opportunistic Fixed Income Portfolio, the TIPS Portfolio, and the Fixed Income portion of the ETI Program. The Core +5 Program is the dominant TRS Fixed Income Program, the second largest investment program after U.S. Equity. It is a driver of return and diversification at the total fund level. While the explicit objective is total return, given the fundamental nature of fixed income – relatively predictable income and principal payouts – it also extends the duration of the total fund to better match liabilities, and may be used to provide cash for benefit payments if the portfolio is otherwise within rebalancing ranges.

Most of the securities of the Fixed Income Programs are registered in the U.S. 144 A securities, Global bonds, and Eurodollar bonds may be permitted investments.

Philosophy and Strategy

The Core +5 Program is benchmarked to a customized version of the Citigroup ~~(formerly Salomon Smith Barney)~~ U.S. Broad Investment Grade Index (the "BIG Index"), known as the NYC Core +5 Index. The NYC Core +5 index comprises sub-indices for ~~four~~ three sectors: (1) U.S. Treasury and Agency issues excluding one to five-year maturities; (2) mortgage backed securities; and (3) ~~U.S. corporate bonds; and (4) Yankee bonds (including Canadians and Supranationals)~~ Investment Grade Credit. The total allocation to each sector mirrors that sector's proportion of the custom NYC Core +5 Index, which is revised by Citigroup monthly to reflect market changes.

Concurrent with the implementation of the results of an RFP, the Investment Grade Credit Sector was created by combining the previously existing Corporate and Yankee sectors.

The Core + 5 Program is implemented through a sector specialist program, in which Managers are selected for mandates benchmarked to one of the sub-indices. Managers may employ index-like, enhanced index, or active approaches within their sector. Major characteristics of the ~~four~~ three sectors are:

¹² The Board approved the restructuring of the Core +5 Fixed Income Program in February 2009, reducing the sub-indices from four sectors, among other changes.

- **U.S. Government:** Consists primarily of U.S. Treasury and Agency debt. Does not include mortgage-backed securities. Managers are permitted to invest in Supranationals to a very small degree. Securities of any maturity may be used, provided that the weighted average duration of the portfolio is within a range of –1.0 year and + 0.5 year of the Citigroup Core +5 Treasury/Government Sponsored Index, which includes only those securities with a maturity in excess of five years.

— **Mortgage-Backed Securities (MBS):** Consists primarily of Agency mortgage pass-throughs and Agency and non-agency securities collateralized by mortgage pass-throughs. Managers are permitted to invest in certain non-benchmark sectors and security types. Securities of any maturity may be used, provided that the weighted average duration of the portfolio is within 0.75 year of Citigroup's standard Mortgage Index, which includes GNMA, FNMA and FHLMC mortgage pass-throughs.

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Investment Grade Credit: U.S.-dollar denominated debt securities of domestic corporations and foreign and Supranational entities rated BBB- or higher. Managers are permitted to invest in certain non-benchmark securities to a limited degree, including 10% in high yield securities. Securities of any maturity may be used, provided that the weighted average duration of the portfolio is within +/- 0.5 years of the customized Citigroup Investment Grade Credit Index (which combines the former Domestic Corporate Index and Yankee Index), and includes industrial, utility, financial, asset-backed and credit-enhanced securities.

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~~• **Domestic Corporate:** Consists of debt securities of domestic corporations primarily rated BBB- or higher. Managers are permitted to invest in certain non-benchmark securities to a limited degree, including up to 10% in high yield securities. Securities of any maturity may be used, provided that the weighted average duration of the portfolio is within 0.5 year of the customized Citigroup Domestic Corporate Index, which includes industrial, utility, financial, and asset-backed securities but excludes Canadian and Yankee securities.~~

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~~• **Yankee:** Consists of U.S.-dollar denominated debt securities of foreign, Canadian, and Supranational entities. Managers are permitted to invest in certain non-benchmark securities to a limited degree, including up to 10% in high yield securities. Securities of any maturity may be used, provided that the weighted average duration of the portfolio is within 0.5 year of the customized Citigroup non-U.S. BIG Index, which includes foreign, Canadian and Supranational securities.~~

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The Program is implemented through the use of external Managers. Managers are selected in compliance with a competitive RFP process designed to identify firms with demonstrated ability to implement defined mandates. Managers operate subject to a set of detailed investment guidelines developed by the OTC pursuant to the Board's mandate that outlines the Managers' individual investment philosophies and

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approaches, representative portfolio characteristics, permissible and restricted securities, benchmarks and performance objectives. Subject to constraints contained in guidelines issued by the OTC pursuant to Board mandates, value may be added through:

- Duration management, within stated constraints
- Sub-sector weights (within specified ranges of the benchmark weights)
- Security selection, including certain securities/issuers not specifically included in the benchmark

Managers are monitored through the Watch List process.

Asset Class Objectives:

- The Board reviews Manager and portfolio performance quarterly. The total Core +5 Program is expected to outperform the custom index over a full market cycle, as indicated below. Individual Manager performance expectations vary, as each employs a distinct approach that may be categorized as index-like, enhanced index or active.

Each Manager will be evaluated quarterly, annually and over a full market cycle (typically 3-5 years).

Market Sector Allocations

Core + 5 Program	Percent of Program (as of 63/304/1306)	Expected Active Return (gross)
Government +5	18.63 24%	
Mortgage-backed	40.04 6%	
Domestic Corporate Investment	41.33 25%	
Grade Credit Yankee	8 %	
Total Core +5	100.00%	20 bp

Market sector allocations are adjusted monthly by the benchmark provider, Citigroup, to reflect market weight. The Fund policy is to be neutral to the benchmark/market.

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Liquidity and Cash Management:

As a fixed income alternative, cash equivalents (or “*short-term fixed income*”) are integral to managing risk in fixed income portfolios duration. Fixed Income Managers, unlike the Equity Managers, are given wider latitude to use cash equivalents. Government Sector Managers have no explicit limits on cash; however the relatively long duration requirements for this sector indirectly limit the Managers’ use of cash equivalents. Corporate and Yankee Sector Managers are allowed to invest up to 10% in cash. MBS Sector Managers are also allowed to invest up to 10% in cash; however, they may hold significantly more cash to back a widely used MBS instrument (“TBA”). These large cash balances, nonetheless, are not considered an immediate source of liquidity. As necessary, the OTC may direct Managers to sell securities to fund benefit payments and certain other eligible System expenses, or as otherwise appropriate for rebalancing purposes.

65. Fixed Income: Enhanced Yield Program (includes Leveraged Loans sub-sector)¹³

Definition and Purpose

Fixed income is defined as bonds and other debt securities, most paying interest on a current basis. While most securities are registered in the U.S., the NYC Fixed Income

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¹³ In June 2012, the Board voted to adopt a sub-allocation to Leveraged Loans and adopted appropriate IPS language for the new Program.

Programs allow for use of 144 A securities, Global bonds, and Eurodollar bonds. In the Enhanced Yield Program (traditionally referred to as “high yield,” or “non-investment grade”), most securities are denominated in \$U.S, while a small allocation is permitted for \$Canada-denominated issues. Additionally, deferred-interest securities that do not pay interest on a current basis (such as zero-coupon bonds) are permitted. The high yield sector has equity-like features, including convertible securities, preferred stocks, and warrants. Common stock may appear in traditional high yield portfolios as a result of debt restructuring. The characteristics of the high yield sector may be viewed as a cross between traditional bonds and stocks. The objective of the Enhanced Yield Program is total return. ~~It is the second oldest and second largest fixed income program, with a current policy weight of 6%.~~

Within the overall Enhanced Yield program, the Leveraged Loans program (also known as “Bank Loans”) has been established as a sub-sector and is designed to invest up to one-third of total Enhanced Yield as described in the Asset Allocation section.

Philosophy and Strategy

The Enhanced Yield Program employs a variety of external Managers with active management approaches. The Program benchmark and the benchmark for most of TRS' Managers is the Citigroup (formerly Salomon Smith Barney) BB & B Index. It is a subset of the widely-used Citigroup High Yield Index and excludes securities with ratings of only CCC or lower. The index includes only securities of U.S. and Canadian corporations. As appropriate, an individual Manager's benchmark may be different from the Program benchmark, depending on the Manager's investment approach.

Managers are selected in compliance with a competitive RFP process designed to identify firms with demonstrated ability to implement defined mandates. Managers operate subject to a set of detailed investment guidelines developed by the OTC pursuant to the Board's mandate that outlines the Managers' individual investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities, benchmarks and performance objectives.

Subject to guideline limitations (which may vary modestly by Manager due to stylistic differences), value may be added through:

- Industry / sector allocation
- Quality sector allocation
- Security selection, including certain securities/issuers not specifically included in the benchmark, such as convertibles and investment-grade
- However; direct purchase of defaulted securities and securities of bankrupt companies are explicitly prohibited.

- Cash equivalents may be used on a limited basis
- Duration decisions are not expected to be a notable contributor to performance

Managers are monitored through the Watch List process.

Asset Class Objectives:

The Board reviews portfolio performance quarterly. The total Program is expected to outperform the Citigroup BB& B Index over a full market cycle, and the expected active return is 125 basis points. Individual Manager performance expectations vary, as each employs a distinct approach. Each Manager will be evaluated quarterly, annually and over a full market cycle (typically 3-5 years).

Liquidity and Cash Management:

The Enhanced Yield Program is not a source of liquidity for the Fund, although, benefits may be paid out of the portfolio as required. Typically, cash equivalents are integral to managing the interest rate risk in fixed income portfolios. However, for high yield, interest rate risk is less of a consideration than for investment-grade bond portfolios like those in TRS' main Core + 5 Program. Nevertheless, as the high yield asset class is heavily dependent on new security issuance and may be characterized by extended periods of relative illiquidity (as compared to the U.S. equity market), the Enhanced Yield Managers have been given more latitude to hold cash – the maximum is 8%. As necessary, the OTC may direct Managers to sell securities to fund benefit payments and certain other eligible System expenses, or as otherwise appropriate for rebalancing purposes.

7. Fixed Income: Leveraged Loans¹⁴

Definition and Purpose

Fixed income is defined as bonds and other debt securities, most paying interest on a current basis. While most securities are registered in the U.S., the NYC Fixed Income Programs allow for use of 144 A securities, Global bonds, Eurodollar bonds and Leveraged Loans. In the Leveraged Loans Program (also referred to as "Bank Loans"), most securities are denominated in \$US. Common stock may appear in traditional Leveraged Loans portfolios as a result of debt restructuring. The characteristics of the Leveraged Loans sector may be viewed as a cross between Core +5 and High Yield and securities are typically non-investment grade and senior debt obligations in an

¹⁴ In June 2012, the Board voted to adopt a sub-allocation to Leveraged Loans and adopted appropriate IPS language for the new Program.

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entity's capital structure. Typically, Leveraged Loans are floating rate debt obligations. The objective of the Leveraged Loans Program is total return.

Philosophy and Strategy

The Leveraged Loans Program employs a variety of external Managers with active management approaches. The Program benchmark is the Credit Suisse Leveraged Loans Index, which includes mostly BB, B, CCC and non-rated securities. The index includes only securities denominated in US dollars. As appropriate, an individual Manager's benchmark may be different from the Program benchmark, depending on the Manager's investment approach which could include securities denominated in currencies other than the US dollar.

Managers are selected in compliance with a competitive RFP or search process designed to identify firms with demonstrated ability to implement defined mandates. Managers operate subject to a set of detailed investment guidelines developed by the Comptroller's Bureau of Asset Management pursuant to the Board's mandate that outlines the Managers' individual investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities, benchmarks and performance objectives.

Subject to guideline limitations (which may vary modestly by Manager due to stylistic differences), value may be added through:

- Industry / sector allocation
- Quality sector allocation
- Security selection, including certain securities/issuers not specifically included in the benchmark
- Direct purchase of defaulted securities and securities of bankrupt companies is generally prohibited
- Cash equivalents may be used
- Duration decisions are not expected to be a notable contributor to performance

Managers are monitored through the Watch List process.

Asset Class Objectives

At a minimum, Trustees review portfolio performance quarterly. The total Program is expected to outperform the Credit Suisse Leveraged Loan Index over a full market cycle by a minimum 100 basis points (gross). Individual Manager performance expectations vary, as each employs a distinct approach. Each Manager will be evaluated quarterly, annually and over a full market cycle (typically 3-5 years).

Liquidity and Cash Management

The Leveraged Loans Program is generally not a source of liquidity for the Fund, although, benefits may be paid out of the portfolio as required. Typically, cash equivalents are integral to managing the interest rate risk in fixed income portfolios. However, for Leveraged Loans, interest rate risk is less of a consideration than for investment-grade bond portfolios like those in NYCRS' main Core + 5 Program due to the floating rate nature of most of the securities. Nevertheless, as the Leveraged Loans asset class is heavily dependent on new security issuance and may be characterized by extended periods of relative illiquidity (as compared to the U.S. equity market), the Leveraged Loans Managers have been given more latitude to hold cash. As necessary, BAM may direct Managers to sell securities to fund benefit payments and certain other eligible System expenses, or as otherwise appropriate for rebalancing purposes.

86. Fixed Income: U.S. TIPS Program

Definition and Purpose

Fixed income is defined as bonds and other debt securities, most paying interest on a current basis. In the U.S. TIPS Program, U.S. Treasury Inflation-Protected Securities will be the predominant holding, and most other securities will also be denominated in \$U.S. Limited use of inflation linked bonds (ILBs) of foreign developed-market sovereigns will be permitted. The U.S. TIPS Program ~~is the newest TRS fixed income program and at 4% is one of the smallest.~~ Its primary purpose is to hedge inflation (as measured by the CPI - U) and, secondarily, to provide diversification.

Philosophy and Strategy

The U.S. TIPS Program will be managed using a combination of index and active management approaches. The policy mix is 25% passive/75% active. The Program

and individual Managers' benchmark is the ~~Lehman-Barclays Capital~~¹⁵ U.S. ~~TIPS~~ Inflation-Linked Index, which is comprised of all outstanding TIPS of the U.S. Treasury.

The Program will be implemented through the use of external Managers. Managers are selected in compliance with a competitive RFP process designed to identify firms with demonstrated ability to implement defined mandates. Managers operate subject to a set of detailed investment guidelines developed by the OTC pursuant to the Board's mandate that outlines the Managers' individual investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities, benchmarks and performance objectives. The portfolio of the passive (or index) Manager will mirror the benchmark index with minimal tracking error; value may be added through trading strategies. Subject to constraints contained in guidelines issued by the Comptroller, which may change over time, the active Managers may add value through:

- Duration and yield curve management
- Individual U.S. TIPS weightings that vary from the benchmark
- Use of nominal U.S. Treasury and inflation-indexed U.S. Agency securities
- Use of inflation linked bonds (ILBs) of foreign developed-market sovereigns, however the position must be hedged back to \$U.S. Foreign inflation linked corporate and agency bonds are not permitted.
- Cash equivalents may be used on a limited basis

Managers will be monitored through the Watch List process.

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Asset Class Objectives

The Board reviews portfolio performance quarterly. The total U.S. TIPS Program is expected to exceed the inflation rate and to outperform the ~~Lehman BrothersBarclays Capital~~ U.S. ~~TIPS~~ Inflation-Linked Index over a full market cycle, as indicated below.

Individual Manager performance expectations vary, as each employs a distinct approach that may be categorized as index or active. Each Manager will be evaluated quarterly, annually and over a full market cycle (typically 3-5 years).

¹⁵ Barclays Capital has taken over the Lehman Indices after Lehman Brothers went out of business.

Market Sector Allocations

U.S. TIPS Program	Percent of Program	Expected Active Return (gross)
Active Managers	75%	
Passive (Indexed) Managers	25%	
Total U.S. TIPS Program	100%	55 bp

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Liquidity and Cash Management:

The U.S. TIPS Program is not a source of liquidity for the Fund, although, benefits may be paid out of the portfolio as required. As a fixed income alternative, cash equivalents are integral to managing risk in fixed income portfolios through portfolio duration. Active Fixed Income Managers, unlike Equity Managers, are given wider latitude to use cash equivalents. The U.S. TIPS Index Manager will be permitted to hold up to 2% cash and the active Managers, up to 20%.

9. Fixed Income: Convertible Bonds¹⁶

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Definition and Purpose

A convertible bond has the characteristics of two types of securities: a bond and an equity option. Convertible bonds are issued by publicly held companies and come in a variety of forms. At the simplest level, they combine a corporate bond paying a fixed interest rate with an equity warrant (a long term equity call option) on the issuer's common stock. The bonds are senior to equity in a company's capital structure. The allocation of the Fund to this sub-asset class is 3% of the value of the total Fund.

Convertible bonds have higher expected returns and higher risk than conventional corporate bonds. The link to equity volatility through the equity option adds an extra return driver that is not available from a portfolio of stocks and bonds alone. The convertible bond market can be relatively inefficient and therefore provides opportunities for total return oriented investors such as the Fund. The primary purpose of the program is to provide a higher total return than the corporate bond market with less volatility than the equity market, in addition to providing diversification.

Philosophy and Strategy

The Convertible Bond Program employs a variety of external Managers with active

¹⁶ The Board adopted a 1% allocation to Convertible Bonds in January 2008, and subsequently increased it in the Asset Allocation study.

management approaches. The Program benchmark is the Bank of America Merrill Lynch All U.S. Convertibles ex-Mandatory Index. As appropriate, an individual Manager's benchmark may be different from the Program benchmark, depending on the Manager's investment approach.

Subject to guideline limitations (which may vary modestly by Manager due to stylistic differences), value may be added through:

- Industry / sector allocation
- Quality sector allocation
- Security selection, including certain securities/issuers not specifically included in the benchmark

Cash equivalents may be used on a limited basis. Duration decisions are not expected to be a notable contributor to performance.

Asset Class Objectives:

Trustees review portfolio performance at least quarterly. The total Program is expected to outperform the Bank of America Merrill Lynch All U.S. Convertibles ex-Mandatory Index over a full market cycle. Individual Manager performance expectations vary, as each employs a distinct approach. Each Manager will be evaluated quarterly, annually and over a full Manager Market Cycle.

Liquidity and Cash Management:

The Convertible Bond Program is not typically a source of liquidity for the Fund, although, benefits may be paid out of the portfolio as required. Typically, cash equivalents are integral to managing the interest rate risk in fixed income portfolios. However, for convertibles, interest rate risk is less of a consideration than for investment-grade bond portfolios like those in the Fund's main Core + 5 Program. Nevertheless, as the asset class is heavily dependent on new security issuance and may be characterized by extended periods of relative illiquidity (as compared to the U.S. equity market), the Convertible Bond Managers have been given more latitude to hold cash – the maximum is 5%.

10. Fixed Income – Emerging Markets Debt¹⁷

Definition and Purpose

As part of the recently adopted asset allocation, The TRS adopted an allocation to emerging market debt as part of the Fixed Income allocation. As the asset class is currently being created, there are no specific details – as with the other asset classes included herein.

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11. Alternative Investments Policies:

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PRIVATE EQUITY INVESTMENTS POLICY; ADOPTED OCTOBER 4, 2012. SEE APPENDIX #3 FOR THE POLICY

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REAL ASSETS EQUITY INVESTMENTS POLICY; ADOPTED DECEMBER 6, 2012. SEE APPENDIX #4 FOR THE POLICY

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ECONOMICALLY TARGETED INVESTMENTS POLICY; ADOPTED NOVEMBER 6, 2008. SEE APPENDIX #5 FOR THE POLICY

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OPPORTUNISTIC FIXED INCOME INVESTMENTS POLICY; ADOPTED JUNE 2, 2011. SEE APPENDIX #6 FOR THE POLICY

¹⁷ As part of the Board's asset allocation decision in June 2011, the Board adopted a new allocation to this asset class.

7. Alternative Investment

Purpose of Alternative Investments Policy

The purpose of this Alternative Investments Policy (the “Policy”) for TRS is to establish the parameters by which TRS may invest through its Alternative Investments Program (the “Program”), to ensure that the Managers, Advisors, Consultants and other external resources retained by TRS adhere to the investment principles and guidelines of the Board, while preserving the flexibility necessary to accomplish its mandates while minimizing risk and correlation, maximizing diversification and consequently minimizing volatility and maximizing risk-adjusted returns.

Objectives of Alternative Investments

TRS has mandated investments in Alternative Investments in general, and the private equity asset class in particular:

- To increase the diversification of its assets.
- To take advantage of the ability to accept illiquidity in the short term in exchange for an illiquidity premium.
- To provide an opportunity to invest in securities with a relatively lower correlation with the performance of the public markets.
- To take advantage of quality Managers who are able to transform the asymmetries of information and high transaction costs which characterize the market for Alternative Investments into excess returns.
- To reduce the volatility and increase the risk-adjusted returns of the overall portfolio of TRS.

TRS also expects that commitments to and investments in Alternative Assets will establish, maintain and continually improve the reputation of TRS as an investor, and that TRS will make both continuous use of and contributions to the best practices of investors in Alternative Investments. TRS will seek investments in which the proposer demonstrates a commitment to standards of good conduct, including compliance with all Federal, State and local laws, including, but not limited to, labor, anti-discrimination, environmental, and health and safety laws, and will reject investments that would serve to embarrass investors or bring public or regulatory scrutiny. TRS encourages the submission of proposals for review from proposers that demonstrate a strong commitment to diversity in their firms.

Alternative Investments are non-traditional investments made with the objective of achieving returns that are greater than those earned in the traditional public equity and debt markets. Alternative asset class components may be broadly categorized as (1)

~~non-marketable, illiquid assets, and (2) marketable, liquid securities managed in a nontraditional format. Special debt, private equity, (including venture capital) real estate-related investments, oil and gas, as well as timber, are examples of non-marketable assets. Risk arbitrage, commodities and derivatives are examples of the more liquid alternative asset types.~~

~~The operation of the Program is subject to the exclusive benefit rule and all other applicable laws, including requirements of prudence.~~

Asset Allocation

~~The asset allocation study conducted in 2003 authorized a 4% market value exposure to private equity and the Board recognizes it will take years to achieve this market value exposure. As commitments to private equity partnerships are drawn over time, they necessarily must exceed the target market value exposure in a mature portfolio.~~

Responsibilities and Delegation

Role of the Board

~~The Board shall approve this Policy no less than biennially. In addition, the Board shall:~~

- ~~• Annually approve an Annual Plan.~~
- ~~• Approve the retention of financial, record-keeping/monitoring/reporting and strategic Consultants and Advisors ("Consultants") and other external resources.~~
- ~~• Approve the retention of outside legal counsel.~~
- ~~• Oversee performance.~~
- ~~• Approve investments.~~
- ~~• Delegate investment approval authority as appropriate.~~

Role of the Comptroller's Office Staff

~~The duties of OTC Staff ("Staff") include, but are not limited to:~~

- ~~• Recommending changes in the Policy to the Board, developing and implementing an Annual Plan, and managing the operations of the Program;~~
- ~~• Proposing, issuing and evaluating responses to RFPs for the selection of Consultants and making selection recommendations to the Board;~~

- Managing TRS's existing portfolio of Alternative Investments, including management of Consultants;
- Managing TRS's relationships with Consultants and other external resources, to ensure that TRS obtains the maximum value from those relationships;
- Performing, managing and supervising due diligence on and recommending commitments of capital to Alternative Investments, subject to the Policy and the Annual Plan, to the Board;
- Notifying the Managers of prospective investment vehicles, in writing, as promptly as practicable following the decision of the Board to make a commitment of capital to an investment vehicle; and
- Monitoring and reporting to the Board on investment performance.

The duties of the Comptroller's Office Legal staff include, but are not limited to:

- Reviewing Alternative Investment policy and any other policies developed as part of the Program
- Reviewing Alternative Investment procedures.
- Participating in procurement of Consultants and other necessary experts.
- Implementing directions from the Board regarding the retention of outside legal counsel and other Consultants.
- Managing retained outside counsel sufficiently experienced and expert in the form of the Alternative Investment under consideration.
- Conducting legal due diligence in conjunction with outside counsel, which diligence shall include a review of proposed investments for statutory and regulatory compliance on a case-by-case basis.
- Working with outside counsel in reviewing and negotiating all contracts.
- Assisting Staff and rendering legal advice regarding any developments occurring during the life of the investment.
- Assisting Staff and rendering general legal advice on the development and implementation of the Program.

Role of Consultants

TRS and the Program shall retain Consultants to assist them in:

- Developing and implementing strategy and an Annual Plan (see below);
- Performing due diligence on and recommending commitments of capital to Alternative Investments, subject to the Policy and the Annual Plan, to the Staff;
- Assisting Staff in identifying, negotiating and executing commitments and investments;
- Fulfilling such other purposes as the Board may approve.

Performance Benchmarking

The performance of the Program shall be measured against at least two benchmarks:

- Opportunity cost*: the long-term performance of investments made through the Program and of the Program as a whole shall be measured against the ten-year average of the Russell 3000 + 500 basis points. The index shall be modified to reflect the Program's actual cash flows;
- Relative performance*: the performance of individual investments made through the Program and of the Program as a whole shall be measured against other similar Alternative Investments as reflected in the Venture Economics Median Index or a similar measure. Staff shall report regularly to the Board on performance of individual investments and of the Program.

Investment Operations

General Approach

The Staff shall review and manage investments using a disciplined but opportunistic management strategy. Guided by the Annual Plan (see below), Staff shall use a “top-down” approach to making assessments as to appropriate strategic weightings within the portfolio. Staff then shall seek to identify the most attractive investment opportunities available consistent with the Annual Plan and with the goal to be diversified prudently across strategies, industries, partnerships and geography.

Annual Plan

Staff shall present to the Board for its approval an Annual Plan that shall provide guidance to the Staff in the management, operations and investments of the Program.

Portfolio analysis/construction

The Annual Plan shall include an elaboration of a target strategic allocation within the private equity asset class. The categories and allocation ranges initially shall be:

Strategy Allocation

Corporate finance 50-60%
 Venture capital 20-30%
 Special situations/distressed investing 0-10%
 Mezzanine finance 0-10%
 Other (secondaries, etc.) 0-10%

Pacing

The Annual Plan shall include an identification of an optimal average commitment size to be made by the System within each strategy as well as a total target commitment for TRS within each strategy (the "Pacing Analysis") in order to achieve both the target strategic allocation and the overall allocation to the Alternative Investments asset class. The Pacing Analysis shall take into account TRS's overall allocation to and investments in the Alternative Investments asset class, within each strategy, across industries and geography, and by vintage as well as the market environment and such other considerations as are appropriate. The Program shall strive to avoid inappropriate concentrations in strategies, industries, geographic areas, funds, Managers or vintage years.

Investment Guidelines

Strategic Allocations

Investments made under the Program shall be made in accordance with the Annual Plan.

Prohibited Investments

Direct co-investments, direct investments, strategic investments in Managers, hedge fund investments and derivative investments are not permitted. To the extent possible, investments in partnerships, which plan to make investments in companies based in or making significant investments in emerging markets, are not permitted.

Funds of Funds and Discretionary Mandates

The Program may, from time to time, use funds of funds or Managers with discretionary mandates to accomplish investment strategies and activities (including, but not limited to, highly specialized or labor-intensive activities).

Investment Limits

Commitment Size: TRS shall not make a commitment to an individual fund, which exceeds the lesser of \$200 million or, 15% of the final commitments to that fund.

Concentration: TRS shall maintain diversification in both commitments and investments across geography, industry, strategy, Manager, vehicle and vintage year.

Investment Vehicles

The Program will only consider investment structures that provide limited liability to TRS.

Targeted Investments

Targeted private equity investments may be made and shall be in keeping with this Policy as well as any targeted investment policy of TRS.

Minimum Requirements

The following shall be the minimum requirements for all investments:

- ~~The principals shall demonstrate relevant experience and expertise in the strategy they propose to execute and the market in which they propose to operate.~~
- ~~The principals shall demonstrate requisite skills and experience necessary to execute the proposed strategy, including evidence from similar prior accomplishments.~~
- ~~The principals shall demonstrate an ability to cooperate and to work well together over the long term and to manage a stable organization.~~
- ~~The principals shall dedicate a sufficient proportion of their time and effort to the proposed investment vehicle.~~
- ~~The principals shall make a meaningful personal financial commitment to the proposed investment.~~
- ~~The principals shall be individuals of high character and solid professional reputation.~~
- ~~The proposed strategy and business plan shall be set forth in sufficient detail as to permit substantive and meaningful review of the investment opportunity, verification of the investment concept and evaluation of the appropriate risk factors.~~
- ~~TRS will not entertain proposals that have the potential of eliminating public-sector jobs.~~
- ~~The proposed strategy and business plan shall provide reasonable assurance that the investment opportunity can produce the target return.~~
- ~~The risk anticipated in the strategy and market is justified by and compensated for by the proposed investment, based on reasonable~~

assumptions.

Evaluation Criteria

Primary emphasis will be on the quality and experience of the general partners, sponsors or managing members (collectively for ease of reference "general partners") and the staff of a proposed investment.

Additional factors to be evaluated shall include:

- Fit within the Annual Plan and TRS's portfolio.
- Strategy: its uniqueness, the general partner's access to proprietary deal flow, and the flexibility and likelihood of success of the firm's entry and exit strategy.
- Integrity and reputation of the general partners, its employees and other investors.
- Depth and breadth of the general partners' principles and their employees' experience and expertise.
- Personnel turnover.
- Quality of overall partnership governance and management of the partnership including controls and reporting systems (including audited financials and reports to limited partnerships).
- Relationship with and reputation among existing investors (e.g., re-ups and declines).
- Relationship with existing portfolio companies, including terminated Managers.
- Relationship and reputation among banks and other sources of financing.
- Nature and quality of value added involvement by general partners.
- Demonstrated ability of general partners and their employees.
- Past financial performance.
- Pre-existing commitments of general partners (with particular emphasis on unrealized investments in previous funds).
- Alignment of employee interests with those of Principals.

- ~~Alignment of general partner interests with investors (general partner investment relative to contemplated commitment, waterfall, treatment of transaction fees, clawbacks and lookbacks, operating budget, etc.)~~
- ~~Appropriateness of terms and conditions.~~

~~Investment Management~~

~~Staff and Consultants shall be responsible for monitoring the performance of, and developments at, portfolio funds.~~

8A. Real Estate Investment Policy

SECTION I – INTRODUCTION

A. Purpose of Real Estate Investment Policy

The purpose of this Real Estate Investment Policy (the “Investment Policy”) for TRS is to establish the parameters by which the Fund may invest through its Real Estate Program (the “Program”), to ensure that the Managers (which term collectively refers to and includes, but is not limited to, “principals,” “managing members,” “general partners,” “sponsors,” “advisors,” and “proposers”), and the Consultant and other external resources retained by TRS, adhere to the investment principles and guidelines of the Board while preserving the flexibility necessary to accomplish the objectives of the Program.

B. Objectives of Real Estate Investments

Consistent with the strategy approved by the Board, the role of real estate investments made through the Program is:

- To enhance the diversification of the Fund’s investments through the historically low or negative correlation between real estate and other financial asset classes;
- To provide competitive risk-adjusted returns relative to other asset classes;
- To serve as a hedge against inflation;
- To emphasize long-term income returns.

Domestic private market equity real estate possesses the best attributes to meet the role defined for the Program.

TRS expects that commitments to and investments in the real estate asset class will establish, maintain and continually improve the reputation of TRS as an investor, and that TRS will make both continuous use of, and contributions to, the best practices of investors in real estate. TRS will seek investments in which the proposer demonstrates a commitment to standards of good conduct, including compliance with all Federal, State and local laws, including, but not limited to, labor, anti-discrimination, environmental, and health and safety laws and will reject investments that

would bring public or regulatory scrutiny. TRS encourages the submission of proposals for review from proposers that demonstrate a strong commitment to diversity in their firms.

The operation of the Program is subject to the exclusive benefit rule and all other applicable laws, including requirements of prudence.

C. Asset Allocation

Pursuant to a 2003 asset allocation study performed by the Fund's general consultant, Roca-ton Investment Advisors, LLC, the Board has adopted an allocation to private market real estate of three percent (3%) of the market value of the total investable assets of the Fund. The Board recognizes that it will take several years to achieve this market value exposure. As it is the case that commitments in connection with the Program are drawn down over time, such commitments at any particular time may exceed the target market value exposure in a mature Program.

SECTION II – RESPONSIBILITIES AND DELEGATION

A. Role of the Board of Trustees

The Board, assisted by the recommendations of Staff and Consultant, will:

- Review and approve this Investment Policy, along with the Annual Plan;
- Review and approve the scope for any Program Requests for Proposals;
- Approve Enhanced ("Value") and High Return ("Opportunistic") investments and Managers pursuant to recommendations by Staff and Consultant;
- Delegate investment approval authority as appropriate;
- Review the performance of the Program and its compliance with the objectives and policies stated herein;
- Complete or enable the completion of any other activities necessary to implement and monitor real estate investments through the Program;

- ~~Approve the retention of other external resources to the Program.~~

~~B. Role of the Comptroller's Office Staff~~

~~Comptroller's Office Staff ("Staff") will:~~

- ~~Oversee and participate with the Consultant in the preparation of the Investment Policy and the recommendation of changes in the Policy to the Board;~~
- ~~Oversee and participate with the Consultant in the preparation of an Annual Plan;~~
- ~~Oversee and participate with the Consultant in the preparation of all other necessary Program policies, guidelines and documents;~~
- ~~Manage the operations of the Program including management of external resources to the Program;~~
- ~~Manage TRS's relationships with external resources, to ensure that TRS obtains the maximum value from these relationships;~~
- ~~Work with the Consultant to search for, identify, evaluate and recommend to the Board investment vehicles operated by qualified Enhanced Return and High Return Managers;~~
- ~~In a discretionary capacity, work with the Consultant to implement the Stable ("Core") component of the Program including the selection of Managers and portfolio construction. The Board will be apprised of the progress of this aspect of the Program periodically;~~
- ~~Review and negotiate the business terms of documents in connection with real estate investments;~~
- ~~Perform, manage and supervise due diligence on and recommendations of commitments of capital to real estate investments, subject to the Investment Policy and Annual Plan;~~
- ~~Monitor the process for the transfer of funds including capital calls, contributions or distributions, Consultant certifications, and the coordination of the receipt and distribution of capital with respect to funding new and/or existing real estate investments or the liquidation/disposition of investments;~~

- ~~Monitor and report to the Board on investment performance;~~
- ~~Complete any other activities required by the Board or those specifically delegated to the Staff in the Investment Policy or Annual Plan, or other applicable policies.~~

~~The duties of the Comptroller's Office General Counsel include, but are not limited to:~~

- ~~Review the Real Estate Investment Policy and any other policies developed as part of the Program where legal oversight is required;~~
- ~~Participate in the procurement of external resources to the Program;~~
- ~~Manage retained outside counsel sufficiently experienced and expert in the form of the investment under consideration;~~
- ~~Conduct on a case by case basis legal due diligence in conjunction with outside counsel, which due diligence will include a review of proposed investments for statutory and regulatory compliance;~~
- ~~Coordinate and work with outside counsel and Staff in the review and negotiation of all legal documents related to Program investments;~~
- ~~Assist Staff and render legal advice regarding any developments occurring during the life of the investment;~~
- ~~Assist Staff and render general legal advice on the development and implementation of the Program.~~

~~C. Role of the Consultant~~

~~Consultant will:~~

- ~~Monitor on an ongoing basis the real estate and capital markets and the investable universe of Managers and real estate investment vehicles;~~
- ~~Assist Staff in developing the Investment Policy and Annual Plan and review the latter document periodically in order to recommend revisions that reflect changes in the real estate and capital markets;~~
- ~~Assist Staff in searching for, identifying, evaluating and~~

~~recommending select investment vehicles operated by qualified Managers;~~

- ~~• Perform due diligence on and recommend commitments of capital to real estate investments, subject to the Investment Policy and the Annual Plan;~~
- ~~• Assist Staff in implementing Stable investments;~~
- ~~• Assist Staff in the implementation, negotiation and execution of new investments and consult, as necessary, on the termination of Managers;~~
- ~~• Facilitate the transfer of funds in order to perfect investments;~~
- ~~• Monitor and evaluate, on an on-going basis, Manager performance; alert Staff regarding any significant organizational changes or contractual non-compliance on the part of a Manager;~~
- ~~• Monitor the custodian of the pension fund with respect to Program investments;~~
- ~~• Provide quarterly Performance Measurement Reports;~~
- ~~• Periodically report to the Board and advise the Board on investments;~~
- ~~• Undertake such other activities necessary to the efficient functioning of the Program as determined by the Board and Staff.~~

SECTION III—PROGRAM OPERATIONS

A. General Approach

~~Investment decisions regarding the Program will be guided by the following objectives: (i) to maintain a broad diversification of assets; (ii) to achieve a total return competitive with other asset classes; (iii) to serve as a hedge against inflation; and (iv) to emphasize long-term income returns.~~

~~Controlling risk in the Program is equally as important as obtaining the desired risk-adjusted returns. TRS will follow prudent risk management policies that will manage risk through control over the investment process and investment vehicles and will ensure prudent diversification by~~

investment style sector, property type, geographic location, and by manager.

B. Strategy Allocation

The categories and allocation ranges by investment style sector will initially be:

1. Stable Return: 60%-80%
2. Enhanced Return: 10%-40%
3. High Return: 0%-30%

For each of the four traditional property types (Office, Retail, Industrial, Multifamily) and for each of the primary NCREIF Property Index (NPI) regions (East, West, Midwest, South) the Program will be invested such that the Program weighting will be within a range of the NPI weighting for such property type or region of +30%. The four property types will represent at least 85% of the total real estate portfolio. For all other property types, TRS will limit the aggregate holdings of such types to no more than 15% of the total portfolio. This category includes specialized property types.

C. Investment Vehicles

The Program will only consider investment structures that provide limited liability to TRS. Investments may be made by means of any legally permissible investment vehicles, including, but not limited to: separate accounts, joint ventures, commingled funds, limited partnerships, group trusts, real estate operating companies, insurance company separate accounts and limited liability corporations. TRS will consider co-investments with comparable institutional investors who have similar investment objectives.

D. Discretionary Mandates

The Program will use Managers who will have discretion at the fund and property level within their mandate to accomplish investment strategies and activities. Working with the Consultant, Staff has discretion over the Stable component of the Program.

E. Program Benchmark

The Program's objective is to generate a total return, gross of investment management fees, that exceeds the return of the NPI by 100 basis points, measured over rolling five year periods. (NB: the NPI is reported gross of fees.)

~~F. Annual Plan~~

~~Staff and Consultant will present to the Board annually for its approval an Annual Plan, which will provide guidance to the Staff and Consultant in the management, operations and investments of the Program. The Annual Plan will specify the target amount for investment in that year and a pacing analysis (see below). The Plan will include an elaboration of a target strategic allocation within the real estate asset class. It will specify ranges across investment style sectors and diversification by property type and geographic location.~~

~~G. Risk Management~~

~~TRS recognizes the inevitability of the assumption of risk in the management of a Real Estate Investment Program. The portfolio will be diversified in order to achieve a balance of risks within this asset class. Managers selected by the Board shall provide information adequate in quantity, quality and timeliness to permit Staff and the Consultant to monitor risk, and shall have risk management systems appropriate to their investment disciplines. Investment performance is a function of risk and return, and should be construed as such when the term is used in this policy statement. Managers shall also have internal procedures and controls appropriate to the industry. Such controls should address operational safeguards, conflicts of interest, ethical compliance issues and such other risk concerns as appropriate.~~

~~H. Pacing~~

~~The Annual Plan will include an identification of an optimal average commitment size to be made by TRS within each investment style sector as well as a total target commitment for the Fund within each sector (the "Pacing Analysis") in order to achieve both the target strategic allocation and the overall allocation to the Real Estate Program. Ranges will be utilized in describing the aforementioned targets. The Pacing Analysis will take into account the Fund's overall allocation to investments. The Program will strive to avoid inappropriate concentrations by investment style sector, property type, geographic location and manager.~~

~~SECTION IV PROGRAM GUIDELINES~~

~~A. Strategic Allocations~~

~~Investments made under the Program will be made in accordance with the~~

Investment Policy and Annual Plan.

B. ~~Permissible Investments~~

~~All investments will be of institutional quality. Such opportunities may be found in the Stable, Enhanced Return and High Return sectors. Institutional quality investments are typically well located in stable, diversified economic markets. Investments should be of high quality design and construction and in a competitive position within the immediate geographic market area of such investment. Investments may be made by means of any legally permissible investment vehicles.~~

C. ~~Permissible Private Equity Real Estate Markets~~

~~No emerging market investments will be made as part of this asset allocation (hereinafter, the "Investment Restriction"). For purposes of this Investment Restriction, "emerging market investments" shall mean investments in (i) portfolio companies or investment vehicles that are organized, headquartered or operating principally in a country or countries whose "Gross National Income per Capita," as reported in the most recent "World Development Indicators" published by the World Bank, is less than the threshold established by the World Bank for countries to be categorized as "High Income" ("Emerging Market Countries") and/or (ii) property located in an Emerging Market Country.~~

~~Staff, with the assistance of the Consultant, will be responsible for the application of the Investment Restriction to the individual investments made by the funds to which TRS commits capital. The board recognizes that in order to accomplish this, Staff will have to negotiate with respect of the Investment Restriction, an opt-out right in pooled fund investments, for each fund to which TRS proposes to commit capital. Therefore, the application of the Investment Restriction at the property level may affect TRS's access to certain private equity funds that do not permit its investors to opt out and be excused from making investments. It may also require that, from time to time, TRS opt out of certain investments made by the funds to which TRS commits capital. This may affect the overall performance of the investment in such particular funds, but the Board has determined that investing in Emerging Market Countries poses a greater investment risk overall.~~

D. ~~Restriction~~

~~The Investment Restriction will apply to investments made after the effective date hereof, and will apply at the time of investment. Therefore, this Investment Restriction does not require divestment of an investment that was in compliance herewith as of the date such investment was~~

made:

E. Leverage

TRS recognizes that the use of leverage can enhance returns and can facilitate additional diversification within the Program. Utilization of leverage also introduces volatility and risk. In light of the fact that leverage carries with it potential positive and negative impacts on the Program, the use of leverage will be limited to no more than a 50% loan to value once 80% of the Program's real estate allocation has been invested. Until such time, the 50% limitation may be exceeded, depending upon the portfolio mix of Stable Return, Enhanced Return and High Return style sector investments, as Enhanced Return and High Return investments commonly utilize leverage in excess of 50%. This level will allow the Fund to capture some of the benefits of using leverage without dramatically increasing expected risk. The Fund will not use leverage in all situations, and Staff and Consultant will recommend the deployment of leverage only under appropriate circumstances.

F. Environmental Liability

Prior to closing on any real estate investment, the Fund's Managers will have performed an appropriate environmental survey of the property performed by a qualified environmental services firm. The survey will identify any potential hazardous materials located on, or near, the property that may create any liability to TRS. The survey will further analyze and quantify the potential risk and will determine any actions that may mitigate the risk. If the identified risks cannot be appropriately mitigated, then the Manager will not close on the property.

G. Valuations

The real estate asset class is relatively illiquid and is not fungible. In addition, many investments have a longer term holding period. As a result, real estate lacks the trading frequency to establish values and relies on an appraisal process to periodically value investments. The Fund will utilize valuation policies consistent with industry standards for the asset class of real estate.

H. Investment Size

TRS will monitor the amount of equity in any single investment opportunity (including but not limited to commingled funds, separate account relationships, individual properties and joint ventures) to maintain a prudent level of diversification and efficiency.

~~I. — Manager Exposure~~

~~Manager risk consists of two elements: the exposure to a Manager/product and the number of Managers in the real estate portfolio. To control Manager exposure, the allocation to a single manager in the Program is limited to 25 % of the Fund's total real estate allocation. Manager affiliates cannot be utilized without TRS's consent.~~

~~J. — Economically Targeted Investments~~

~~Economically targeted real estate investments may be made in keeping with this Investment Policy as well as with any Economically Targeted Investment Policy of the Fund.~~

~~K. — Emerging Managers~~

~~TRS seeks to make investments with emerging managers to achieve greater diversification in a manner consistent with this Investment Policy.~~

~~SECTION V — SEPARATE ACCOUNTS~~

~~A. — Restrictions~~

~~Staff with the assistance of the Consultant is hereby delegated the authority to evaluate and determine whether individual investments proposed by a Manager to which TRS has committed capital may violate the Investment Restriction. Given the global nature of business transactions today, certain investments may not fall squarely within or outside of these restrictions. Accordingly, Staff will apply their good faith judgment in cases where the applicability of the Investment Restriction is unclear in order to comply with the intent of the investment.~~

~~B. — Lease Maturities~~

~~A large percentage of the commercial property leases maturing during a period in which the real estate markets are under performing would subject the Program to significant risk. The Fund will seek investments that have staggered portfolio level lease maturation dates in order to reduce volatility and to mitigate concentrated leasing risk.~~

~~C. — Insurance~~

~~The appropriate type and level of insurance will be obtained for Program~~

investments. In the event that assets are directly owned, the ability to design, place and efficiently price a comprehensive insurance program that addresses the unique characteristics of directly owned assets will be sought.

D. Deal Allocation

In order to ensure fairness, Managers are expected to present investment opportunities to their clients on a rotation basis. TRS will require periodic reporting by the Manager of all transaction activity indicating closed investments and the equitable distribution of deals.

E. Tenant Revenue

TRS seeks to limit its reliance on the revenue generated by any one tenant in its real estate portfolio so that the loss of that tenant will not have a material impact upon the performance of the Program.

F. Responsible Contractor

Managers will be required to comply with TRS's policy regarding the retention of responsible contractors (see Appendix A).

G. Concentration

The Fund will maintain diversification through previously referenced ranges in both commitments and investments across investment style sectors, property type, geographic location and manager.

SECTION VI – POOLED INVESTMENTS

A. Investment Restriction

The Board recognizes that in order to comply with the emerging markets policy and the restriction, Staff will negotiate an opt-out right in respect of the Investment Restriction. Therefore, the application of the restriction at the portfolio company and property level may affect the Fund's access to certain private market equity real estate funds that do not permit its investors to opt out and be excused from making investments. It may also require that, from time to time, TRS opt out of certain investments made by the funds to which capital is committed. This may affect the overall performance of the investment in such particular funds, but the Board has determined that investing in Emerging Market Countries poses a greater overall investment risk.

~~Staff with the assistance of the Consultant is hereby delegated the authority to evaluate and determine whether individual investments proposed by a fund to which the Fund has committed capital may violate the Investment Restriction. Given the global nature of business transactions today, certain investments may not fall squarely within or outside of this restriction. Accordingly, Staff will apply their good faith judgment in cases where the applicability of the Investment Restriction is unclear in order to comply with the intent of the Investment Restriction.~~

~~B. Alignment of Interests~~

~~The Manager's interests and the interests of TRS will be aligned to the extent possible through co-investment capital provided by the Manager and/or through incentive-based compensation structures.~~

~~C. Key Person Protection~~

~~To mitigate risks during the investment period and to ensure that adequate time is being dedicated to the fund, certain executives may be required to restrict their time spent on other matters.~~

~~D. Fund Size~~

~~TRS will consider pooled fund investments in offerings that have or contemplate at least \$250 million in commitments. This threshold will ensure a desirable level of diversification.~~

~~SECTION VII—OTHER INVESTMENT VEHICLES~~

~~An investment opportunity that does not fit within the separate account or pooled investment structure will be evaluated on a case by case basis. All such investments must conform to the Investment Policy Statement.~~

~~In connection with direct investments i) TRS will seek investments in which the proposer demonstrates a commitment to standards of good conduct, including compliance with all Federal, State and local laws, including, but not limited to, labor, anti-discrimination, environmental, and health and safety laws, and will reject investments that would embarrass investors or bring public or regulatory scrutiny; and ii) Managers will be required to comply with TRS's policy regarding the retention of responsible contractors (see Appendix A).~~

SECTION VIII – MINIMUM REQUIREMENTS AND EVALUATION CRITERIA FOR PROGRAM MANAGERS AND INVESTMENTS

The following will be the minimum requirements for all Managers and investments:

- The Manager will demonstrate relevant experience and expertise in the strategy they propose to execute and the market(s) in which they propose to operate;
- The Manager will demonstrate requisite skills and experience necessary to execute the proposed strategy, including evidence from similar prior accomplishments;
- The Manager will demonstrate an ability to cooperate and to work well together over the long term and to manage a stable organization;
- The Manager will dedicate a sufficient portion of their time and effort to the proposed investment vehicle;
- The Manager's interests and the interests of TRS will be aligned to the extent possible through co-investment capital provided by the Manager and/or through incentive based compensation structures. Each compensation structure will be reviewed by Staff and Consultant. TRS recognizes that co-investment practices and compensation structures may vary in part by the investment strategy to be executed and by the type of vehicle under consideration;
- The Manager's personnel will be individuals of high character and solid professional reputation;
- The proposed strategy and business plan will be set forth in sufficient detail so as to permit substantive and meaningful review of the investment opportunity, verification of the investment concept and evaluation of the appropriate risk factors;
- The proposed strategy and business plan will provide reasonable assurance that the investment opportunity can produce the target return;
- The risk anticipated in the strategy and market is both compensated for and justified by the proposed investment, based on reasonable assumptions;

- Other requirements notwithstanding, part of the Program allocation may be set aside for the creation of an emerging managers program.

Evaluation Criteria

Primary emphasis will be placed on the quality and experience of the Manager and on the personnel assigned to implement a proposed investment. All investments will be underwritten, managed and disposed of by a qualified Manager that has an established and successful record of providing advisory and investment services to institutions and who is deemed capable of delivering similar services in the future. The Manager will have proven experience providing like services, a successful performance history and an established client base. All Managers will assume a fiduciary relationship with the Fund.

Evaluation criteria applying to the stability and organization of Managers proposing services to TRS will include the following:

- Stability of the firm, as measured by any changes in the organizational or ownership structure of the firm during a relevant time period prior to engaging the Manager;
- The existence of, or potential for, significant developments in the firm such as acquisitions, mergers or management succession over the next five years;
- The expected financial stability of the firm;
- Adverse organizational issues, such as the existence of litigation or other investigations; and the existence of financial problems;
- Quality of references from clients, as measured by responses relating to quality and responsiveness of investment management services; knowledge and accessibility of the portfolio manager(s); and the quality of client services.

Evaluation criteria applying to the experience of the Manager in implementing a specified investment strategy for TRS may include the following:

- The total number of clients utilizing the Manager's services for the specified strategy and the growth or decline in this number historically;

- The total net equity tax exempt dollar amount of assets under management currently and historically;
- The total number and net equity tax exempt dollar investments made by the firm during a relevant historical period;
- The percentage that net equity assets under management following the strategy proposed represent of the firm's total net equity real estate assets under management;
- Property type and geographic diversification characteristics of net equity assets under management.

Evaluation criteria regarding the quality, stability, depth and experience of the Manager's personnel assigned to implement a specified strategy for TRS may include:

- Experience of the proposed portfolio manager(s) in managing for institutional investors as measured by the length of time the portfolio manager(s) has served as a in such a capacity;
- Capacity of the proposed portfolio manager(s) as measured by the total number, dollar amount and status (actively investing, periodically investing, divesting) of other accounts to which the proposed portfolio manager(s) is providing services;
- Experience of other professionals (asset managers, acquisitions and dispositions professionals, analysts and other professionals) in providing investment management services as measured by the length of time dedicated support staff have provided such services to institutional investors;
- Depth of personnel, as measured by the firm's account/portfolio manager and account/investment management personnel ratios; and back-up procedures for providing services in the absence of the portfolio manager(s);
- Stability of the firm's professional base, as measured by investment professional personnel turnover over a relevant time period.

Evaluation criteria regarding processes utilized by the Manager in implementing real estate investments for TRS along a specified investment strategy may include:

- A well defined investment management process and consistent process implementation, as measured by documented acquisition,

underwriting and management procedures; a defined portfolio construction methodology; and the implementation of risk controls which provide appropriate safeguards for prudent underwriting and risk management;

- A well defined, documented and equitable process by which potential investments are allocated among the Manager's clients, as measured by historical allocation results, written documentation, and whether any client(s) have any preference or advantage over other clients;
- Capacity to execute this strategy for the Fund, as measured by capital available for investment by the Manager's clients for all strategies and capital available for investment specifically in the strategy of interest to TRS;
- A well defined disposition process, as measured by documented disposition procedures;
- A well defined procedure for measuring investment performance and the capacity to monitor performance.

Evaluation criteria regarding past performance of the Manager may include:

- The historical performance of the Manager's investments as measured by its cumulative and annual performance compared to the NPI during a relevant historical period;
- The historical realized performance of the Manager's investments as measured by its since inception internal rate of return for all investments both made and sold by the Manager during a relevant historical period.

Evaluation criteria regarding Manager compensation may include the following:

- The total cost of performing investment management services, and the competitiveness of the Manager's fees when considering the Fund's capital commitment and the fees typically charged through the marketplace;
- The structure of the fees, as measured by the degree of Manager compensation tied to performance actually delivered to the Fund to ensure proper alignment of interests with the Fund.

SECTION IX—PROGRAM MONITORING

A.—Staff and Consultant

~~Staff and Consultants will be responsible for monitoring the performance of, and developments within, Program investments. Reports prepared by the Consultant will be furnished on a quarterly basis to Staff and to the Board and will include but not be limited to the Program's performance from inception to date, individual investment and Manager performance, highlights of investment activity, performance of the investment in the context of the market and sub-asset class and analysis of the current state of the market and projected market trends.~~

B.—Managers

~~At least quarterly, Managers will be required to certify, in writing, their compliance with TRS's real estate investment policy as described herein or as detailed in a side letter between the parties.~~

~~8B. Responsible Contractor Policy – Real Estate~~

~~Introduction~~

~~This policy is being presented should the Teachers' Retirement System (TRS) choose to make a direct investment in real estate. TRS has a deep interest in the condition of workers employed by the Fund and its advisors. The Trustees support fair wages and benefits for all workers and other service providers doing business with the Fund either directly or indirectly.~~

~~TRS supports many of the ideals espoused by labor unions. TRS believes that a diverse, adequately compensated and trained work force delivers a higher quality product and service.~~

~~Definitions~~

~~A Responsible Contractor, as used in this Policy, is a contractor or subcontractor who pays workers fair wages and benefits as evidenced by payroll and employee records. "Fair benefits" may include, but are not limited to, employer-supported family health care coverage, pension benefits and apprenticeship training programs. What constitutes "fair wages and "fair benefits" depends on the wages and benefits paid on comparable real estate projects, based upon local market factors, that include the nature of the project (e.g., residential or commercial; public or private), comparable job or trade classifications, and the scope and complexity of services provided.~~

~~Initial Requirements~~

- ~~A. Duty of Loyalty: Notwithstanding any other considerations, assets will be managed for the exclusive benefit of plan participants and beneficiaries.~~
- ~~B. Prudence: The Trustees, Staff and advisors are charged with the fiduciary duty to exercise the care, skill prudence and diligence appropriate to the task.~~
- ~~C. Competitive Return: All investments and services must be made and managed in a manner that produces a competitive, risk-adjusted rate of return.~~
- ~~D. Local, State, and National Laws: Throughout the market in which they operate, all advisors and their subcontractors shall observe all local, state, and national laws (including by way of illustration those pertaining to insurance, withholding taxes, minimum wage, occupational health and safety, and the right to organize unions).~~

~~Administration and Monitoring Real Estate Contractor Selection Process~~

~~Policies and procedures will be established outlining the duties and responsibilities of~~

~~the staff, consultants, managers, attorneys, etc. once TRS makes the decision to invest in direct real estate ownership. TRS will employ real estate managers through an appropriate competitive process in compliance with Procurement Policy Board Rules. TRS and its real estate managers, when seeking bids for construction, maintenance or~~

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~~A. contractors. Contractors who do not pay fair wages and benefits, or which have a other services, shall notify and actively seek bids from qualified contractors certified as M/WBES by the City's Department of Business Services or otherwise certified as minority/women owned business enterprises by a governmental entity in the local market in which the contractor operates, and shall award contracts only to responsible history of non-compliance with federal, state, or local laws regulating employment or labor relations, will not be considered a responsible contractor.~~

9. Economically Targeted Investment Policy

PURPOSE OF ECONOMICALLY TARGETED INVESTMENTS POLICY

The purpose of this Policy is to establish the parameters by which the Teachers' Retirement System of the City of New York ("TRS,") may invest through its Economically Targeted Investments ("ETI") Program (the "Program"). ETIs are investments in a variety of asset classes that generate rates of return commensurate with the overall risk, liquidity, security and structure of comparable non-targeted investments while providing collateral economic benefits (benefits that enhance quality of life and promote economic development and activity) to the targeted areas. ETIs address capital gaps, thereby promoting the quality of life, growth and economic development in the targeted areas. For the purpose of this Policy, targeted areas are defined as the five boroughs of New York City.

This Policy, as of its adoption date, supersedes the Economically Targeted Investment Policy as adopted on September 8, 2004.

OBJECTIVES OF ECONOMICALLY TARGETED INVESTMENTS

TRS has mandated investments in Economically Targeted Investments:

- to achieve competitive returns commensurate with the risk, liquidity and structure of the investment;
- to provide collateral economic benefits for the Targeted Areas;
- to address market inefficiencies in the Targeted Areas, and in particular capital gaps that affect the low-, moderate- and middle-income neighborhoods and populations of the Targeted Areas;
- to promote economic development and attract additional investment in the Targeted Areas;
- to increase the diversification of its assets; and
- to reduce the volatility of the overall portfolio of TRS.

TRS also expects that commitments to and investments in ETIs will establish, maintain and continually improve the reputation of TRS as an investor. TRS will make both continuous use of and contributions to the best practices of investors in ETIs, including rigorously applying the standard of valuing the achievement of risk-adjusted, market rates of return above the achievement of any collateral results. TRS will seek investments in which the proposer demonstrates a commitment to standards of good conduct, including compliance with all Federal, State and local laws, including, but not limited to, labor, anti-discrimination, environmental, and health and safety laws, and any of the stated policies of TRS and will seek to avoid investment programs that at the time

~~commitment to the investment or investment program is made by the Board, the Board reasonably believes would likely (i) embarrass the Investor or (ii) generate public or regulatory scrutiny greater than that which is required by law or regulation to consummate the investment. TRS encourages the submission of proposals for review from proposers that demonstrate a strong commitment to diversity in their firms.~~

~~The operation of the Program is subject to the exclusive benefit rule and all other applicable laws, including requirements of prudence and will be operated in accordance with Department of Labor Interpretive Bulletin 94-1, 29 CFR Part 2509.~~

ASSET ALLOCATION

~~ETIs may cross a variety of asset classes, where practical and consistent with the standards in this and other policies. TRS will seek to achieve a target allocation of 2% of assets to ETIs, by setting a target of 6% for the fixed income asset class and a target of 2% for the private equity and real estate asset classes respectively. In addition:~~

- ~~• TRS will permit the combined total of contractual commitments to forward commitment programs to be no greater than 200% of the approved fixed income target asset allocation.~~
- ~~• TRS will permit the combination of the market value of the total invested fixed income portfolio plus the combined total of unfunded rate locks generated by forward commitment programs to be no greater than 160% of the approved target asset allocation policy for fixed income.~~
- ~~• TRS will permit the combined total of contractual commitments to private equity to be no greater than 130% of the target private equity allocation for ETIs.~~
- ~~• Funded investments must not exceed the target asset allocation without prior approval of the Board.~~

RESPONSIBILITIES AND DELEGATION:

ROLE OF BOARD OF TRUSTEES

~~The Board shall approve this Policy no less than biennially. In addition, the Board shall:~~

- ~~• Approve a Plan at least annually;~~
- ~~• Oversee performance;~~
- ~~• Approve investments;~~
- ~~• Delegate investment approval authority as appropriate; and~~

- Approve the retention of consultants and advisors (“Consultants”), outside legal counsel and other external resources as necessary.

ROLE OF THE COMPTROLLER’S OFFICE STAFF

The duties of the OTC Staff (the “Staff”) include, but are not limited to:

- Implementing and managing the operations of the program consistent with this policy and the direction of the Board;
- Developing and proposing a Plan for the Board’s consideration, modification and adoption;
- Implementing the Plan as approved by the Board;
- Preparing new investment initiatives for the consideration of the Board;
- Evaluating and recommending investment programs and opportunities to the Board; and
- Monitoring and reporting to the Board on the performance of the program.
 - The duties of the Comptroller’s Office legal staff (“the Legal Staff”) are to assist the Staff in implementing the Board’s directives, including, but not limited to:
 - Reviewing this Policy and any other policies developed as part of the Program;
 - Participating in procurement of Consultants and other necessary experts; and
 - Implementing Board directions regarding the retention of outside legal counsel and other Consultants, performing legal work and providing legal advice in the ordinary course on the development and implementation of the program, managing and working with retained outside counsel, and ensuring statutory and regulatory compliance of investments.

Performance Benchmarking

The performance of each investment shall be measured against an appropriate benchmark, to be identified initially in conjunction with the making of the investment and to be modified from time to time to provide a suitable measurement of performance relative to investments with similar levels of risk, liquidity, security and structure. The collateral economic benefits shall be quantified to the extent possible and measured alongside the anticipated goal of the investment.

Staff shall report regularly to the Board on the performance of ETIs.

INVESTMENT OPERATIONS:

GENERAL APPROACH

The Staff shall review and manage investments guided by the Plan, this policy statement and, in addition, the policy statement governing investments in the asset class to which an investment under consideration belongs. Staff shall seek to identify the most attractive investment opportunities available consistent with the above and with the investment objectives articulated in the Plan. All targeted investments shall be consistent with sound fiduciary standards (i.e. standards of prudence).

THE PLAN

Staff shall from time to time present to the Board for its approval a Plan that shall provide guidance to the Staff in the management, operations and investments of the Program.

INVESTMENT PARAMETERS

Only those ETI investments that compare favorably in terms of risk, liquidity, security and structure to similar non-ETI investments will be considered. Collateral economic benefits may not be factored when calculating risk or return. Only after an investment is determined to be financially sound may it be considered for the collateral economic benefits potentially offered.

Although the Targeted Areas are the five boroughs of New York City, ETIs may also provide benefits to additional areas outside of New York City.

PROHIBITED INVESTMENTS

Investments that provide concessionary rates of return, that place social benefit concerns above the risk-adjusted return to TRS or that violate any policy of TRS are not permitted.

INVESTMENT LIMITS

Commitment Size: TRS will not consider any investment programs (which may consist of one or more similar investments) which are expected to result in the investment across all of the New York City Retirement Systems (TRS; the New York City Employees' Retirement System; the New York City Police Pension Fund, Subchapter 2; the New York City Fire Department Pension Fund, Subchapter 2; and the Board of Education Retirement System [collectively, the "Systems"]) of less than \$20 million in the aggregate over three years. Neither shall it consider individual investments across the Systems of less than \$10 million unless such investments are made in the context of an investment program which is anticipated to result in the investment by the Systems of \$20 million in the aggregate over three years.

Concentration: ETIs are, by definition, geographically concentrated. In order to mitigate this concentration risk, staff shall use a variety of tools, including but not limited to,

guarantees, co-investors, and experienced managers.

EQUITY INVESTMENT VEHICLES

The only equity structures that TRS will consider will be those that provide limited liability to TRS.

MINIMUM REQUIREMENTS

The following shall be the minimum requirements for all ETI investments:

- All proposed investments must offer market rates of return on a risk-adjusted basis, with returns comparable to similar (non-ETI) products with similar risks, structures, liquidity and conditions;
- Investments must fill a capital gap or reach a sector of the market that is not efficiently served by the market;
- Investments must provide collateral economic benefits to the Targeted Areas;
- The proposing organization and/or the principals of a firm providing an investment must have three years' verifiable experience in and adequate staff for the type of investment proposed, and must provide a verifiable track record of relevant investment performance which demonstrates an ability to generate risk-adjusted returns with the product being proposed or a product substantially similar to the one being proposed; and
- The proposing organization and/or the principals must have demonstrated an ability to cooperate and to work well together with governmental and non-governmental financial entities as applicable and to manage a stable organization.
- Evaluation Criteria:
 - Proposed investments will be evaluated according to the following factors:
 - The fit within the Plan and TRS's portfolio;
 - The clarity of the proposed investment or program and its parameters and goals;
 - The extent to which the proposer demonstrates that the proposed investment or program will produce the anticipated risk-adjusted return and collateral benefits;
 - The quality, reputation and experience of the investment managers and their ability to implement a proposed program or investment;
 - The quality of controls and reporting systems (including audited financials, risk management systems and reports to investors); and
 - The appropriateness of terms and conditions.

INVESTMENT MANAGEMENT

~~Staff and Consultants shall be responsible for monitoring the performance of investments.~~

120. Securities Litigation Protocol

Overview

Corporate fraud and other misdeeds that have resulted in significant losses to shareholders have underscored the need for an internal set of policies and procedures to guide the New York City Pension and Related Funds ('the Funds'), including the New York City Teachers' Retirement System ('TRS'), in identifying, evaluating and ultimately managing securities litigation. The Funds are increasingly being presented with potential cases by the class action bar and a set of established procedures will help facilitate the Funds' decision-making process and ensure that the Funds are pursuing active involvement in cases when it is in their best interests to do so. Across the country, pension funds have started clearly identifying their objectives in pursuing actions and are becoming more proactive in identifying these claims themselves and reducing their reliance on the class action bar. They are also looking at other ways to participate actively in securities class actions. In addition, many pension funds are employing a two-tiered approach to their use of counsel; *i.e.*, they are expanding their counsel pool and are engaging counsel to help in the evaluation of claims. Thereafter, they engage separate counsel to represent them in the litigation, if they decide to proceed. This process provides additional resources and expertise in the evaluation process while ensuring that the resulting recommendations are as unbiased as possible.

Objectives

TRS' objectives in choosing an active role in securities litigation include the following:

- Preservation of plan assets and collection of all amounts due to TRS;
- Maximizing the net recovery to the class; and
- Effecting corporate governance reforms, when appropriate.

Out of the enormous volume of securities cases being filed, the Funds will consider those where the amount of loss sustained by the Funds and attributable to some type of wrongdoing is of a magnitude to justify the time, expense and effort involved in being lead plaintiff in a class action or in filing an independent action either in state or federal court or in pursuing some other litigation alternative. The Law Department as the Funds' legal representative and the OTC as its Investment Advisor will work together in the best interests of the Funds to recommend those cases best suited for the Funds' active participation.

Identification of Potential Cases

The first step in this process is to identify those cases or claims that would warrant the Funds' active involvement in securities litigation. Early identification of potential cases will allow the Law Department and the OTC more time to analyze the case and recommend strategies, and allow the Funds more time to respond to any such joint recommendations. To meet this goal, the Funds will engage outside data Consultants. Consultants can better monitor new case filings, follow the financial news as well as the activities of government agencies such as the SEC. Consultants will also interface directly with the custodial banks for the Funds in order to compute loss estimates. The Consultant should be able to provide the Law Department and the OTC with loss estimates for each Fund within days of a federal securities class action being filed, early enough in the 60-day statutory time period for filing a lead plaintiff motion to allow for careful analysis of potential cases by the Law Department and the OTC and a thoughtful consideration of any joint recommendations from the Law Department and the OTC by TRS and the other Funds.

Review and Analysis of Potential Cases

A two-tiered approach, involving Evaluation Counsel and Litigation Counsel, will be used to expedite the review and analysis of potential cases. After a reasonable time period, this approach will be evaluated and, if necessary, modified.

A. Evaluation Team

A pool of securities litigation law firms shall be maintained. Two or more pool members shall serve as an evaluation team on a rotating basis ('Evaluation Team'). Evaluation Team members ~~will not be eligible to~~ are not precluded from serving as Litigation Counsel on any matter they have evaluated ~~thus removing the financial incentives that might bias a firm's recommendation to pursue litigation.~~¹⁸

Utilizing a Consultant's services as described in Section III of this Protocol, the OTC will forward to the Law Department information on any case filed that satisfies the minimum loss requirement, a monetary threshold to be established by consent by the Funds. The Evaluation Team, in conjunction with the Law Department and the OTC, will review cases given to them by the Law Department and evaluate potential securities litigation claims, advising the Law Department on ways to best protect the interests of the Funds. The Evaluation Team will also perform additional due diligence on claims (*i.e.*, contact counsel for both sides; review complaints, SEC filings and company disclosures; examine contents of relevant internal files, interview investment staff, and contact other investors as appropriate).

¹⁸ In April 2013, the Board adopted a resolution to omit the requirement that evaluation counsel is not eligible to serve as litigation counsel in the same matter.

Each Evaluation Team law firm for a particular case will provide the Law Department with a written evaluation of that case including an opinion as to what, if any, action would be in the best interests of the Funds and why. The memorandum will evaluate options available to protect the Funds' interests. Options may include doing nothing, filing for lead plaintiff status or actively participating in ways other than becoming lead plaintiff.

These other types of active participation include attempting to get a claimant with larger losses to become lead plaintiff; monitoring the case from the sidelines; writing a letter to the court and/or lead counsel to bring up issues being ignored; filing a motion to support or oppose a particular lead plaintiff or lead counsel candidate; filing a notice of appearance and more actively monitoring the case; attempting to negotiate an agreement with prospective lead counsel that will require them to keep the Funds informed of case developments, provide the Funds with access to discovery upon request and allow the Funds to participate in settlement negotiations or be consulted on a settlement; waiting until settlement and reviewing the settlement carefully with the option to object to a poor settlement or excessive fees; opting out of the class to file a separate action; or bringing a derivative action. The memorandum should also discuss the most advantageous means of bringing a suit; *i.e.*, individual federal action or federal class action; state law individual action; or derivative action.

B. Joint Recommendation to the Funds from the Law Department and the Comptroller's Office.

The Law Department will consult with each Evaluation Team member and will fully analyze all relevant legal issues. The Law Department, in conjunction with the OTC, might consider, among other things, the following in issuing a recommendation to the Trustees:

- What was the alleged wrongdoing? What are the legal claims?
- What is the degree to which the wrongdoing has a market impact or raises issues of corporate governance?
- What is the amount of TRS' loss and the other System's losses collectively?
- What are the defenses? What are the merits of the case? Are the Systems likely to prevail?
- Are the losses collectible? What is the defendant's financial condition? Are insurance carriers involved? How many defendants will there be?
- Will there be other consequences if the Systems win or lose? For instance, will success bankrupt the company or adversely

affect other investments that the Systems have in the same company?

- Are there others who are more appropriate to serve as lead plaintiff? (In which case, the Systems may defer to them or seek to join them as co-lead plaintiff.)
- What economic and administrative costs will be involved? (Typically, all out-of-pocket costs should be advanced by Litigation Counsel who accepts the case on a contingency basis. However, some law firms prefer that out-of-pocket costs are advanced by the client.)
- Does TRS have a separate claim that is not covered by the class complaint or are there unusual facts that suggest a benefit to independent non-class litigation?
- Would failure in the litigation adversely affect TRS? For example, might the litigation result in the disclosure, subject to a protective order, of material non-public information about the company that could interfere with TRS' future anticipated trading strategy? Are there other possible adverse consequences?
- Do the Systems have time to interact with legal counsel and make decisions as required?
- Should TRS and the other Systems consider seeking to serve as co-lead plaintiff with other parties?
- Is the suit a nuisance suit? Should TRS consider supporting the company in a motion to dismiss?
- Are there any potential conflicts with other members of the class?
- Is there a need for corporate governance changes? Are there individual actors that need to be pursued to deter future wrongdoing?

The Law Department, in conjunction with the OTC, will then make a written recommendation to TRS and the other Systems to pursue a particular case in which active participation would be in the Systems' best interest. If time permits, such a recommendation would be presented in person by representatives of both the Law Department and the OTC who would be available to answer questions the Trustees may have. Because of the statutory deadlines involved in this type of litigation, a representative from each System will be appointed to attend one meeting where the

joint recommendation can be presented. This approach will only be used when time limitations require it.

C. Litigation Counsel

Litigation Counsel will be selected after the Systems have made a decision to pursue an active role in litigation. The panel of law firms available to be assigned cases will be expanded through a competitive process. Each firm selected must have a recognized expertise in the area of securities litigation. Special attention will be paid to experience in class actions, especially under the PSLRA, experience as counsel to other institutional investors (preferably other public pension funds), a demonstrated understanding of the special responsibilities of a public fund trustee and how public employees' retirement systems function as well as experience with corporate governance reforms.

Litigation Counsel will be selected by the Law Department based on, among other things, suitability for a particular matter (including, for example, their expertise in the jurisdiction in which a case is being brought and expertise in the particular type of suit. For each case approved by the Systems, the Law Department will invite pool members, ~~who did not~~including those who served¹⁹ as members of the Evaluation Team for that case, to submit written proposals for handling the litigation. The proposal will focus on the litigation factors discussed in Section IV, B of this Protocol and propose the most appropriate strategy for the conduct of the litigation. The proposal will also include a fee schedule. Selection of counsel for any given case will be based on an evaluation of the litigation strategy proposed, the suggested fee and the expertise and resources of the firm. Thus increasing the size of the panel will also increase competition regarding the fee to be charged against any recovery by the Funds, and, in PSLRA cases, the recovery of other class members.

Interaction with the Systems

The Law Department will also issue a monthly report to the Systems, which will include significant potential cases being evaluated as well as the status of pending securities litigation. The Systems will make the final determinations on whether to proceed or not with a particular securities law case. In the event that there is disagreement amongst the Systems with regard to a particular course of action, the Systems may wish to consider acting independently. The advisability of such independent action would have to be examined on a case by case basis.

TRS Counsel shall serve as liaison between the Board and the Law Department in order to keep the Board advised on securities litigation issues, provide written opinions to the Board and convene voice votes and/or special meetings. TRS Counsel shall be included in meetings with and on the distribution list for the Evaluation and Litigation Counsel and shall review any joint recommendations from the Law Department and the

¹⁹ In April 2013, the Board adopted a resolution to omit the requirement that evaluation counsel is not eligible to serve as litigation counsel in the same matter.

OTC after such recommendation is made to the Board to pursue a particular case as described in Section IV, B of this protocol. The Fund Counsel shall also review the Law Department's monthly litigation report to the Board once it is issued.

134. PROXY VOTING POLICIES AND PROCEDURES²⁰

Generally, the Board favors proposals that further disclosure and increase access to information about a company in which the System has an ownership interest. The Board also supports proposals that encourage management to pursue socially desirable goals that do not negatively affect the System's investments. The Board generally does not favor proposals to require immediate discontinuation of a particular business or product that is lawful, although certain exceptions to this rule exist as set forth in the TRS~~SB~~ Proxy Voting Guidelines ("Guidelines").

PROXY SUBCOMMITTEE AUTHORITY

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The ~~S~~sub-~~C~~ommittee consists of three parties: Teacher Representative, Comptroller Representative and Mayoral Representative. All actions of the ~~S~~sub-~~e~~Committee must be subsequently ratified by the full Board. The Sub-~~C~~ommittee recommends for Board approval shareholder resolutions to be filed at various companies. The ~~S~~sub-~~e~~Committee considers the OTC's recommendations for voting proxy issues that are not covered by TRS' Proxy Voting Guidelines ~~and, on behalf of the Board, promulgates voting policies and procedures on such issues and, on behalf of the Board, promulgates voting policies and procedures on such issues.-~~

In fulfilling the Proxy Voting Policy of the Board, the following procedures shall be used.

Each year, the Proxy Sub-~~c~~ommittee, on behalf of the Board, reviews the OTC's recommendations for shareholder proposals and target companies, and decides which proposals and companies will comprise TRS' annual shareholder proposal program.

The Chair, ~~or any member of the Subcommittee,~~ or the OTC with notification of the Chair, ~~or the Executive Director or his designee, may shall~~ call all Subcommittee meetings. If time does not allow a meeting to be called, the Chair or the OTC shall set up a conference call among the ~~Sub~~committee members and the OTC's staff. If a conference call is not feasible, the Chair or the OTC shall conduct a telephone ~~or an e-mail~~ poll of ~~the Sub~~committee members. If a Trustee is not available his/her vote shall be recorded as an abstention.

In voting proxies, the Comptroller shall follow the latest approved TRS' Proxy Voting Guidelines ("Guidelines"):

Vote Action – For Proposal

²⁰ New Proxy Voting Guidelines and additional methods for communicating with the Committee were adopted in April 2012.

The OTC shall vote FOR a proposal if such proposal is consistent fully with the ~~Guidelines, amendments to such Guidelines provisions stipulated in the, resolutions/policies promulgated of the Teachers' Retirement Board or as directed by the Board or~~ by the TRS Proxy Subcommittee Committee of the Board.

Vote Action – Against Proposal

The OTC shall vote AGAINST a proposal if ~~so directed by the Board or the Subcommittee or if~~ such proposal is inconsistent with or contrary to, the philosophy, intent and spirit of the ~~Guidelines, amendments to such Guidelines, resolutions/policies promulgated by the TRS Proxy Committee, of the Board or as directed by the Board or by the Subcommittee.~~

Vote Action – Abstain

Absent enabling TRS resolutions/policies and past history, or the availability of adequate information, the OTC shall ABSTAIN.

If time does not permit the OTC to present to the Proxy ~~Sub~~Committee, for its review and voting decision, a proposal with voting-policy recommendation and adequate background information, the OTC shall ABSTAIN.

~~The OTC shall also ABSTAIN on a proposal if so directed by the Board or the Subcommittee, or if the Subcommittee does not respond to a request before the date that the proxy card must be voted.~~

Review of New Issues

Each spring, ~~preceding the proxy voting season,~~ the OTC -and the Proxy ~~Subcommittee Committee~~ shall ~~convene-meet~~ to review new proxy issues. ~~In addition, the Sub~~The Proxy Committee may review and revise existing policies and procedures.

Proposal not Covered by Existing Board Resolution – Time Permitting

If time permits, the OTC shall present to the Proxy ~~Subcommittee~~Committee, for review, deliberation and vote decision, proposals pertaining to issues, which are not covered by past practice or existing policies. To facilitate this process, the OTC shall provide the Board the full text of such proposals, supporting and opposing statements, and other available background information that would represent fairly the views of proponents and opponents of issues.

Proposal not Covered by Existing Board Resolution – Time Limited

In the event that the distribution of proxy statements is delayed through corporate, postal, or other setback, particularly as it relates to issues not covered by past practice or existing policy, the OTC or the Chair shall conduct a telephone conference call of the members of the Proxy ~~Subcommittee Committee~~ and the Comptroller's Staff and obtain the votes of the members on the proposal. If a conference call is not feasible, the Chair or the OTC shall conduct a telephone ~~or an e-mail~~ poll of committee members. The OTC shall be guided by the consent of a ~~Teacher Representative and one City Representative~~ simple majority. In the event of ~~the inability a deadlock to obtain the required Subcommittee votes~~, the OTC shall ABSTAIN.

Mergers and Acquisitions²¹

The Comptroller's Office casts votes on mergers and acquisitions consistent with the Proxy Voting Guidelines adopted by the Trustees.

Reports to the Trustees

~~Prior to the 15th day of each January, April, July, and October, the OTC shall deliver to the Board a comprehensive, consolidated statement of all voting activity for securities managed on behalf of the System during the fiscal quarter ending on the last day of the immediately preceding month. The statement shall be in alphabetical order by Company and will identify for each vote: (i) the Company and date of meeting; (ii) the number of shares and CUSIP number; (iii) the subject of the proposal (rather than the proposal number); (iv) the management's suggested vote; and (v) the vote cast.~~

~~Additionally, the OTC shall submit annual summary²² reports to the Proxy Subcommittee Committee on the results of the TRS' annual shareholder proposal program, and on votes cast by the Comptroller's Office against management director nominees.~~

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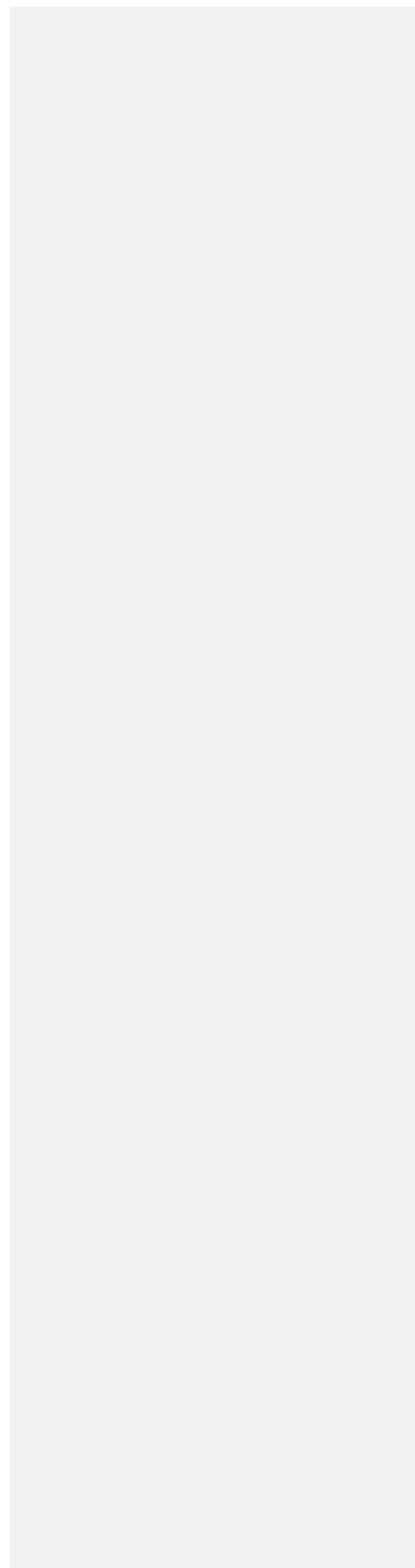
²¹ New Proxy Voting Guidelines governing votes on mergers and acquisitions were adopted in April 2012.

²² Summary reports were accepted by the Committee since the Fall of 2001 reporting.

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142. Ethics and Compliance Policy

I. Purpose of the Policy

The Board, in furtherance of the management and investment of the assets of TRS, have determined to establish a comprehensive written Ethics and Compliance Policy (the "Policy") for investment consultants (the "Consultants") and for investment managers (the "Managers") that do or seek to do business with TRS. The Board has requested that OTC implement the Policy on behalf of TRS.

The purposes of the Policy are:

- to identify and ensure disclosure of any potential risk, conflicts of interest and/or other ethical issues both before and after entering into contracts or transactions with the Consultants and the Managers firms;
- to ensure that proper internal compliance controls are in effect at the Consultants and Managers firms, so as to reduce the risk to TRS;
- to provide a protocol for ensuring that Consultants and Managers are in compliance with the federal securities laws and the rules of the U.S. Securities and Exchange Commission ("SEC"), and other applicable law;
- to obtain timely disclosure from the Consultants and the Managers as to actual or alleged non-compliance with the Consultants and the Managers' internal controls or with applicable law; and
- to assist OTC and TRS in identifying and responding to non-compliance on the part of any Consultant and/or Manager.

OTC will not recommend continuation of or selection of any Consultant or Manager which does not meet the standards of compliance with this Policy. In addition, a Consultant or Manager, that discloses a conflict of interest or other violation of this Policy to OTC, must refrain from giving advice or making decisions about any matters affected by the conflict of interest or other violation of this Policy, until and unless authorized by the Board.

II. Annual Certification Obligation of Consultants and Managers

Annually, on or before June 15th of each year, Consultants and Managers shall submit an Annual Certification and Compliance Statement (the "Annual Statement") to OTC, which Annual Statement shall, in addition to providing an update on conflicts of interest, include a certification, in which, at a minimum, the Consultant or Manager makes the following representations: 1) that the Consultant or Manager is a fiduciary of TRS; 2) that the Consultant or Manager has received and read the Policy; 3) that the Consultant or Manager is in full compliance with the Policy, except as disclosed in the Annual Statement; 4) that the Consultant or Manager is in full compliance with any other

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applicable policies and procedures of TRS that apply to such Consultant or Manager, except as disclosed therein; and 5) that the Consultant or Manager is in full compliance with all applicable laws and regulations.

In addition to the above certification, Consultants and Managers, in their Annual Statements, must disclose all information specified in sub-sections A and B below. Although the firm's Form ADV or other S.E.C. filings may be provided as a supplement; the firm must make full and complete disclosure in the body of the Annual Statement itself.

A. Conflicts

A conflict of interest exists for a Consultant or Manager whenever the Consultant or Manager has a direct or indirect pecuniary interest or a relationship (without regard to whether the relationship is direct, indirect, personal, private, commercial, or business) with a third party, and the interest or relationship could diminish the Consultant's or the Manager's independence of judgment in the performance of the Consultant's or the Manager's responsibilities to TRS.

Consultants and Managers must promptly disclose conflicts of interest in writing to OTC, which shall promptly disclose such conflicts to TRS for review.

1. Relational Conflicts, Generally

- a) Each Manager/Consultant is required to include a written statement to OTC specifying its affiliates and the lines of relationship between itself and said affiliates, their lines of business, and whether affiliates have any role in the investment process related to TRS.
- b) Each Manager/Consultant must also disclose to TRS, at least annually, any actual or potential conflicts of interests between the Manager/Consultant (including its affiliates) and TRS, such as with respect to: i) investment of TRS assets in investment vehicles marketed or managed by the Manager/Consultant or affiliates; ii) allocation of investment opportunities as between TRS and either the Manager/Consultant, affiliates or other clients; or iii) use, on behalf of TRS, of services provided by affiliates, such as brokerage or auditing services. Managers/Consultants must also promptly notify OTC of any additional such conflicts that have arisen since the last Annual Statement.
- c) Managers/Consultants must also report to TRS the procedures in place to prevent such conflicts and/or mitigate their effects should they occur; and of the Manager's/Consultant's policy in relation to the allocation of investment opportunities among its affiliates, between itself and outside clients, and also among outside clients.

2. Compensation Conflicts

- a) Managers/Consultants must disclose to TRS all matters, including beneficial ownership of securities or other investments that reasonably could be expected to interfere with their duty to TRS or with their ability to make unbiased and objective

decisions in the investment of TRS's assets. Managers/Consultants must also promptly notify TRS of any additional such matters that have arisen since the last Annual Statement.

b) Managers/Consultants must also disclose to TRS:

i) all monetary compensation or other benefits that are in addition to compensation or benefits conferred by TRS, and that they, their affiliates or their personnel have received or may receive for any services performed or to be performed that relate in any way to assets of TRS, including services for "portfolio companies" of the TRS (those companies whose securities the Manager holds on behalf of TRS, other than in an index fund);

ii) any referral fees or other consideration or benefit received by the Manager/Consultant or delivered to others for the recommendation of any services to TRS; and

iii) the full details of any services for portfolio companies of TRS that the Manager/Consultant has undertaken, performed, or agreed to perform.

c) Managers/Consultants must also promptly notify TRS of any additional such compensation or benefits or earned, received or agreed, or services undertaken, performed, or agreed to, to since the last Annual Statement.

3. Conflicts Relating to TRS's Other Advisors

a) Managers must disclose whether any Consultant is an affiliate of the Manager. Consultants must disclose whether any Manager an affiliate of the Consultant. Affiliate for this purpose includes a parent, subsidiary, debtor, creditor, entity under common ownership, entity in which the Manager/Consultant has invested or which has an investment in the Manager/Consultant or entity with which the Manager/Consultant has a strategic alliance. If yes, the Annual Statement must include a detailed description of the nature of the affiliation.

b) Managers must further disclose whether in the past five years, the Manager or any affiliate of the Manager has paid any compensation to any Consultant, or entered into any agreement with any Consultant, under which the Manager or any affiliate of the Manager may pay compensation in the future. Compensation for this purpose means any payment, product or service, and includes, but is not limited to, conference registration fees, research or consulting fees, and brokerage commissions, paid either directly or through soft-dollar arrangements. If so, the Annual Statement must, with respect to each and every Consultant, describe in detail:

- I. the full name of the Consultant;
- II. the amount(s) of the compensation;
- III. the year(s) in which it was paid;

- IV. the purpose of the compensation; and
- V. the terms of the agreement.

c) Consultants must further disclose whether in the past five years, the Consultant or any affiliate of the Consultant, has paid to or received from Manager any compensation, or has entered into any agreement with any Manager, under which the Consultant or any affiliate of the Consultant may pay or receive compensation in the future. Compensation for this purpose means any payment, product or service, and includes, but is not limited to, conference registration fees, research or consulting fees, and brokerage commissions, paid either directly or through soft-dollar arrangements. If so, the Annual Statement must, with respect to each and every such Manager, describe in detail:

- I. the full name of the Manager;
- II. the amount(s) of the compensation;
- III. the year(s) in which it was paid;
- IV. the purpose of the compensation; and
- V. the terms of the agreement.

d) Consultants must further disclose:

- (i) whether they have any arrangements with broker-dealers under which they or an affiliate will benefit if any Managers place trades for TRS with such broker-dealers, and if so, must disclose the full details of those arrangements; and
- (ii) what percentage of their public pension plan or ERISA clients utilize investment managers, investment funds, brokerage services or other service providers from whom the Consultant or any affiliate receives fees.

e) Managers that have “soft dollar” arrangements with broker-dealers must further disclose whether, in connection those arrangements, they have received any of the following three categories of compensation from any broker-dealer in the past twelve months, and if so, must disclose in detail what they received in those three categories, and from whom

- (i) physical or tangible items, such as computer hardware and accessories, phone lines or office equipment;
- (ii) payment of travel expenses or meals or entertainment associated with attending seminars; or
- (iii) software or consultant services that relate primarily to a Manager’s internal management or internal operations.

B. Compliance With Law

Managers and Consultants, as applicable, shall further certify the following:

1. Managers/Consultants Must Have a Code of Ethics.

Every Manager/Consultant must have a Code of Ethics that satisfies the requirements of Rule 204A-1 under the Investment Advisers Act, regardless of whether the Manager/Consultant is required to register under that Act.

2. Managers/Consultants Must Have Third-Party Review of Controls.

a) Each Manager/Consultant must certify that it has a periodic review of its Compliance Manual and compliance controls by an independent third party at least once every 3 years. Internal review by the General Counsel, Chief Compliance Officer, or similar official of the firm or any of its affiliates does not qualify as an independent review. If the Manager/Consultant has not yet completed an independent third-party review, the first review must be completed no later than June 2008. However, Managers/Consultants first entering into contract(s) with TRS after June 2005 must complete their first such review no later than 3 years from the date of the initial contract with the TRS. Should any third-party review identify any deficiencies in the compliance controls or Compliance Manual, the firm must provide to OTC a copy of the third-party's report and an explanation of any remedial actions taken or planned.

b) In addition to the third-party review of the Compliance Manual and compliance controls, TRS encourages Managers managing assets aggregating over \$3 billion for all clients to have conducted at least a Level I SAS 70 review, or the equivalent of a SAS 70 in the country of incorporation or formation. The third-party review of the Compliance Manual and compliance controls may be conducted as an explicit add-on to a SAS 70 review.

3. Managers/Consultants Must Monitor Personal Trading.

Each Manager/Consultant must certify that it has a written personal trading policy with an established method for monitoring same. For Managers/Consultants managing, or advising as to, assets aggregating over \$3 billion for all clients, TRS encourages the use of an automated system, such as STAR Compliance. The Manager/Consultant must report in detail any personal trading violations within the last 12 months and report the Manager/Consultant's response to it. It is acceptable if the disclosure of these violations is grouped according to categories of violations and of employees in some reasonable manner.

4. Managers Must Have a Policy on Mutual Funds Trading.

The Manager must certify that it has a written policy on disclosure of market timing and late trading of mutual funds, where applicable, which should comply with the requirements of the SEC RIN 3235-A199. The Manager should notify OTC, i) annually; and ii) promptly upon occurrence, of any violations and/or investigations by any government agency or any securities exchange involving or against the Manager or any

of its personnel within the last three years with respect to such trading.

5. Managers Must Report Prior Guideline Violations.

Managers are required to include a report to OTC on any inquiry or other action by any government agency relating to the improper sale within the last three years by the Manager to any person of any restricted securities (such as those covered by Rule 144a).

6. Managers/Consultants Must Provide Updates on Government Investigations and Enforcement Actions.

- a) Managers and Consultants must, unless prohibited by law, regularly and promptly provide updates to OTC in detail with respect to the commencement of, status of, or significant developments in, any government investigation of the Manager or Consultant or its employees in connection with any potential violations of applicable laws, or any enforcement action in connection therewith.
- b) Managers and Consultants must promptly provide such updates, and must promptly provide all disclosure called for by this Policy, regardless of whether the Manager or Consultant is required to file an S.E.C. Form 8K or is yet due to file a Form ADV.

III. Non-Compliance with this Policy - Reporting Requirements

OTC Will Report Non-Compliance to the Board

To the extent OTC receives or obtains information indicating that the Consultant or Manager is substantially out of compliance with the Policy and/or substantially in violation of applicable law, OTC will report such information to the Board for whatever action the Board deems appropriate, which may include termination of the Consultant or Manager.

IV. Dissemination of Policy to Consultants and Managers

A. Current Consultants and Managers

Upon adoption of this Policy by the Board, OTC shall immediately forward copies of the amended Policy to all current Consultants and Managers.

B. Prospective and New Consultants and Managers

1. Consultants and Managers seeking to do business with TRS will be required to certify compliance with the Policy, and provide the disclosures required by the Policy, at the time they submit their response to a Request for Proposals ("RFP") or, in the event that there is no RFP process, during the selection process.

2. If awarded a contract with TRS, including any assignment of an existing contract, all new Consultants and Managers will be required to file with OTC, prior to signing the contract, their first Annual Certification and Compliance Statement, as described above (the "Initial Statement"). If the date of a new Manager/Consultant's submitting its initial statement is after January 1 of a given year; then on June 15 of that year, the Manager/Consultant need only file a statement disclosing any updates to the information contained in its Initial Statement.

153. Principles for Responsible Investment

As institutional investors, we have a duty to act in the best long-term interests of our beneficiaries. In this fiduciary role, we believe that environmental, social, and corporate governance (ESG) issues can affect the performance of investment portfolios (to varying degrees across companies, sectors, regions, asset classes and through time). We also recognize that applying these Principles may better align investors with broader objectives of society. Therefore, where consistent with our fiduciary responsibilities, we commit to the following:

1. We will incorporate ESG issues into investment analysis and decision-making processes.

Possible actions:

- Address ESG issues in investment policy statements
- Support development of ESG – related tools, metrics, and analyses
- Assess the capabilities of internal investment managers to incorporate ESG issues
- Assess the capabilities of external investment managers to incorporate ESG issues
- Ask investment service providers (such as financial analysts, consultants, brokers, research firms, or rating companies) to integrate ESG factors into evolving research and analysis
- Encourage academic and other research on this theme
- Advocate ESG training for investment professionals

2. We will be active owners and incorporate ESG issues into our ownership policies and practices.

Possible Actions:

- Develop and disclose an active ownership policy consistent with the Principles
- Exercise voting rights or monitor compliance with voting policy (if outsourced)
- Develop an engagement capability (either directly or through outsourcing)

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- Participate in the development of policy, regulation, and standard setting (such as promoting and protecting shareholder rights)
- File shareholder resolutions consistent with long-term ESG considerations
- Engage with companies on ESG issues
- Participate in collaborative engagement initiatives
- Ask investment managers to undertake and report on ESG-related engagement

3. We will seek appropriate disclosure on ESG issues by the entities in which we invest.

Possible Actions:

- Ask for standardized reporting on ESG issues (using tools such as the Global Reporting Initiative)
- Ask for ESG issues to be integrated within annual financial reports
- Ask for information from companies regarding adoption of /adherence to relevant norms, standards, codes of conduct or international initiatives (such as the UN Global Compact)
- Support shareholder initiatives and resolutions promoting ESG disclosure

4. We will promote acceptance and implementation of the Principles within the investment industry.

Possible Actions:

- Include Principles-related requirements in requests for proposals (RFPs)
- Align investment mandates, monitoring procedures, performance indicators and incentive structures accordingly (for example, ensure investment management processes reflect long-term time horizons when appropriate)
- Communicate ESG expectations to investment service providers
- Revisit relationships with service providers that fail to meet ESG expectations
- Support the development of tools for benchmarking ESG integration
- Support regulatory or policy developments that enable implementation of the Principles

5. We will work together to enhance our effectiveness in implementing the Principles.

Possible Actions:

- Support/participate in networks and information platforms to share tools,

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- pool resources, and make use of investor reporting as a source of learning
- Collectively address relevant emerging issues
- Develop or support appropriate collaborative initiatives

6. We will each report on our activities and progress towards implementing the Principles.

Possible Actions:

- Disclose how ESG issues are integrated within investment practices
- Disclose active ownership activities(voting, engagement, and/or policy dialogue)
- Disclose what is required from service providers in relation to the Principles
- Communicate with beneficiaries about ESG issues and the Principles
- Report on progress and/or achievements relating to the Principles using a 'Comply or Explain'¹ approach
- Seek to determine the impact of the Principles
- Make use of reporting to raise awareness among a broader group of stakeholders

¹The Comply or Explain approach requires signatories to report on how they implement the Principles, or provide an explanation where they do not comply with them.

The Principles of Responsible Investment were developed by an international group of institutional investors reflecting the increasing relevance of environmental, social and corporate governance issues to investment practices. The process was convened by the United Nations Secretary-General.

In signing the Principles, we as investors publicly commit to adopt and implement them, where consistent with our fiduciary responsibilities. We also commit to evaluate the effectiveness and improve the content of the Principles over time. We believe this will improve our ability to meet commitments to beneficiaries as well as better align our investment activities with the broader interests of society.

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TEACHERS' RETIREMENT SYSTEM
OF THE CITY OF NEW YORK

PRIVATE EQUITY INVESTMENT POLICY

Adopted: September 11, 2003
Amended: October 4, 2012

I. SCOPE

The Private Equity Program Investment Policy Statement (the "IPS") applies to the Private Equity Program assets within the Teachers' Retirement System of the City of New York ("TRS", the "Fund", or the "System").

II. PURPOSE

The IPS provides the broad strategic framework for managing the Systems' Private Equity assets. The design of the IPS ensures that Managers, Advisors, Consultants and other participants selected by the System adhere to the investment principles and guidelines of TRS. Additionally, the use of the IPS assures sufficient flexibility in managing investment risks and returns associated with the Private Equity Program (the "Program").

III. INVESTMENT PHILOSOPHY

The Private Equity program seeks superior equity returns with individuals and Managers who have a consistent record of producing top quartile returns. Private equity assets also allow TRS to invest in the portion of the global economy which is not publicly-traded as well as to access strategies which benefit from longer holding periods.

IV. STRATEGIC OBJECTIVE

The System has mandated investments in Private Equity Assets¹ as part of its strategic asset allocation to:

- A. Increase the diversification of its assets.
- B. Take advantage of the ability to accept illiquidity in exchange for an illiquidity premium.
- C. Make investments that have less correlation to public markets.
- D. Invest with Managers who have demonstrated the ability to or have the potential to outperform Russell 3000+300 or Performance Objective returns as compared to similar investments.
- E. Reduce the volatility and increase the risk-adjusted returns of the overall portfolio of the System.

The System also expects that commitments to and investments in Private Equity Assets will establish, maintain and continually improve the reputation of the System as an investor, and that the System will make both continuous use of and contributions to the best practices of investors in Alternative Investments. The Fund will seek investments in which the proposer demonstrates a commitment to standards of good conduct, including compliance with all Federal, State and local laws, including, but not limited to, labor, anti-discrimination, environmental, and health and safety laws, and will reject investments that would pose reputational risk to the Fund or bring public or regulatory scrutiny other than

¹ Private Equity Assets are non-traditional investments made with the objective of achieving returns that are greater than those earned in the traditional public equity and debt markets. Alternative asset class components may be broadly categorized as (1) non-marketable, illiquid assets, and (2) marketable, liquid securities managed in a non-traditional format. Special debt, private equity, (including venture capital) real-estate-related investments, oil and gas, as well as timber, are examples of non-marketable assets. Risk arbitrage, commodities and derivatives are examples of the more liquid alternative asset types.

that which is required by law or regulation to consummate an investment transaction. The Fund will not entertain investments that have the potential of eliminating public-sector jobs. The Fund encourages the submission of proposals for review from proposers that demonstrate a strong commitment to diversity in their firms.

The Fund seeks to employ Emerging Managers¹. Emerging Managers are asset managers the Board believes will add significant value to the Fund through implementation of investment strategies consistent with the Board's asset allocation and other policies, but which, because of size, length of track record, or other similar factors, have not been awarded contracts through the Board's manager selection process².

As part of TRS' continued commitment to drive asset class best practices and support long-term partnerships between Limited Partners and General Partners the Fund will strive to adhere to the Institutional Limited Partner Association's ("ILPA") guiding principles emphasizing alignment of interest, governance and transparency.

The operation of the Program is subject to the exclusive benefit rule and all other applicable laws, including requirements of prudence.

V. ASSET ALLOCATION

Asset allocation is a critical driver for the long-term success of the private equity program. Since it is not possible to rebalance quickly in private equity, pacing and manager selection have heightened importance as tools to influence allocation. Pursuant to a 2011 asset allocation study performed by the System's general consultant, Rocaton Investment Advisors, LLC ("Rocaton"), the Board has adopted an allocation to Private Equity of **6.0%** of the market value of the total assets of the System **plus or minus 2.0%**. Long-term asset allocation targets have been developed with the assistance of the System's Private Equity Consultant, Hamilton Lane, and the strategies are denoted below:

Strategy
Buyout
Growth Equity
Special Situations/Turnaround
Energy
Secondary
Co-Invest
Other

VI. RESPONSIBILITIES AND DELEGATION

A. Role of Board of Trustees

The Board of Trustees (the "Board") is responsible for reviewing and approving Policies, including the IPS. In addition the Board shall:

- Review the Program at least annually and approve and adopt the Annual Private Equity Plan.
- Approve the retention of strategic consultants, advisors and other external

¹ Emerging Managers are sponsors targeting capital raises up to \$750 million and investing through funds I – III. Emerging Managers include Minority & Women-Owned Business Enterprise ("MWBE")

² Per TRS' Core IPS dated June 15, 2006

resources, as needed.

- Oversee performance, risk and execution of the Program.
- Approve investment recommendations.
- Delegate investment approval authority as appropriate.
- Approve and/or ratify exceptions to the Annual Private Equity Plan as triggering events may arise.

B. Role of Comptroller's Office Staff

The duties of the Comptroller's Office Staff ("Staff") include, but are not limited to:

- Reviewing and recommending changes to the IPS, developing and implementing periodic reviews of the Program, which shall occur at least annually, and managing the operations of the Program.
- Working with the System's Consultants to develop and implement an Annual Private Equity Plan, identifying and evaluating private equity strategies, investment managers and investments appropriate for the Program, and making selection recommendations to the Board.
- As needed, identifying and evaluating strategic consultants and advisors and other external resources for the Program, and making selection recommendations to the Board.
- Overseeing the System's portfolio of Program investments, including management of consultants and advisors and other external resources engaged on the System's behalf in connection with the Program with the objective that the System obtains the maximum value from those relationships.
- Monitoring and reporting on the performance metrics as provided by the Managers with respect to the overall purpose and objectives of the Program; and monitoring and reporting on the performance of the consultants at least annually.
- Recommend the sale of LP interests, in the secondary market, to optimize the Program's performance.
- In a discretionary capacity, work with the Consultant to implement the Emerging Manager component of the Program including the selection of Managers, portfolio construction and as an Investment Committee member. The Investment Committee includes the Consultant, Head of Private Equity, Executive Director of Private Equity - Emerging Managers and the Chief Investment Officer. The Board will be apprised of the progress of this aspect of the Program periodically.

C. Role of Private Equity Consultant

TRS retains a private equity consultant (the "PE Consultant") to assist in the implementation of its strategic allocation to the private equity asset class. The strategic allocation to the asset class is recommended to the Board by Rocaton. The PE Consultant is a fiduciary and advises Staff and TRS on all aspects of its private equity investment program. The responsibilities of the PE Consultant(s) include, but are not limited to:

- Providing strategic advice:
 - Providing advice to the Board and Staff with respect to the development and operation of the Program, including advice on industry developments and portfolio construction.
 - Assisting the Board and Staff in developing the IPS and in periodic reviews of the IPS and the Program.

Together with Staff, provide an annual and a longer-term Private Equity plan for the Program.

- Periodic assessments of industry best practices with regard to policies and procedures.
 - Analysis of TRS' existing private equity portfolio.
 - Periodic reports on the state of the private equity marketplace.
 - Attending meetings of the Board and providing educational seminars for the Trustees.
 - Such other strategic advice and services as TRS or Staff may reasonably require.
- New investment identification and evaluation, including:
 - Assisting Staff in identifying, evaluating and recommending investment opportunities and terminations consistent with the IPS and believed to be appropriate for the Program, including conducting due diligence with respect to new investments, as requested.
 - The manager's ability to comply with the Board's investment policies and restrictions.
 - Periodic reports on current and anticipated investment opportunities.
 - Assisting Staff with the implementation, negotiation and execution of new commitments and/or investments.
 - Portfolio monitoring:
 - Assisting Staff with the ongoing review of committed investments, including reports to the Board on significant manager developments, proposed amendments to fund documentation and investment performance.
 - Periodic and real-time reports on developments and performance of individual partnerships in the TRS portfolio.

D. Role of Custodian Bank/Alternatives Administrator

The Custodian Bank and/or Alternatives Administrator shall be responsible for reviewing and certifying all Program cash flow authorizations (such as capital calls and distributions).

VII. PERFORMANCE OBJECTIVE

The performance of the Program shall be measured against the following benchmark:

A. Opportunity Cost:

The expected long-term performance objective of the Private Equity program shall be measured against the 10-year average of the Russell 3000 Index (one quarter lag) plus a 300 basis point risk premium. The performance objective is net of fees and expenses. Use of the Russell 3000 Index reflects the opportunity cost of investing in Private Equity investments versus publicly traded common stocks. The 10-year average smoothes short-term volatility and is intended to cover at least one complete market cycle, consistent with the anticipated average term of the partnership investments. The index shall be modified to reflect the Program's actual cash flows.

Staff shall report regularly to the Board on performance of individual investments and of the Program as a whole in comparison to an appropriate sector based benchmark (e.g. Thompson One, etc.).

VIII. INVESTMENT OPERATIONS

A. General Approach

The Staff shall review and manage investments using a disciplined but opportunistic management strategy. Guided by the Annual Private Equity Plan (see below), Staff shall use a "top-down" approach to making assessments as to appropriate strategic weightings within the portfolio. Staff then shall seek to identify the most attractive investment opportunities available consistent with the Annual Private Equity Plan and with the goal to be diversified prudently across strategies, industries, partnerships and geography.

B. Annual Plan

Investments made under the Program shall be made in accordance with the Annual Private Equity Plan (the "Annual Plan"). Staff along with the Consultant shall present the Annual Plan to the Board, no later than 90 days after the previous calendar year end, for the Board's approval, which will provide guidance to the Staff and Consultant in the management, operations and investments of the Program. The Annual Plan shall include an elaboration of a target strategic allocation within the Private Equity asset class.

C. Pacing

The Annual Plan shall recommend commitment ranges to be made by the System within each strategy as well as a total target commitment for the System (the "Pacing Analysis") in order to achieve both the target strategic allocation and the overall allocation to the private equity asset class. The Pacing Analysis shall take into account the System's overall allocation to and investments in the Private Equity asset class, within each strategy, across industries and geography, and by vintage as well as the market environment and such other considerations as are appropriate. The Program shall strive to avoid inappropriate concentrations in strategies, industries, geographic areas, funds, managers or vintage years.

D. Investment Guidelines

1. Investment Types

This IPS authorizes commitments to private equity partnerships, fund of funds partnerships and separate accounts investing in private equity partnerships. These investments may be in any type of security throughout the capital structure. This IPS also allows for structures which may not conform precisely to the previous list but whose intent is to capture private equity exposure and returns while insulating the System from liability in excess of the amounts invested.

2. Co-Investment and Direct Secondaries

Investment rights may include opportunities for additional capital participation through co-investment or other side-by-side direct investment opportunities. Secondary investments include the purchase of LP interests, co-investments or other pooled investment vehicles.

3. Emerging Equity Markets

TRS will only participate in private market investments that are located and/or are organized or principally operating in Permissible Markets. Permissible Markets are defined as countries in which "Gross National Income per Capita," as reported in the most recent "World Development Indicators" published by the World Bank, is at or above the thresholds established by the World Bank for countries to be categorized as "High Income." The current list of Permissible Markets is attached as Exhibit A.

Staff shall ensure that Managers and the PE Consultant(s) are provided with TRS' permissible markets list, including any updates to the list.

The Board recognizes that in order to comply with the investment restrictions, Staff will negotiate an opt-out right in respect of the restrictions. Therefore, the application of the investment restrictions may affect the Fund's access to certain private equity funds that do not permit its investors to opt out and be excused from making particular fund investments. In addition, the investment restrictions may require that, from time to time, the Fund opt out of certain investments made by the funds to which capital is committed. This may affect the overall performance of the investment in such particular funds, but the Board has determined that investing absent such policies poses a greater investment and reputational risk overall.

Staff, with the assistance of the Consultant, is hereby delegated the authority to evaluate and determine whether individual investments proposed by a fund to which TRS has committed capital violate the investment restrictions. Staff will apply their good faith judgment in cases where the applicability of an investment restriction is unclear in order to comply with the intent of the restriction.

4. Separate Managed Accounts

The Program may, from time to time, use funds of funds or Managers with discretionary mandates to accomplish investment strategies and activities.

E. Exceptions to the IPS

From time to time, the Program may require exceptions to this IPS. In the event that an exception is required, the following procedures shall be followed:

1. Non-Urgent¹ matters requiring an exception to this IPS will be addressed at the next scheduled TRS investment meeting. The Board shall be provided a detailed written summary and rationale warranting a potential exception to the IPS. Exceptions will only be granted with Board approval (vote, motion, etc.).
2. For urgent matters² (time-sensitive) requiring an exception to this IPS, the Staff will notify the Board, in writing or via electronic mail, as soon as practicable of the matter requiring the need for an exception to the IPS. A documented phone vote granting the exception may be obtained and the Board will ratify the decision at the next scheduled monthly investment meeting.

IX. RISK MANAGEMENT

Private Equity does not lend itself to traditional quantitative measures of risk such as standard deviation and benchmark tracking error. Rather, risk is managed through a combination of quantitative and qualitative constraints. The following sections identify the most significant risks with private equity investments and the method of control. The Program will only consider investment structures that provide limited liability to the System.

A. Liquidity

Private equity investments are illiquid and typically have expected holding periods of 10-12 years. Investments are typically held until maturity and selling prior to maturity generally results in a discount to fair market value. Asset allocation exposure is controlled through the investment pacing described in the Annual Plan. The Board recognizes that lowering the private equity target allocation may result in forced sales and increased exposure to liquidity risk.

B. Vintage Risk

Vintage refers to the year of first capital draw and vintage risk refers to the variability of private equity commitments over time. The Annual Plan controls the short and long-term investment pacing that minimizes vintage risk while achieving targeted exposure.

C. Manager Risk

Manager risk is the impact that a general partner has on the selection of investments to put in the portfolio. It is usually manifested in two ways: the size of the Program's exposure to a particular partnership, and the number of general partners in the private equity portfolio. Partnership exposure is controlled through careful selection and by limiting the commitment size to a partnership. The maximum commitment to a partnership is limited to the lesser of **15%** of a fund-raise, or **\$300** million. The **15%** limit does not apply to a fund of funds manager or a separate account.

The optimum number of general partners in the portfolio varies with time and is controlled by the Annual Plan.

Firm risk is the exposure to a private equity manager or general partner and is controlled by limiting the total exposure (defined as unfunded commitments plus net

¹ Non-Urgent matters are defined as those not requiring an affirmative decision prior to the next scheduled TRS investment meeting.

² Urgent matters are defined as those requiring an affirmative decision prior to the next scheduled TRS investment meeting.

asset value) to pooled investment vehicles operated by a general partner and/or its affiliates. The Program's maximum total exposure to a general partner and its affiliates is limited to **15%** of the total exposure of the Private Equity Program.

D. Currency

The Private Equity Program accepts the currency risks consistent with the geographic constraints. Private equity partnerships generally do not hedge currency risk and the Private Equity Program will not implement currency hedges.

E. Industry

Typically, private equity partnerships are permitted to invest in a wide variety of industries with limited controls. Industry risk is controlled primarily through appropriate diversification across classes and subclasses.

F. Leverage

General partners invest capital from private equity partnerships throughout the capital structure of firms. The capital markets control the maximum leverage available to the general partners and limited partners control leverage exposure through partnership selection and portfolio construction.

G. Market Value

Market value refers to portfolio company market value.

X. INVESTMENT / EVALUATION CRITERIA

Staff shall develop and maintain selection guidelines for Private Equity investments to include the following minimum requirements:

- The principals shall demonstrate relevant experience and expertise in the strategy they propose to execute and the market in which they propose to operate.
- The principals shall demonstrate requisite skills and experience necessary to execute the proposed strategy, including evidence from similar prior accomplishments.
- The principals shall demonstrate an ability to cooperate and to work well together over the long term and to manage a stable organization.
- The principals shall dedicate a sufficient proportion of their time and effort to the proposed investment vehicle.
- The principals shall make a meaningful personal financial commitment to the proposed investment.
- The principals shall be individuals of high character and solid professional reputation.
- The proposed strategy and business plan shall be set forth in sufficient detail as to permit substantive and meaningful review of the investment opportunity, verification of the investment concept and evaluation of the appropriate risk factors.
- TRS will reject investments that would pose reputational risk to the Fund or bring public or regulatory scrutiny other than that which is required by law or regulation to consummate an investment transaction.

- TRS will not entertain proposals that have the potential of eliminating public-sector jobs.
- The proposed strategy and business plans shall provide reasonable assurance that the investment opportunity can produce the target return.
- The risk anticipated in the strategy and market is justified by and compensated for by the proposed investment, based on reasonable assumptions.

Primary emphasis will be on the quality and experience of the general partners, sponsors or managing members (collectively for ease of reference "general partners") and the staff of a proposed investment. Additional factors to be evaluated shall include:

- Fit within the Annual Plan and the System's portfolio.
- Strategy: its uniqueness, the General Partner's access to proprietary deal flow, and the flexibility and likelihood of success of the firm's entry and exit strategy.
- Integrity and reputation of the General Partners, its employees and other investors.
- Depth and breadth of the General Partner's principals' and their employees' experience and expertise.
- Personnel turnover.
- Quality of overall partnership governance and management of the partnership including controls and reporting systems (including audited financials and reports to Limited Partners).
- Relationship with and reputation among existing investors (e.g., re-ups and declines).
- Relationship with existing portfolio companies, including terminated Managers.
- Relationship and reputation among banks and other sources of financing.
- Nature and quality of value-added involvement by General Partners.
- Demonstrated ability of General Partners and their employees.
- Past financial performance.
- Pre-existing commitments of General Partners (with particular emphasis on unrealized investments in previous funds).
- Alignment of employee interests with those of Principals.
- Alignment of General Partners interests with investors (General Partner investment relative to contemplated commitment, waterfall, treatment of transaction fees, clawbacks and lookbacks, operating budget, etc.).
- Appropriateness of terms and conditions.

Exhibit A

TRS Approved Equity Markets

Andorra	Greece	New Zealand
Antigua and Barbuda	Greenland	Norway
Aruba	Guam	Portugal
Australia	Hong Kong, China	Puerto Rico
Austria	Iceland	Qatar
Bahamas, The	Ireland	San Marino
Bahrain	Isle of Man	Saudi Arabia
Belgium	Israel	Singapore
Bermuda	Italy	Slovenia
Brunei Darussalam	Japan	Spain
Canada	Korea, Rep	Sweden
Cayman Islands	Kuwait	Switzerland
Channel Islands	Liechtenstein	United Arab Emirates
Cyprus	Luxembourg	United Kingdom
Denmark	Macao, China	United States
Faeroe Islands	Malta	Virgin Islands (U.S.)
Finland	Monaco	
France	Netherlands	
French Polynesia	Netherlands Antilles	
Germany	New Caledonia	

Glossary of Terms:

Sectors:

Corporate Finance/Buyout: Funds seeking to make controlling and non-controlling investments in established companies which have the potential to achieve greater value through improved performance.

Growth Equity: Partnerships formed to invest and create value in emerging companies with high growth potential.

Special Situations: Partnerships that invest using a unique strategy. Examples include distressed and turnaround, industry focused and multi-stage partnerships.

Energy: Partnerships that generate long-term capital appreciation through privately negotiated equity and equity-related investments in energy and natural resources companies.

Secondaries: A private equity vehicle formed to purchase active partnership interests from an investor.

Co-Investment: A direct investment is a purchased interest of an operating company. A coinvestment is a direct investment made alongside a partnership.

Venture Capital: An investment strategy that provides start-up or growth capital to companies in the early stages of development. Venture investments generally involve a greater degree of risk, but have the potential for higher returns.

Fund-of-Funds: An investment vehicle which invests in other private equity partnerships.

Mezzanine: An investment strategy involving the purchase of subordinated debt. These securities exist between the senior debt and equity of a holding's capital structure. Subordinated debt carries a lower level of risk than pure equity structures because they generate current income and have a more senior position in the company's capital structure.

TEACHERS' RETIREMENT SYSTEM
OF THE CITY OF NEW YORK

REAL ASSETS INVESTMENT POLICY

Proposed: December 6, 2012
Adopted December 6, 2012

I. SCOPE

The Real Assets Investment Policy Statement (the "IPS") applies to the Real Assets Program within the Teachers' Retirement System of the City of New York ("TRS" or the "System").

II. PURPOSE

The IPS provides the broad strategic framework for managing the System's Real Asset investments. The design of the IPS ensures that Managers, advisors, consultants and other participants selected by the System adhere to the investment principles and guidelines of TRS. Additionally, the use of the IPS assures sufficient flexibility in managing investment risks and returns associated with the Real Assets Program (the "Program"). The initial portfolio of the Program will include a real estate program (the "Real Estate Program", an already established asset class) and an infrastructure program (the "Infrastructure Program"). Investment Policy Statements for these component asset classes are attached as Attachments A and B, respectively. Additional asset classes may be considered in the future and their inclusion will be predicated upon Board approval and amendment of this document (e.g. timber, agriculture and direct energy assets).

III. STRATEGIC OBJECTIVE

The System has mandated investments in Real Assets as part of its strategic asset allocation to:

- A. Preserve investment capital;
- B. Provide a hedge against inflation;
- C. Provide diversification benefits due to the low correlation to other asset classes;
- D. Reduce the volatility and provide superior risk adjusted returns; and
- E. Take advantage of the ability to accept illiquidity in exchange for an illiquidity premium

The System also expects that commitments to and investments in Real Assets will establish, maintain and continually improve the reputation of TRS as an investor. The System will seek investments in which the manager demonstrates a commitment to standards of good conduct, including compliance with all Federal, State and local laws, including, but not limited to, labor, anti-discrimination, environmental, and health and safety laws, and the System will reject investments that would pose reputational risk to the Fund or bring public or regulatory scrutiny other than that which is required by law or regulation to consummate an investment transaction. The Fund will not entertain investments that have the potential of eliminating public-sector jobs. The System encourages the submission of proposals for review from managers that demonstrate a strong commitment to diversity in their firms.

The Board recognizes that in order to comply with the investment restrictions, Staff will negotiate an opt-out right in respect of the restrictions, as described more fully in

Attachment D regarding Permissible Markets.

All Real Asset investments shall be subject to fiduciary standards. The operation of the Program is subject to the exclusive benefit rule and all other applicable laws, including requirements of prudence.

IV. ASSET ALLOCATION

The Program will be funded by an allocation of 6% (plus or minus 2%) of the System's assets. This allocation will be prudently diversified by asset class as well as within each component asset class.

V. RESPONSIBILITIES AND DELEGATION

A. Role of the Board of Trustees

The Board is responsible for reviewing and approving policies, including this IPS. In addition the Board shall:

- Review the Program at least annually and approve and adopt the Annual Real Assets Plan¹;
- Approve the retention and review performance of strategic consultants and advisors and other external resources, as needed;
- Oversee performance and risk and Staff's (as such term is defined below) implementation of the Program;
- Delegate investment approval authority as appropriate;
- Approve investments/terminations of investment strategies and managers; and/or delegation of manager retention/termination to Staff and/or consultant as deemed appropriate.

B. Role of the Comptroller's Office Staff

The duties of the Comptroller's Office staff (the "Staff") include, but are not limited to:

- Identifying, evaluating and recommending investment opportunities;
- Reviewing and recommending changes to the IPS and any other policies developed as part of the Program; developing and implementing periodic reviews of the Program, which shall occur at least annually; and managing the operations of the Program;
- Working with the System's consultants on identifying and evaluating Real Asset strategies, investment managers and investments appropriate for the Program, and on making selection recommendations to the Board;

¹ The Annual Real Assets Plan will be composed of the Annual Real Estate Plan, the Annual Infrastructure Plan and plans for any other component asset classes that may be added in the future.

- As needed, identifying and evaluating strategic consultants and advisors and other external resources for the Program, and making selection recommendations to the Board;
- Overseeing the System's portfolio of Program investments, including management of consultants and advisors and other external resources engaged on the System's behalf in connection with the Program with the objective that the Fund obtains the maximum value from those relationships;
- Monitoring and reporting on the performance metrics as provided by the Managers with respect to the overall purpose and objectives of the Program; and monitoring and reporting on the performance of the consultants at least annually.
- Recommending the sale of assets in the secondary market to optimize the Program's performance.

C. Role of the Real Asset Consultants

TRS retains consultants (the "Real Asset Consultants") to assist in the implementation of its strategic allocation to Real Assets. TRS may retain different consultants for each component Real Asset class. The strategic allocation to the asset class is recommended to the Board by its General Consultant. The Real Asset Consultants are fiduciaries and advise Staff and TRS on all aspects of its Real Assets Program. The responsibilities of the Real Asset Consultants include, but are not limited to:

- Providing Strategic Advice:
 - Providing advice to the Board and Staff with respect to the development and operation of the Program, including advice on industry developments and portfolio construction.
 - Assisting the Board and Staff in developing the Real Assets Program IPS, as well as policy statements for component asset classes, and assist in conducting periodic reviews of the IPS and the Program.
 - Together with Staff, provide an annual and a longer term plan for the Program;
 - Periodic assessments of industry best practices with regard to policies and procedures;
 - Analysis of TRS' existing Real Assets Program;
 - Periodic reports on the state of the Real Asset marketplace;
 - Attending meetings of the Board and providing educational seminars for the Trustees;
 - Such other strategic advice and services as TRS or Staff may reasonably require;
- New investment identification and evaluation, including:

-
- Assisting Staff in identifying, evaluating and recommending investment opportunities and terminations consistent with the IPS and believed to be appropriate for the Program, including conducting due diligence with respect to new investments, as requested;
 - The manager's ability to comply with the Board's investment policies and restrictions;
 - Periodic reports on current and anticipated investment opportunities.
 - Assisting Staff with the implementation, negotiation and execution of new commitments and/or investments;
 - Portfolio monitoring:
 - Assisting Staff with the ongoing review of committed investments, including reports to the Board on significant manager developments, proposed amendments to fund documentation and investment performance;
 - Periodic and real-time reports on developments at and performance of individual investments in the TRS portfolio.

D. Role of Custodian Bank/Alternatives Administrator

The Custodian Bank and/or Alternatives Administrator shall be responsible for reviewing and certifying all Program cash flow authorizations (such as capital calls and distributions).

VI. EXCEPTIONS TO THE IPS

From time to time, the Program may require exceptions to this IPS. In the event that an exception is required, the following procedures shall be followed:

Non-urgent² matters requiring an exception to this IPS will be addressed at the next scheduled TRS investment meeting. The Board shall be provided a detailed written summary and rationale warranting a potential exception to the IPS. Exceptions will only be granted with Board approval (vote, motion, etc.).

For urgent matters³ (time-sensitive) requiring an exception to this IPS, the Staff will notify the Board, in writing or via electronic mail, as soon as practicable of the matter requiring the need for an exception to the IPS. A documented vote granting the exception may be obtained and the Board will ratify the decision at the next scheduled monthly investment meeting.

² Non-Urgent matters are defined as those not requiring an affirmative decision prior to the next scheduled TRS investment meeting.

³ Urgent matters are defined as those requiring an affirmative decision by the Board prior to the next scheduled TRS investment meeting.

Attachment A

Real Estate Program

Real Estate Investment Policy

I. PURPOSE

This attachment to the Real Assets Investment Policy Statement sets forth the investment policy for the Real Estate Program (the "Real Estate Program").

The inclusion of Real Estate in the investment portfolio of the System will allow for global investments in an established asset class that has been shown to (i) provide attractive risk-adjusted returns over full market cycles on a stand-alone basis and (ii) further improve risk-adjusted returns in a broader portfolio by dampening volatility and serving as a hedge against inflation.

The Fund seeks to employ Emerging Managers.⁴ Emerging Managers are asset Managers the Board believes will add significant value to the Fund through implementation of investment strategies consistent with the Board's asset allocation and other policies, but which, because of size, length of track record, or other similar factors, have not been awarded contracts through the Board's manager selection process.

II. INVESTMENT OPERATIONS

A. General Approach

The Staff shall review and manage investments using a disciplined management strategy. Guided by the Annual Real Estate Plan (defined below), Staff shall make assessments as to appropriate strategic weightings within the portfolio. Staff then shall seek to identify the most attractive investment opportunities available consistent with the Annual Real Estate Plan and with the goal to be diversified prudently across strategies, property types, vehicles, Managers and geography.

Portfolio construction will be guided by (i) broad allocation ranges for Core / Core Plus Real Estate investments and for Non-Core Real Estate investments (discussed below) and (ii) market opportunities and conditions.

B. Core / Core Plus Real Estate

The Core / Core Plus Real Estate Portfolio will be comprised of two sub-components.

- Core Real Estate Investments. Core Real Estate investments are of comparatively low risk. They consist of investments in operating and substantially leased properties of institutionally quality, consist primarily of investments in traditional property types

⁴ Criteria for Emerging Managers are set forth in the Emerging Manager policies adopted by the Board on January 27, 2007. These criteria include, among others, total assets under management not exceeding \$2 billion in aggregate, including non-institutional capital.

(office, industrial, retail and for-rent multifamily) and tend to use moderate leverage (generally below 40%). The Core Real Estate portion of the portfolio will generally track the NCREIF ODCE index fairly closely. (This is the index that underlies the System's benchmark for real estate.) Leverage in the Core Real Estate portfolio may be increased as a way to pair low risk assets with a higher risk capital structure, subject to the overall leverage limits discussed below.

- Core Plus Real Estate Investments. Core Plus Real Estate investments offer the opportunity to enhance returns by (i) alleviating an identifiable deficiency (in an asset's capital structure, in an asset's physical structure, in an asset's operation, etc.) or (ii) benefitting from market inefficiency. These investments may use slightly more leverage than Core Real Estate investments to improve returns.

C. Non-Core Real Estate

Non-Core Real Estate investments offer the opportunity to further enhance returns by investing in assets with greater deficiencies (such as substantial vacancy, the need for substantial renovation, etc.), by accepting different types of risks (such as development risk, redevelopment risk, repositioning, etc.), by focusing more on non-traditional property types that may have greater operating risks (such as hotels), by accepting greater capital market risk (for example, by acquiring assets with complex capital structures that may be difficult to unwind) and by seeking areas of greater market inefficiency.

D. Discretion

- Staff, in a discretionary capacity, will work with the Consultant to implement the Core / Core Plus Real Estate component of the Real Estate Program, including the selection of Managers and portfolio construction, with appropriate updates to the Board; and
- Staff, in a discretionary capacity, will work with the Consultant to implement investments in follow-on funds or other vehicles where the investment is equal to or less than the investment in the predecessor vehicle, with appropriate updates to the Board.

E. Investment Classification

The System recognizes that, although specific categories of investments are delineated in this IPS for purposes of monitoring and controlling risk, the universe of investment opportunities is better characterized by a spectrum of risk and return. To facilitate the efficient classification of investments, any investment with a targeted net return below 10% will be classified by default as Core / Core Plus Real Estate, and any investment with a targeted net return of 10% or greater will be classified by default as Non-Core Real Estate. Internal rates of return will be used for closed-end vehicles, and time-weighted returns will be used for open-end vehicles.

These defaults may be altered for individual investments based on subjective judgments. Each investment will be classified at the time that the commitment is made, and may be reclassified by Staff and the Consultant, with disclosure to the Board, if the profile of the investment changes, or if market conditions change.

Investments classified as "value-add" by industry organizations such as NCREIF may, depending on the circumstances, fall into either the Core / Core Plus Real Estate Portfolio

or the Non-Core Real Estate Portfolio.

F. Allocation Ranges

Core /Core Plus Real Estate:	no less than 40%
Non-Core Real Estate:	no less than 40%

Actual weightings may deviate from these limits while the Real Estate Portfolio is undergoing a repositioning.

G. Annual Real Estate Plan

Investments made under the Real Estate Program shall be made in accordance with the Annual Real Estate Plan contained within the Annual Real Assets Plan. Staff along with the Consultant shall present the Annual Real Assets Plan to the Board each fiscal year or each calendar year for the Board's approval, which will provide guidance to the Staff and Consultant in the management, operations and investments of the Program. The Annual Real Assets Plan shall include an elaboration of a target strategic allocation and tactical within the asset class. An Annual Real Assets Plan approved by the Board may supersede the guidelines and limitations included in this IPS.

H. Pacing

The Annual Real Estate Plan shall recommend commitment ranges to be made by the System within each strategy as well as a total target commitment for the System (the "Pacing Analysis") in order to achieve both the target strategic allocation and the overall allocation to the asset class. The Pacing Analysis shall take into account (i) the System's overall allocation to the asset class and each strategy, (ii) the market environment, (iii) the goal of diversifying by strategy, property-type, geography, vintage, Manager and fund and (iv) other appropriate considerations.

I. Investment Guidelines

1. Investment Types

This IPS authorizes commitments to real estate funds (open-ended and closed-ended), separate accounts, co-investments, joint ventures and direct investments. These investments may be in any type of security throughout the capital structure (including equity, preferred equity and debt).

For purposes of this IPS, "real estate" includes, but is not limited to: (i) private equity real estate investments (including interests owned through joint ventures and commingled funds), (ii) private debt investments secured by first liens (i.e., mortgages or deeds of trust) on real property and other debt investments (e.g., mezzanine and participating debt), and (iii) private interests in real estate owning and/or operating entities (e.g., real estate operating companies- or "REOCs" or limited partnerships). The Portfolio shall consist of private and equity/debt real estate investments made through separate account and direct investment vehicles or commingled fund vehicles.

Investments in real estate investment trusts ("REITs") and other public market investments will be managed outside of the Portfolio. Incidental exposure to REITs and public real estate operating companies (for example take-private transactions or public exits of private investments) will not constitute a violation of this IPS.

2. Co-Investment and Direct Secondaries

Investment rights may include opportunities for additional capital participation through co-investment or other side-by-side direct investment opportunities. Secondary investments include the purchase of LP interests, co-investments or other pooled investment vehicles.

3. Permissible Markets

Managers will be required to comply with the System's policy regarding Permissible Markets (see Attachment D).

J. Responsible Contractor

Managers will be required to comply with the System's policy regarding the retention of responsible contractors (see Attachment C).

K. Economically Targeted Investment Policy

The Real Estate Program will be executed in a manner that complies with any Economically Targeted Investment Policy maintained by the System.

III. RISK MANAGEMENT

Consultant and Staff shall monitor compliance with risk management policies quarterly through the performance measurement process. Real Estate does not lend itself to traditional quantitative measures of risk such as standard deviation and benchmark tracking error. Rather, risk is managed through a combination of quantitative and qualitative constraints. The following sections identify the most significant risks with Real Estate investments and the method of control. The Real Estate Program will only consider investment structures that provide limited liability to the System.

A. Asset Type Diversification

The Real Estate Program will seek diversification by property type and strategy. The Real Estate Program will target weightings to each of the primary property types as follows:

Property Type	Policy Range
Multifamily	Up to 40%
Industrial	Up to 35%
Office	Up to 45%
Retail	Up to 35%
Hotel	Up to 25%
Other	Up to 20%

These bands may be revised over time as the ODCE benchmark weightings shift. Debt

investments may be classified by Staff as falling into one of the traditional property types based on the composition of the underlying collateral.

B. Location Diversification

The Real Estate Program is intended to be diversified globally, with a disproportionate weighting toward the United States due to (i) the absence of currency risk and associated costs, (ii) the absence of withholding taxes, (iii) high transparency, (iv) a well-developed system of property rights and a well-developed legal system and (v) a deep and liquid market. The Real Estate Program will target exposure to investments outside the United States, subject to Attachment D regarding Permissible Markets, no greater than 25% of the total market value.

C. Single Investment Size

The System does not want the failure of a single investment to have a material impact on the performance of the Real Estate Program. In order to mitigate this risk, the maximum commitment to a single investment is limited to no more than 15% of the Portfolio. It is anticipated that this limit will be approached rarely, if ever. This limit will not apply to a separate account.

D. Investment Position

TRS does not want to invest with Managers that have significant enterprise or platform risk unless the System is adequately compensated for that risk. Accordingly, the maximum commitment to a single fund by the five New York City systems is limited to no more than 15% of a single fund-raise determined at the time of initial investment unless either (i) the System receives adequate benefits to offset the associated risk (such as preferred fees and/or enhanced representation as a non-control investor) or (ii) it is determined that the Manager's platform is viable and effective even without the System's commitment.

E. Manager

To avoid having excessive exposure to any individual Manager and/or its affiliated entities, the System will limit a single Manager to managing no more than 15% of the total Real Estate Program allocation.

F. Leverage

Real Estate Program-level leverage will be targeted not to exceed 65% under normal market conditions. In the event that market conditions cause this limit to be exceeded, the pipeline of targeted investments taken as a whole should be designed to bring the Real Estate Program back into compliance in a reasonable timeframe; however, individual investments with varying levels of leverage may still be pursued. The use of leverage by Managers will be monitored by the Staff and the Consultant on a quarterly basis to mitigate risks. In addition to total leverage, Staff and the Consultant will take into consideration factors such as recourse and cross-collateralization, term, interest rate risk, and the potential for covenant breaches and technical defaults.

G. Currency

The Real Estate Program accepts currency risks consistent with the geographic constraints. Currency risk, and the cost of hedging, will be taken into consideration as part of a proposed investment's overall risk/reward profile.

IV. INVESTMENT/EVALUATION CRITERIA

Staff and Consultant will conduct prudent and thorough due diligence upon Real Estate Investment Managers and Investments. Minimum requirements for selection of Investment Managers and Investments shall be:

- The principals must demonstrate relevant experience and expertise in the strategy they propose to execute and the market in which they propose to operate.
- The principals must demonstrate requisite skills and experience necessary to execute the proposed strategy, including evidence from similar prior accomplishments.
- The principals must demonstrate an ability to cooperate and to work well together over the long term and to manage a stable organization.
- The principals must dedicate a sufficient proportion of their time and effort to the proposed investment vehicle.
- The principals must make a meaningful personal financial commitment to the proposed investment.
- The principals must be individuals of high character and solid professional reputation.
- The proposed strategy and business plan must set forth sufficient detail to permit substantive and meaningful review of the investment opportunity, verification of the investment concept and evaluation of the appropriate risk factors.
- The proposed strategy and business plan must provide reasonable assurance that the investment opportunity can produce the target return.
- The risk anticipated in the strategy and market must be justified by and compensated for by the proposed investment, based on reasonable assumptions.

Primary emphasis will be on the quality and experience of the Manager and of its affiliates and staff. Additional factors to be evaluated include:

- Fit within the Annual Real Estate Plan and the System's portfolio.
- Strategy: its uniqueness, the Manager's access to proprietary deal flow, and the flexibility and likelihood of success of the firm's entry and exit strategy (in the case of closed-ended funds).
- Integrity and reputation of the Manager, its employees and other investors.

- Depth and breadth of the Manager's principals and their employees' experience and expertise.
- Personnel turnover.
- Quality of overall governance and management, including controls and reporting systems (including audited financials and reports to investors).
- Relationship with and reputation among existing investors (e.g., re-ups and declines).
- Relationship with existing and former operating partners (if applicable), property management companies (if applicable) and other third parties in the industry.
- Relationship and reputation among banks and other sources of financing.
- Nature and quality of value-added involvement by Managers.
- Demonstrated ability of a Manager's principals and employees.
- Past financial performance.
- Pre-existing commitments of the Manager and its principals and employees.
- Alignment of employee interests with those of Principals.
- Alignment of Managers interests with investors (Manager investment relative to contemplated commitment, waterfall, treatment of transaction fees, clawbacks and lookbacks, operating budget, etc.).
- Appropriateness of terms and conditions.

V. PERFORMANCE OBJECTIVE

The objective of the Real Estate Program is to provide stable long-term net returns that meet or exceed the Real Estate Program Benchmark while assuming suitable risk.

The Real Estate Program Benchmark equals the NCREIF Fund Index – Open-End Diversified Core Equity (“ODCE”) net of fees plus 100 basis points over full market cycles.

Performance over shorter time periods will also be measured to assess progress relative to the benchmark. Because the Real Estate Program is designed to have a higher risk/return profile than the benchmark, these shorter-term, interim measurements will likely deviate from the ODCE plus 100 basis points (both positively and negatively) at different points in the market cycle.

A secondary benchmark may be developed utilizing other indices and methodologies to provide additional context. This includes the use of (i) other private fund indices to evaluate time-weighted returns and to perform attribution analysis, (ii) non-core private

fund indices for vintage year IRR rankings of individual closed-end funds, (iii) public market equivalents, period IRRs and other techniques determined to be appropriate by Staff or the Consultant and (iv) correlations and other similar metrics to assess diversification and inflation hedging benefits.

For convenience, trailing ten-year periods will often be used as a proxy for full market cycles. However, when the result is materially affected by the presence of a market inflection point, more precise measurements (such number of quarters from peak / number quarters from trough) may be employed to determine market cycles.

Attachment B**Infrastructure Program****Infrastructure Investment Policy****I. PURPOSE**

This attachment to the Real Assets Program Investment Policy Statement sets forth investment policy for the Infrastructure Program.

The inclusion of Infrastructure in the System's Total Plan will allow for global investments in facilities or assets which provide core essential services critical to the operation and development of economies. Typically infrastructure investments have high barriers to entry due to significant capital expenditure requirements, exclusive long term contracts or regulatory requirements. Infrastructure investments are comprised of long useful-life assets with high tangible value and relatively low value erosion over time.

The Fund seeks to employ Emerging Managers.⁵ Emerging Managers are asset Managers the Board believes will add significant value to the Fund through implementation of investment strategies consistent with the Board's asset allocation and other policies, but which, because of size, length of track record, or other similar factors, have not been awarded contracts through the Board's manager selection process.⁶ All investments by Emerging Managers shall be subject to fiduciary standards.

II. INVESTMENT OPERATIONS**A. General Approach**

The Staff shall review and manage investments using a disciplined management strategy. Guided by the Annual Infrastructure Plan, Staff shall make assessments as to appropriate strategic weightings within the portfolio. Staff then shall seek to identify the most attractive investment opportunities available consistent with the Annual Infrastructure Plan and with the goal to be diversified prudently across strategies, industries, partnerships and geography.

The Program will seek to invest in opportunities in a variety of infrastructure sectors, including but not limited to, transportation, energy, power, utilities, water, wastewater, communications and social infrastructure. Both Core and Non-Core Infrastructure Investments, as explained more fully below, will be pursued.

Core Infrastructure Investments include the lower risk strategies that acquire assets that operate in an environment of limited competition as a result of natural monopolies, government regulation or concessions, and generate a reliable income stream. Core

⁵ Emerging Managers are sponsors targeting capital raises up to \$750 million and investing through funds I – III. Emerging Managers include Minority & Women-Owned Business Enterprise ("MWBE")

⁶ Per TRS' Core IPS dated June 15, 2006

Infrastructure Investments are expected to provide predictable, long-term, inflation-linked cash flows with minimal volatility. These types of assets are part of core and value-added infrastructure strategies. These investments are in quality assets that benefit from high barriers to entry and inelastic demand for the product or service being provided. These investments are expected to comprise a majority of the infrastructure portfolio, or 60-100%.

Non-Core Infrastructure Investments seek to capture superior risk-adjusted returns caused by market imbalances. These types of investments are part of opportunistic strategies and will have higher risk driven by the following factors: competition, growth, construction, development, technology, and commodity pricing. Correspondingly, these investments will have higher expected returns than the Core Infrastructure Investments. The Infrastructure Program will target a range of 0-40% for these types of investments.

Portfolio construction will be driven by (i) broad allocation ranges to Core and Non-Core Infrastructure Investments and (ii) market opportunities and conditions. Core Infrastructure Investments will represent a majority of the Infrastructure Program. The remaining allocation will be available for Non-Core Infrastructure investment opportunities that emerge over the market cycle. Non-Core Infrastructure opportunities include but are not limited to investing in Greenfield projects.

B. Allocation Ranges

Core Infrastructure Investments:	60 - 100%
Non-Core Infrastructure Investments:	0 - 40%

Actual percentages may differ substantially from these targets during the initial years of the Program.

C. Annual Infrastructure Plan

Investments made under the Program shall be made in accordance with the Annual Infrastructure Plan contained within the Annual Real Assets Plan. Staff along with the Real Asset Consultants shall present the Annual Real Assets Plan to the Board each fiscal year or calendar year for the Board's approval, which will provide guidance to the Staff and Real Asset Consultants in the management, operations and investments of the Program. The Annual Infrastructure Plan shall include an elaboration of a target Core Infrastructure Investment allocation within the Real Asset class.

D. Pacing

The Annual Infrastructure Plan shall recommend commitment ranges to be made by the System within each strategy as well as a total target commitment for the System (the "Pacing Analysis") in order to achieve both the target Infrastructure allocation and the overall allocation to the Real Asset class. The Pacing Analysis shall take into account the System's overall allocation to and investments in the Infrastructure asset class, within each strategy, across investment type and geography, and by vintage as well as the market environment and such other considerations as are appropriate. The Program shall strive to avoid inappropriate concentrations in strategies, investment type, geographic areas, funds, managers or vintage years.

E. Investment Guidelines

This IPS authorizes commitments to infrastructure funds (open-ended and close-ended), separate accounts, co-investments, joint ventures and direct investments. These investments may be in any type of security throughout the capital structure.

F. Permissible Markets

Managers will be required to comply with the System's policy regarding Permissible Markets (see Attachment D).

G. Responsible Contractor

Managers will be required to comply with the System's policy regarding the retention of responsible contractors (see Attachment C).

III. RISK MANAGEMENT

Infrastructure does not lend itself to traditional quantitative measures of risk such as standard deviation and benchmark tracking error. Rather, risk is managed through a combination of quantitative and qualitative constraints. The following sections identify the most significant risks with infrastructure investments and the method of control. The Program will only consider investment structures that provide limited liability to the System(s).

A. Asset Type Diversification

The Infrastructure Program will seek diversification by asset type, revenue drivers, and geography in an effort to mitigate portfolio volatility. The portfolio may include a variety of assets including but not limited to electricity transmission, pipelines, airports, toll roads, communication towers and electric generators, windmills etc. to vary the sources of revenue to the portfolio.

B. Location Diversification

The Infrastructure Program is intended to be diversified globally, subject to Attachment D regarding Permissible Markets.

C. Single Investment Size

The System does not want the failure of a single investment to have a significant or material impact on the performance of the Infrastructure Program. In order to mitigate this risk, the maximum commitment to a single investment is limited to no more than 15% of a single fund-raise. This limit will not apply to a separate account.

D. General Partner

To avoid having excessive exposure to any individual General Partner and/or its affiliated entities, the System will limit a single General Partner to managing no more than 10% of

the total Real Assets Program allocation when fully invested.

E. Leverage

The average leverage of all investments in Infrastructure Program will be no higher than 65%. The Board acknowledges that the utilization of leverage varies widely in infrastructure investments, and typically investments with lower risk utilize higher leverage. The use of leverage by General Partners will be monitored by the Staff and Consultant on a quarterly basis to mitigate risks.

F. Currency

The Infrastructure Program accepts the currency risks consistent with the geographic constraints. Infrastructure partnerships generally do not hedge currency risk and the Infrastructure Program will not generally require currency hedges.

IV. INVESTMENT/EVALUATION CRITERIA

Staff and Consultant will conduct prudent and thorough due diligence upon Infrastructure Investment Managers/Investments. Minimum requirements for selection of Investment Managers/Investments shall be:

- The principals shall demonstrate relevant experience and expertise in the strategy they propose to execute and the market in which they propose to operate.
- The principals shall demonstrate requisite skills and experience necessary to execute the proposed strategy, including evidence from similar prior accomplishments.
- The principals shall demonstrate an ability to cooperate and to work well together over the long term and to manage a stable organization.
- The principals shall dedicate a sufficient proportion of their time and effort to the proposed investment vehicle.
- The principals shall make a meaningful personal financial commitment to the proposed investment.
- The principals shall be individuals of high character and solid professional reputation.
- The proposed strategy and business plan shall be set forth in sufficient detail as to permit substantive and meaningful review of the investment opportunity, verification of the investment concept and evaluation of the appropriate risk factors.
- The proposed strategy and business plan shall provide reasonable assurance that the investment opportunity can produce the target return.
- The risk anticipated in the strategy and market is justified by and compensated for by the proposed investment, based on reasonable assumptions.

Primary emphasis will be on the quality and experience of the general partners, sponsors or managing members (collectively, "General Partner") and the staff of a proposed investment. Additional factors to be evaluated shall include:

- Fit within the Annual Infrastructure Plan and the System's portfolio.
- Strategy: its uniqueness, the General Partner's access to proprietary deal flow, and the flexibility and likelihood of success of the firm's entry and exit strategy (in the case of close-ended funds).
- Integrity and reputation of the General Partner, its employees and other investors.
- Depth and breadth of the General Partner's principals' and its employees' experience and expertise.
- Personnel turnover.
- Quality of overall partnership governance and management of the partnership including controls and reporting systems (including audited financials and reports to Limited Partners).
- Relationship with and reputation among existing investors (e.g., re-ups and declines).
- Relationship with existing portfolio companies, including terminated Managers.
- Relationship and reputation among banks and other sources of financing.
- Nature and quality of value-added involvement by General Partner.
- Demonstrated ability of General Partner and its employees.
- Past financial performance.
- Pre-existing commitments of General Partner.
- Alignment of employee interests with those of Principals.
- Alignment of General Partner interests with investors (General Partner investment relative to contemplated commitment, waterfall, treatment of transaction fees, clawbacks and lookbacks, operating budget, etc.).
- Appropriateness of terms and conditions.

V. PERFORMANCE OBJECTIVE

The objective of the program is to provide stable long-term returns that meet or exceed the Program Benchmark while assuming suitable risk.

The performance benchmark for the Infrastructure Portfolio is to meet or exceed the Consumer Price Index ("CPI") plus 4% net of fees over a rolling 5-year period.

The Infrastructure Portfolio is expected to generate a total return, net of investment management fees, of at least 6.5%.

Attachment C**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM****Real Asset Investment Policy****"Principles of Responsible Contracting"**

TRS has a deep interest in the condition of workers employed by the System and its advisors. The Trustees support fair wages and benefits for all workers and other service providers doing business with the System and its advisors. The System supports many of the ideals espoused by labor unions. The System believes that a diverse, adequately compensated and trained workforce delivers a higher quality product and service.

A "Responsible Contractor" is a contractor or subcontractor who pays workers fair wages and benefits as evidenced by payroll and employee records. "Fair benefits" may include, but are not limited to, employer-supported family health care coverage, pension benefits and apprenticeship training programs. What constitutes "fair wages" and "fair benefits" depends on the wages and benefits paid on comparable infrastructure projects, based upon local market factors, that include the nature of the project, comparable job or trade classifications, and the scope and complexity of services provided.

Throughout the market in which they operate, all advisors and their subcontractors shall observe all local, state, and national laws (including by way of illustration those pertaining to insurance, withholding taxes, minimum wage, occupational health and safety, and the right to organize unions).

Managers when seeking bids for construction, maintenance or other services, shall notify and actively seek bids from qualified contractors certified as M/WBEs by the City's Department of Business Services or otherwise certified as minority/women owned business enterprises by a governmental entity in the local market in which the contractor operates, and shall award contracts only to responsible contractors. Contractors who do not pay fair wages and benefits, or which have a history of non-compliance with federal, state or local laws regulating employment or labor relations, will not be considered responsible contractors.

Attachment D

NEW YORK CITY TEACHERS' RETIREMENT SYSTEM

Real Asset Investment Policy

“Permissible markets”

TRS will only participate in private market investments that are located and/or are organized or principally operating in Permissible Markets. Permissible Markets are defined as countries in which “Gross National Income per Capita,” as reported in the most recent “World Development Indicators” published by the World Bank, is at or above the threshold established by the World Bank for countries to be categorized as “High Income.”

The Board recognizes that in order to comply with the investment restrictions, Staff will negotiate an opt-out right in respect of the restrictions. Therefore, the application of the investment restrictions may affect the Fund's access to certain funds that do not permit its investors to opt out and be excused from making particular fund investments. In addition, the investment restrictions may require that, from time to time, the Fund opt out of certain investments made by the funds to which capital is committed. This may affect the overall performance of the investment in such particular funds, but the Board has determined that investing absent such policies poses a greater investment and reputational risk overall.

Staff, with the assistance of the Consultant, is hereby delegated the authority to evaluate and determine whether individual investments proposed by a fund to which TRS has committed capital violate the investment restrictions. Staff will apply their good faith judgment in cases where the applicability of an investment restriction is unclear in order to comply with the intent of the restriction.

Glossary of Terms:

Annual Infrastructure Plan: The infrastructure component of the Annual Real Assets Plan.

Annual Real Assets Plan: See *Section IV*.

Annual Real Estate Plan: The real estate component of the Annual Real Assets Plan.

Brownfield Investments: Assets that have been previously constructed and that have an operating history.

Closed-ended Fund: A fund with a fixed number of units (shares). All fund capital is usually contributed on the same date and non-withdrawable until the fund's expiration date. Shares may be traded among investors on a secondary basis.

Co-Investments: A minority investment, made directly into an operating company, alongside a general partner or other infrastructure investor(s).

Core Infrastructure Investments: See *Attachment B Section II. A*.

Core Plus Real Estate Investments: See *Attachment A Section II. B*.

Core Real Estate Investments: See *Attachment A Section II. B*.

Board: The Board of Trustees of the Teacher's Retirement System.

Direct Investments: Investments that represent direct ownership interests in assets or companies as opposed to through a fund vehicle.

General Consultant: The consultant retained by the Board to advise on the composition of its entire investment portfolio.

General Partner: The active manager of an investment vehicle.

Greenfield Investments: Assets in development and lacking an operating history.

Infrastructure Program: The infrastructure component of the Real Assets Program.

Joint Ventures: An agreement whereby the parties agree to develop, for a fixed time, a new entity and new assets by contributing equity. All parties exercise control over the enterprise.

Managers: A person or organization that makes investments in portfolios of securities on behalf of TRS, in accordance with the investment objectives and parameters defined by the System.

Non-Core Infrastructure Investments: See *Attachment A Section II. A*.

Non-Core Real Estate Investments: See *Attachment B Section II. C*.

OECD countries: Countries that belong to the Organization for Economic Co-operation and Development.

Open-ended Fund: An investment fund which can issue and redeem shares at any time. Shares in the fund are typically purchased directly from the fund itself.

Opportunistic Investments: Assets that are either 1) core but in development in OECD countries, 2) assets in OECD countries that are only semi-monopolistic or are subject to larger degrees of user-demand and competition, or 3) assets in non-OECD countries and developing markets.

Permissible Market: See *Attachment D*.

Program: The Real Assets Program.

Real Assets: See *Section II*.

Real Asset Consultant: One or more consulting firms retained by the Comptroller's office to assist in the construction and monitoring of the Real Assets Program.

Real Assets Investment Policy Statement: This Investment Policy Statement, or "IPS".

Real Assets Program: The investment program of TRS in Real Assets, or the "Program".

Real Estate Program: The real estate component of the Real Assets Program.

Staff: See *Section IV. B*.

Responsible Contractor: See *Attachment C*.

Value-Added Investments: Assets in the early stages of operation or with potential for add-on development in Core-like assets in OECD countries.

Teachers' Retirement System of the City of New York

Economically Targeted Investment Policy

Proposed: September 1, 2005
Adopted: September 1, 2005
Revised: November 6, 2008

Purpose of Economically Targeted Investments Policy

The purpose of this Policy is to establish the parameters by which the Teachers' Retirement System of the City of New York ("TRS," or the "System") may invest through its Economically Targeted Investments ("ETI") Program (the "Program"). ETIs are investments in a variety of asset classes that generate rates of return commensurate with the overall risk, liquidity, security and structure of comparable non-targeted investments while providing collateral economic benefits (benefits that enhance quality of life and promote economic development and activity) to the targeted areas. ETIs address capital gaps, thereby promoting the quality of life, growth and economic development in the targeted areas. For the purpose of this Policy, targeted areas are defined as the five boroughs of New York City.

This Policy, as of its adoption date, supersedes the Economically Targeted Investment Policy as adopted on September 8, 2004.

Objectives of Economically Targeted Investments

The System has mandated investments in Economically Targeted Investments:

- to achieve competitive returns commensurate with the risk, liquidity and structure of the investment;
- to provide collateral economic benefits for the Targeted Areas;
- to address market inefficiencies in the Targeted Areas, and in particular capital gaps that affect the low-, moderate- and middle-income neighborhoods and populations of the Targeted Areas;
- to promote economic development and attract additional investment in the Targeted Areas;
- to increase the diversification of its assets; and
- to reduce the volatility of the overall portfolio of the System.

The System also expects that commitments to and investments in ETIs will establish, maintain and continually improve the reputation of the System as an investor. The System will make both continuous use of and contributions to the best practices of investors in ETIs, including rigorously applying the standard of valuing the achievement of risk-adjusted, market rates of return above the achievement of any collateral results. TRS will seek investments in which the proposer demonstrates a commitment to standards of good conduct, including compliance with all Federal, State and local laws, including, but not limited to, labor, anti-discrimination, environmental, and health and safety laws, and any of the stated policies of TRS and will seek to avoid investment programs that at the time commitment to the investment or investment program is made by the Trustees, the Trustees reasonably believe would likely (i) embarrass the Investor or (ii) generate public or regulatory scrutiny greater than that which is required by law or regulation to consummate the investment. TRS encourages the submission of proposals for review from proposers that demonstrate a strong commitment to diversity in their firms.

The operation of the Program is subject to the exclusive benefit rule and all other applicable laws, including requirements of prudence and will be operated in accordance with Department of Labor Interpretive Bulletin 94-1, 29 CFR Part 2509.

Asset Allocation

ETIs may cross a variety of asset classes. The System will seek to achieve a target allocation of 2% of assets to ETIs where practical and consistent with the standards in this and other policies. The Trustees acknowledge that in order to achieve the 2 percent target allocation, BAM staff may need to commit as-

sets in excess of the 2 percent with respect to certain forward-rate commitment programs. Actual investments in ETIs shall not exceed 2 percent without Board authorization.

Responsibilities and Delegation

Role of Board of Trustees

The Board shall approve this Policy no less than biennially. In addition, the Board shall:

- Approve a Plan at least annually;
- Oversee performance;
- Approve investments;
- Delegate investment approval authority as appropriate; and
- Approve the retention of consultants and advisors ("Consultants"), outside legal counsel and other external resources as necessary.

Role of the Comptroller's Office Staff

The duties of the Economically Targeted Investment Staff of the Comptroller's Office (the "Staff") include, but are not limited to:

- Implementing and managing the operations of the program consistent with this policy and the direction of the Trustees;
- Developing and proposing a Plan for the Board's consideration, modification and adoption;
- Implementing the Plan as approved by the Trustees;
- Preparing new investment initiatives for the consideration of the Trustees;
- Evaluating and recommending investment programs and opportunities to the Trustees; and
- Monitoring and reporting to the Board on the performance of the program.

The duties of the Comptroller's Office legal staff (the "Legal Staff") are to assist the Staff in implementing the Trustees directives, including, but not limited to:

- Reviewing this Policy and any other policies developed as part of the Program;
- Participating in procurement of Consultants and other necessary experts; and
- Implementing trustee directions regarding the retention of outside legal counsel and other Consultants, performing legal work and providing legal advice in the ordinary course on the development and implementation of the program, managing and working with retained outside counsel, and ensuring statutory and regulatory compliance of investments.

Performance Benchmarking

The performance of each investment shall be measured against an appropriate benchmark, to be identified initially in conjunction with the making of the investment and to be modified from time to time to provide a suitable measurement of performance relative to investments with similar levels of risk, liquidity, security and structure. The collateral economic benefits shall be quantified to the extent possible and measured alongside the anticipated goal of the investment.

Staff shall report regularly to the Board on the performance of ETIs.

Investment Operations

General Approach

The Staff shall review and manage investments guided by the Plan, this policy statement and, in addition, the policy statement governing investments in the asset class to which an investment under consideration belongs. Staff shall seek to identify the most attractive investment opportunities available consistent with the above and with the investment objectives articulated in the Plan. All targeted investments shall be consistent with sound fiduciary standards (i.e. standards of prudence).

The Plan

Staff shall from time to time present to the Board for its approval a Plan which shall provide guidance to the Staff in the management, operations and investments of the Program.

Investment Parameters

Only those ETI investments that comparable favorably in terms of risk, liquidity, security and structure to similar non-ETI investments will be considered. Collateral economic benefits may not be factored when calculating risk or return. Only after an investment is determined to be financially sound may it be considered for the collateral economic benefits potentially offered.

Although the Targeted Areas are the five boroughs of New York City, ETIs may also provide benefits to additional areas outside of New York City.

Prohibited Investments

Investments that provide concessionary rates of return, that place social benefit concerns above the risk-adjusted return to the System or that violate any policy of TRS are not permitted.

Investment Limits

Commitment Size: The System will not consider any investment programs (which may consist of one or more similar investments) which are expected to result in the investment across all of the New York City Retirement Systems (TRS; the New York City Employees' Retirement System; the New York City Police Pension Fund, Subchapter 2; the New York City Fire Department Pension Fund, Subchapter 2; and the Board of Education Retirement System [collectively, the "Systems"]) of less than \$20 million in the aggregate over three years. Neither shall it consider individual investments across the Systems of less than \$10 million unless such investments are made in the context of an investment program which is anticipated to result in the investment by the Systems of \$20 million in the aggregate over three years.

Concentration: ETIs are, by definition, geographically concentrated. In order to mitigate this concentration risk, staff shall use a variety of tools, including but not limited to, guarantees, co-investors, and experienced managers.

Equity Investment Vehicles

The only equity structures that the System will consider will be those which provide limited liability to the System.

Minimum Requirements

The following shall be the minimum requirements for all ETI investments:

- All proposed investments must offer market rates of return on a risk-adjusted basis, with returns comparable to similar (non-ETI) products with similar risks, structures, liquidity and conditions;

- Investments must fill a capital gap or reach a sector of the market that is not efficiently served by the market;
- Investments must provide collateral economic benefits to the Targeted Areas;
- The proposing organization and/or the principals of a firm providing an investment must have three years' verifiable experience in and adequate staff for the type of investment proposed, and must provide a verifiable track record of relevant investment performance which demonstrates an ability to generate risk-adjusted returns with the product being proposed or a product substantially similar to the one being proposed; and
- The proposing organization and/or the principals must have demonstrated an ability to cooperate and to work well together with governmental and non-governmental financial entities as applicable and to manage a stable organization.

Evaluation Criteria

Proposed investments will be evaluated according to the following factors:

- The fit within the Plan and the System's portfolio;
- The clarity of the proposed investment or program and its parameters and goals;
- The extent to which the proposer demonstrates that the proposed investment or program will produce the anticipated risk-adjusted return and collateral benefits;
- The quality, reputation and experience of the investment managers and their ability to implement a proposed program or investment;
- The quality of controls and reporting systems (including audited financials, risk management systems and reports to investors); and
- The appropriateness of terms and conditions.

Investment management

Staff and Consultants shall be responsible for monitoring the performance of investments.

NYC TEACHERS' RETIREMENT SYSTEM
June 2, 2011

Opportunistic Fixed Income: Investment Program Policy Statement

Purpose and Objectives

The Opportunistic Fixed Income Program (the "Program") will invest in sectors and actively-managed strategies of the Fixed Income market, as defined herein, whose sources of return and risk profiles are expected to differ meaningfully from the Fund's Core + 5, Enhanced Yield and U.S. TIPS programs (the Fund's "traditional fixed income strategies") over market cycles. It is anticipated that these sectors and/or strategies will offer higher returns than traditional fixed income strategies, exploit return opportunities that offer diversification to the total Fund, and exhibit volatility (measured by standard deviation of returns) that is meaningfully higher than traditional fixed income and could be similar to global public equity markets. In addition, the correlation of the Program to public equities in normal times is expected to be moderate, although in crisis periods can be quite high.

The Program will invest in sectors and strategies that because of credit rating, illiquidity, concentration, relatively short track record, underlying asset or liability, and/or other unique characteristics, would not typically be included in the Fund's traditional fixed income portfolios. The Program will enable the Fund to take advantage of changing opportunities in fixed income markets, particularly in markets where providers of liquidity may demand commensurate return premiums. As a result, the Program is intended to provide greater flexibility to pursue these investments in an opportunistic and disciplined manner, within a due diligence framework and established risk guidelines of the fixed income and total fund allocations. Although traditional fixed income offers liquidity, lower volatility, and diversification to equities, it also has several drawbacks and limitations, including low potential returns in periods of low and rising interest rates and exposure to negative corporate event risk, among others. Opportunistic fixed income strategies are designed to overcome many of these deficiencies by offering higher potential returns, offering risk premia for specialized knowledge, aligning interests between borrowers and lenders more effectively, and tapping unique manager skills to access markets ignored by traditional managers.

From inception of the Program investments were limited to niche strategies structured as funds. The Program will be expanded to develop core/satellite relationships to better exploit opportunistic strategies. This will be implemented through core separate account as well as satellite relationships funded either as separate accounts or as investments in commingled funds. These investments will provide the opportunity to develop and invest in niche fixed income strategies that may arise in the future.

The operation of the Program is subject to the exclusive benefit rule and all other applicable laws, including requirements of prudence.

Asset Allocation

The Program, first approved by the Board in 2008, has been funded with an initial allocation of approximately 1% of System assets. The allocation of the Program is 0%-5% of the total Fund. It is envisaged that as specific market opportunities evolve or market conditions change, the allocation to the Program will be modified correspondingly.

Responsibilities and Delegation

Role of Board of Trustees

The Board shall:

- approve the Fixed Income Opportunistic Program Investment Policy Statement ("IPS") and any changes to the IPS;
- review the Program at least annually and approve and adopt the Annual Tactical Investment Plan (the "Tactical Plan"), or more often as requested by Staff as opportunities arise;
- approve the retention, and review performance, of strategic consultants and advisors and other external resources, as needed;
- oversee performance and risk and Staff's implementation of the Program;
- approve investments/terminations of investment strategies and managers, and/or delegation of manager retention/termination to Staff and/or consultant as deemed appropriate;

Roles of the Comptroller's Office Staff

The duties of the Comptroller's Office Staff ("Staff") include, but are not limited to:

- reviewing and recommending changes to the IPS, developing and implementing periodic reviews of the Program, which shall occur at least annually, and managing the operations of the Program;
- working with the System's consultants on identifying and evaluating opportunistic sectors and strategies, investment managers, and investment vehicles or structures appropriate for the particular managers and for the Program, and on making selection recommendations to the Board;
- as needed, identifying and evaluating strategic consultants and advisors and other external resources for the Program, and making selection recommendations to the Board;
- overseeing the Fund's portfolio of Program investments, including management of consultants and advisors and other external resources engaged on the System's behalf in connection with the Program with the objective that the Fund obtains the maximum value from those relationships;
- monitoring and reporting on performance and risk metrics as provided by the managers with respect to the overall purpose and objectives of the Program;
- monitoring and reporting on the performance of the consultants;
- working with the System's consultants on ongoing advice on increasing or decreasing the amount invested in the Program;
- performing other work as necessary to implement this IPS, and
- verifying all investments, guidelines, and documents are consistent with this IPS, and noting any exceptions for approval by the Board.

Role of the Consultants

The duties of the Fund's consultants include, but are not limited to:

- providing advice to the Board and Staff with respect to the development and operation of the Program, including advice on industry developments and portfolio construction, with the goal of an overall Program risk/return profile deemed appropriate by the Board, Staff and the consultants, and monitoring capital markets for investment strategies and investment opportunities;
- assisting the Board and Staff in periodic reviews of the IPS and the Program, and making recommendations to the Board concerning the Program strategy, tactics and policy changes;
- working together with Staff to provide the Board with a Tactical Plan for the Program;
- assisting Staff in identifying, evaluating, and recommending investment opportunities and terminations consistent with the IPS and believed to be appropriate for the Program, including conducting due diligence with respect to new investments, as requested;
- assisting Staff with the implementation, negotiation and execution of new investments;
- advising the Board and Staff on how the Program fits into the System's overall asset allocation and risk/return objectives;
- providing ad-hoc advice or knowledge of specific investment managers, sectors, strategies, and investment structures;
- working with Staff on ongoing advice on increasing or decreasing the amount invested in the Program;
- assisting Staff with the ongoing monitoring of committed investments, including reports to the Board on significant manager developments, proposed amendments to fund documentation and investment performance, and periodic and timely review of the risk of the System's investment portfolios, and
- fulfilling such other purposes as the Board, and Staff, may approve.

Role of the Investment Managers

The duties of the investment managers the Fund allocates to include, but are not limited to:

- selecting and trading underlying investments, selecting service providers and trading counterparties, and otherwise fulfilling their roles as investment managers of their respective funds consistent with offering documents, investment guidelines, termsheets, and other legal documentation;
- providing ongoing reporting to the System, Staff, and consultants as applicable, and responding to reasonable ad hoc requests from the Board or Staff relevant to the fund;
- highlighting portfolio risks on a timely and proactive basis, and
- meeting with the Boards, Staff, and consultants as needed to explain the market and portfolio investments, given their high level of discretion.

Benchmarking

The Program is expected to achieve enhanced returns versus traditional fixed income benchmarks over a multi-year cycle. The primary performance objective for the Program is to earn a 10% absolute net return. The Board recognizes that benchmarking this portfolio is difficult given the potentially idiosyncratic nature of the investments, diverse opportunity set, and the lack of a comparable manager universe. Recognizing these limitations, the portfolio's net returns will also be reviewed against a secondary benchmark: the JP Morgan Global High Yield Index plus 3%, net of all fees and expenses, over a full market cycle (typically 5 – 7 years).

For each strategy and investment of the Program, Staff, in consultation with the appropriate consultant, will recommend an appropriate benchmark that reflects the risk profile and return objectives of the strategy and investment. Considerations will include liquidity (or the lack thereof), leverage, default risk, sector concentration, and security concentration.

Investment Operations

A. General Approach

The Program will permit the Board to consider unique fixed income sectors and strategies on a proactive basis subject to a framework of guidelines, due diligence standards, and procedures for monitoring and reporting. The Program's overall objective is to outperform the broad fixed income markets within established risk guidelines through established measures of volatility, illiquidity, concentration and organizational risks.

It is expected that the opportunistic investments included in the Program may have one or more of the following characteristics:

- Illiquidity of individual securities and investment vehicles (e.g., securities are often private placements with no active secondary market, and limited partnership vehicles or commingled fund structures with limited opportunities for withdrawal are commonly used)
- Private market direct loans or private securities
- Low credit quality / higher-than-average default risk
- Investments in non-dollar denominated securities
- Sector concentration (e.g., distressed mortgage and real estate lending)
- Security concentration
- Complex securities that may be difficult to price and evaluate
- Some strategies may involve short selling and/or use of derivatives
- Shorter track records (implicit in opportunistic investing is the willingness to invest with newer strategies and firms)
- Performance-based fees

Most of these characteristics present strategy-, sector-, and security-specific risks, which can be assumed only if the due diligence effort has confirmed the expectation of reasonable levels of excess returns and/or diversification benefits at the Program level, in keeping with the return/risk profile of this IPS.

Potential investments to be considered for the Program may have “cross-over” characteristics with other asset classes. For example, investments in distressed debt securities may lead to a private equity position via a capital restructuring process. It is intended that such assets with “cross-over” characteristics will be considered part of this Program allocation, though Staff may propose a change in classification for Board approval.

Strategies within the Program may be non-diversified, meaning that the managers of such strategies may structure an undiversified portfolio of assets of a certain type, sector, or geographic location based on an assessment of relative value or opportunity for outperformance. To mitigate risk of potentially non-diversified strategies, the maximum initial allocation to each manager within the Program should not exceed 0.5% of the total Fund’s assets at the time of investment. The maximum allocation over the life of the investment will not be greater than 1.0% of the total Fund’s assets, subject to Staff review and subsequent Board approval. Staff will approach the Board if Staff determines that an increase in allocation over 1.0% is necessary. Diversification of the Program will be provided through a bottom-up approach by aggregating and consolidating each manager’s respective termsheet/investment guidelines. In addition, the Program will be diversified in terms of:

1. Economic sectors
2. Geographic location
3. Manager/ General Partner
4. Investment strategies
5. Securities

The Program is not expected to provide a source of liquidity for the Fund, and accordingly, investments may be illiquid.

B. Opportunistic Fixed Income Sectors and Investment Strategies

Sectors and strategies eligible for the Program may include, among other assets:

Sectors:

- Bank loans
- Private mortgage loans
- Real estate debt
- Direct corporate/high-yield loans
- Asset-backed lending/securities, including Asset-backed securities (ABS), Commercial mortgage-backed securities (CMBS), Residential mortgage-backed securities (RMBS), and leases, among others
- Structured notes
- Global bonds, including emerging market debt
- Post-reorganization / restructured equities (stand-alone public equities will be excluded from consideration unless authorized by the Board)

Strategies:

- Distressed debt (including corporate loans, real estate loans, and structured finance)
- Mezzanine financing

C. *Annual Review*

Staff, with assistance of the consultant(s), shall present to the Board an annual review of the Program, including the overall allocation to and investments within the Program and recommended changes to the IPS, as appropriate, and how the System's allocation to opportunistic fixed income fits into the System's overall asset allocation. The report will include an assessment of market conditions and valuation within each subsector of the market.

D. *Investment Implementation*

1. Sectors and Strategies

In the Tactical Plan, Staff, in consultation with the consultant(s), will identify advisability of the current allocation to the Program, as well as potential opportunistic strategies and investments for the Board's consideration. The Tactical Plan will include an assessment of market conditions and valuation within each subsector of the market, an analysis of where capital should be re-deployed in the Program at the sector, strategy and manager levels, and what the target allocation to the Program as a percentage of total Fund assets should be.

2. Manager Selection

Staff and consultants will identify investment managers and/or investments that focus on sectors or strategies identified in the Tactical Plan. Evaluation criteria shall generally include: i) the depth of experience of the firm and its investment team, ii) the firm's investment research process, operational due diligence and risk management capabilities, iii) performance and risks taken to achieve performance, iv) fees, v) the firm's capacity to handle the size of the investment mandate, vi) alignment of interests with the System's vii) capabilities related to Staff training and access to managers and knowledge sharing and viii) other criteria set forth in this IPS under Minimum Requirements, taking into account deviations appropriate to the unique characteristics of particular opportunistic strategies. Staff and consultants shall set and share with the Board the criteria for the selection of each investment manager or redeployment of capital.

Staff may, but is not required to, issue a request for qualifications ("RFQ") or request for proposals ("RFP") to help identify new strategies and investments. It is recognized that the nature of opportunistic investments may not lend themselves to an RFP process.

3. Investment Structure

Investments may be differently structured, depending on the characteristics of particular opportunistic strategies. Permissible structures include (without limitation): separate accounts under management by an investment manager engaged by the Board; commingled structures such as limited partnerships, limited liability companies, common

or collective funds, and similar structures; secondary partnership investments; co-investments, and direct investments.

The following considerations will generally apply with respect to legal structure:

- Strategies involving derivatives (including, but not limited to, futures, options, swaps, and forward agreements), leverage, short selling, shall generally be structured as a limited partnership or limited liability arrangement. In no event shall the System be a direct party or counterparty to any such investment. Furthermore, any such investment must generally be structured so as to limit the Fund's liability to the amount invested.
- All legal structures shall provide for documentation (*e.g.*, an investment management agreement, offering memorandum, or other documentation) of specific, written investment guidelines that outline investment philosophy and approach, representative portfolio characteristics, permissible and restricted procedures, strategies, securities, and an appropriate performance benchmark commensurate with targeted investment return, risk, and illiquidity.
- Evaluation of the suitability of any commingled structure may take into account factors such as: legal structure and domicile of the investment vehicle, arrangements for custody of assets, the laws and regulations of the domicile and countries where investments are made, whether or not the manager or other principals are registered with the SEC or other appropriate regulatory authorities, characteristics of other investors, roles and characteristics of material third parties (*e.g.*, administrators, prime brokers, vendors and counterparties), and fees and expenses resulting from the use of the particular commingled structure.

4. Minimum Requirements

The following shall be the minimum requirements for all investments of the Program:

- Every investment presented to the Board must have an economic and valuation-based rationale for inclusion in the Portfolio;
- Investments, strategies, and managers must be projected to add value to the total Program from a risk and/or return perspective;
- The investment manager or other principals shall demonstrate relevant skill, experience, and expertise in the strategy they propose to execute and the market in which they propose to operate;
- The manager's proposed strategy and business plan shall be set forth in sufficient detail as to permit substantive and meaningful review of the investment opportunity, verification of the investment concept, and evaluation of the appropriate risk factors;
- The Manager's proposed strategy and business plan shall provide reasonable assurance that the investment opportunity can produce the target risk and return profile;
- The risk anticipated in the strategy and market is justified by and compensated for by the potential gains of the proposed investment, based on reasonable assumptions;

- The investment manager's registration as an investment adviser with the SEC or applicable local regulatory body (e.g. the Financial Services Authority in the UK) is strongly preferred;
- The investment manager or other principals shall provide financial statements that comply with geographically appropriate accounting standards (e.g., U.S. GAAP, International Financial Reporting Standards) and any other financial reports and other information required by Staff to assess and account for performance, fees, expenses, invested capital, and any other items affecting the investment. Monthly and quarterly investment updates are expected from investment managers or other principals with respect to each investment. Financial statements provided for commingled structures, such as limited partnerships and LLCs, must be audited by a reputable auditing firm;
- There must be reasonable controls over the valuation of the investment, which may include annual audit, a valuation committee, use of third party administrators or other third parties to value assets, or other procedures and controls. Staff shall assess the valuation methodology for the investment in light of the investment's liquidity profile and receive reports of, or have the right to request, supporting information regarding the valuation of assets within the investment, and
- All investments must have reasonable and well-defined policies for exit. If exit is limited (e.g., in the case of limited partnerships), there must be a mechanism and timetable for exit. Liquidity should be appropriate given the underlying assets of the portfolio.

5. *Investment Guidelines and Prohibited Investments*

- *Investment Sizing* – The maximum allocation to an individual manager will be reviewed with the Board and monitored by Staff as appropriate;
- *Authorized Use of Derivatives* – One or more strategies may provide for the use of derivatives to assist in the efficient management of risk, asset allocation and market exposures, through the use of tools such as futures, options, swap agreements, or forward agreements. Derivatives used for the purpose of speculation shall be limited. Currency strategies using derivatives other than for hedging purposes are not permitted. The implementation of the derivatives strategies shall be thoroughly vetted by Staff and the consultants. Investments involving derivatives (including but not limited to futures, options, swaps, and forward agreements, other than for currency hedging) generally shall be structured as a limited partnership or limited liability arrangement. In no event shall the System be a direct party or counterparty to any such investment;
- *Use of Leverage* – Leverage may be used in the implementation of specific strategies within the Program. In such instances, Staff and the consultants will consider the role that leverage plays in achieving the goals of the strategy and the risks that are associated with the use of leverage. There will be no leverage applied at the Program level. Managers will be allowed a maximum of 1X leverage for senior loans, defined as capital provided to a borrower or firm that is senior to equity and other lenders. Other types of financial leverage will not be permitted. Economic leverage will exist through the use of derivatives where a

margin of deposit is required before trades can be executed. Please see Exhibit A below for a glossary of economic and financial leverage;

- *Proxies* - Generally, investment managers will vote proxies in accordance with the managers' policies for the strategy. However, in the event the System enters into a separate account relationship and if appropriate to the strategy, securities held in a separate account may be voted by the Comptroller's Office in accordance with the Fund's proxy voting policy;
- *Prohibited Investments* – Certain of the Board's investment policies prohibit certain investments, including investments that are likely to cause job losses in the public sector or those that are likely to pose reputational risk to the System. In the course of the due diligence process, and where appropriate to the strategy or investment, Staff will apprise potential managers of the types of prohibited investments and will require agreements to provide opt-out rights and/or satisfactory side letter language with respect to any investment that is prohibited;
- *Conflicts of Interest* - Investments shall be reviewed by Staff and the consultants for potential conflicts of interest. Managers must either agree to comply with the Ethics and Compliance Policy of the Fund or have documented policies and procedures to address conflicts that are deemed satisfactory by Staff and the consultants. Managers shall be required to agree in a side letter or similar document to implement such policies and procedures;
- *Transparency* - Staff and the consultants will evaluate the transparency available for each investment opportunity considered for the Program, establish manager reporting requirements and provide the reporting requirements to the manager. For this purpose, transparency may mean holdings-level detail, reporting of investment transactions and cash flows, or other relevant measures, and
- *Custody* – Staff and the consultants will evaluate arrangements for the custody of assets, including whether custody should be maintained with an independent, recognized institutional custodian bank or other recognized financial institution. Unless otherwise approved by the Board, the custodian will provide a report of all assets and transactions to Staff and the consultants on a quarterly basis (monthly where available). Staff and the consultants will review the reports to ensure compliance with guidelines and the stated investment process.

6. *Due Diligence Process*

- Staff with the assistance of the consultant(s) will vet each opportunity presented to the Board;
- Financial and investment data should be collected not only from the manager of the prospective investment or from databases or commercial services that rely upon managers for their data, but also directly from sources independent of the manager, such as third-party custodians, independent auditors, and entities in which or with which the manager invests;
- Staff and/or consultants, where appropriate, will perform on-site due diligence for investment managers being considered by the Board;
- Staff and/or consultants will provide written analysis and a recommendation for each investment that include a ranking process for the following categories:
 - i. Organizational structure and stability

- ii. Qualifications and experience of people
- iii. Investment philosophy
- iv. Investment strategy and process
- v. Risk management and measurement
- vi. Operations and infrastructure
- vii. Role of the Investment in the Program
- viii. Fit with IPS, Tactical Plan and existing Program
- ix. Fees and expenses
- x. Key investment or contractual terms
- xi. Satisfaction of minimum requirements

The report will include comparable opportunities and a rationale for the recommendation. The report will also address issues, if any, resulting from due diligence review of matters addressed by the Additional Guidelines and Prohibited Investments above. A detailed analysis on the benchmark chosen and a rationale for its appropriateness will be included, and

- Staff will make investments and commitments consistent with limitations on the Program.

7. Monitoring and Reporting

- All investments and managers in the Program will be monitored and reviewed on an ongoing basis by Staff and consultants. Investments will have stated dates for review, at least quarterly with a monthly performance snapshot, and re-evaluation, as appropriately stated in the original written recommendation presented to the Board;
- Staff and consultants will design and provide the Board with a report package for the Program based on characteristics of each strategy and investment within the Program at least annually;
- A performance review will be conducted at least quarterly. There is recognition that some opportunities will have a reporting lag. This lag should not be more than 3 months;
- The quarterly performance review should incorporate return, risk, and market value for each investment and be segmented by an appropriate classification;
- The quarterly performance review will include an assessment of the valuations and whether valuations have been conducted in accordance with the valuation methodology;
- Staff and/or the consultants should conduct regular monitoring and at least an annual meeting with each investment manager;
- Staff will present an annual performance review to the Board that shall report on the Fund's overall allocation to, and investments within, the Program, and will review the underlying economic and credit-market conditions. The annual report will include relevant risk and return measures including short and long term performance, program diversification exposures and overlap. The metrics used will be analyzed over quarterly, 1, 3, 5 and 10 years, calendar years and over rolling 3 year periods – as the program develops, and in consideration that securities may be held at cost until realization of returns;

- The annual review will also include rationale for maintaining, adding or reducing assets to the Program;
- The following factors may be considered during the monitoring process, among others as appropriate:
 - i. Risk exposures, performance, and volatility in comparison to the assigned benchmark;
 - ii. Changes in market opportunities;
 - iii. Liquidity;
 - iv. Fees and expenses incurred in connection with the investment;
 - v. Stability or changes in organization, ownership, key personnel, investment philosophy, strategy, process or assets under management;
 - vi. Risk management;
 - vii. On-going fit with the IPS and the Program;
 - viii. Legal or regulatory issues including pending actions or investigations brought by regulators or third parties;
 - ix. Good standing with regulatory bodies and other investors;
 - x. Adherence to stated investment objectives and strategies (i.e. style drift);
 - xi. Transparency with respect to fees and conflicts of interest;
 - xii. Adequacy of reporting information and disclosures, and
 - xiii. Responsiveness to investor inquiries.
- Staff shall place investments on the watch list in accordance with the System's standard investment policy procedures.

Exhibit A: Glossary (Source: EDHEC-Risk Institute, URL http://www.edhec-risk.com/latest_news/featured_analysis/RISKArticle.2008-10-10.2612?newsletter=yes)

- 1. Economic Leverage:** For the purposes of this memorandum, “economic leverage” indicates the leverage due to off-balance sheet items such as derivatives, which are typically unfunded products. The protection buyer’s periodic premium on the derivative is for a notional exposure far greater than the premium paid. Hence the buyer is leveraged from an economic perspective.
- 2. Financial Leverage:** For the purposes of this memorandum, “financial leverage” relates only to the visible leverage. This is the leverage which shows on the balance sheet as borrowed money. The assets are greater than the equity capital base of the company due to these borrowed money liabilities. Hence the borrower is leveraged from a financial perspective.

IV. Discussion of Compliance Issue:

APPENDICES:

Basket Clause

TRS - BASKET/NON BASKET SUMMARY

As of July 31st, 2013

<u>Equity</u>	Adjusted Fund Policy			Fund Actual (PE & RE on an invested basis)		
	Non Basket*	Basket*	Total	Non Basket*	Basket*	Total
Domestic Equity	35.1%	0.0%	35.1%	42.4%	0.0%	42.4%
Non-U.S. Equity	10.0%	7.8%	17.8%	10.0%	7.5%	17.5%
Private Equity	0.0%	4.5%	4.5%	0.0%	4.5%	4.5%
Real Estate	2.1%	0.0%	2.1%	2.1%	0.0%	2.1%
REITS	2.8%	0.2%	3.0%	3.3%	0.2%	3.5%
Total Equity	50.0%	12.5%	62.5%	57.7%	12.2%	69.9%
<u>Fixed Income</u>						
Core+5	19.5%	0.5%	20.0%	14.7%	0.5%	15.2%
<i>U.S. Gov't Sector</i>	3.8%	0.0%	3.8%	2.1%	0.0%	2.1%
<i>Mortgage Sector</i>	7.9%	0.0%	7.9%	6.7%	0.0%	6.7%
<i>Credit Sector</i>	7.8%	0.5%	8.3%	5.7%	0.5%	6.2%
High Yield	7.4%	0.8%	8.2%	4.7%	0.5%	5.2%
Bank Loans	0.0%	0.0%	0.0%	0.0%	2.4%	2.4%
TIPS	3.6%	0.4%	4.0%	2.4%	0.3%	2.7%
Convertibles	2.4%	0.6%	3.0%	1.3%	0.3%	1.6%
Opportunistic Fixed Income	0.0%	1.6%	1.6%	0.0%	1.6%	1.6%
Other Fixed Income	0.7%	0.0%	0.7%	1.5%	0.0%	1.5%
Total Fixed Income	33.6%	3.9%	37.5%	24.5%	5.6%	30.1%
Total Fund	83.6%	16.4%	100.0%	82.2%	17.8%	100.0%

Remaining Capacity

8.6%

7.2%

* Note: Basket amounts are estimates

Liquidity Analysis

TRS Liquidity Profile - Static Analysis

9/3/13

AUM as of July 31, 2013

	Current MV	Liquid Assets		
		Today	1 Year	2 Years
Domestic Equity	\$21,651	\$21,651	\$21,651	\$21,651
International Equity	4,781	4,781	4,781	4,781
Emerging Markets	4,160	4,160	4,160	4,160
REITS	1,766	1,766	1,766	1,766
Private Equity	2,315	0	0	0
Private Real Estate	1,073	0	0	0
Core + 5	7,755	7,755	7,755	7,755
TIPS	1,366	1,366	1,366	1,366
Opportunistic Fixed Income	806	605	806	806
Enhanced Yield	2,641	2,641	2,641	2,641
Bank Loans	1,218	1,218	1,218	1,218
Convertible Bonds	812	812	812	812
ETI	379	50	263	263
Cash	392	392	392	392
Total Assets	\$51,114	\$47,195	\$47,610	\$47,610
Total Illiquid \$		\$3,919	\$3,504	\$3,504
Total Illiquid %		7.7%	6.9%	6.9%
Unfunded PE Commitments	\$2,216			
Unfunded RE Commitments	\$644			
Unfunded OFI Commitments	\$772			
Total commitments \$	\$3,631			
Total commitments %	7.1%			

TRS Liquidity Profile - Static Analysis

9/3/13

AUM as of July 31, 2013

Denominator Effect - Decrease AUM by One-Third

Total Illiquid \$	\$3,919	\$3,504	\$3,504
Total Illiquid %	11.5%	10.3%	10.3%

Note: Assumes zero realizations, no new commitments and a five-year investment period; funded out of liquids

	Current MV	Liquid Assets		
		Today	1 Year	2 Years
Total Assets	\$51,114	\$47,195	\$47,610	\$47,610

Private Equity, Real Estate and Opportunistic Fixed Income Stress Case

Unfunded PE Commitments Drawn	\$443	\$886
Unfunded RE Commitments Drawn	129	257
Unfunded OFI Commitments Drawn	386	0
Total commitments \$	\$958	\$1,144
Total commitments %	1.9%	2.2%

Total Illiquid \$	\$4,462	\$4,648
Total Illiquid %	8.7%	9.1%

Note: Assumes zero realizations, no new commitments and a five-year investment period; funded out of liquids

Denominator Effect - Decrease AUM by One-Third

Total Illiquid \$	\$3,919	\$4,462	\$4,648
Total Illiquid %	11.5%	13.1%	13.6%

Note: Assumes zero realizations, no new commitments and a five-year investment period; funded out of liquids