INVESTMENT POLICY STATEMENT

MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Effective May 1, 2012

I. Introduction

This Investment Policy Statement (Policy) provides the framework for the management of the investments of the Michigan Public School Employees' Retirement System (MPSERS). Pursuant to State law, the State Treasurer is the custodian of the MPSERS. In addition to MPSERS, the State Treasurer also acts as custodian for the retirement systems for the Michigan State Employees' Retirement System, the Michigan State Police Retirement System, and the Michigan Judges' Retirement System. Collectively, these four systems comprise the State of Michigan Retirement System (SMRS).

The investment policies and objectives of the MPSERS are intended to allow for sufficient flexibility in the management process to capture investment opportunities, yet provide parameters that will ensure prudence and care in the execution of the investment program. The State Treasurer, as sole fiduciary, in investing MPSERS's assets shall act with the same care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a similar capacity and familiar with these matters would use in the conduct of an enterprise with similar aims, in accordance with the Public Employee Retirement System Investment Act, Act 314 of 1965, as amended (P.A. 314).

Definition of Terms

- A. <u>Allocated Cash</u> Funds allocated to the investment managers. These funds are generated by income (interest, dividends) and monies earned as a result of the sale of a security.
- B. <u>Authorized Representatives</u> List, authorized by the State Treasurer, of Bureau of Investments (BOI) personnel who have authority to execute transactions on behalf of the SMRS.
- C. <u>Cost</u> Book value or purchase price of the security.
- D. <u>Market</u> Current price of the security if sold on the open market as of a given date.
- E. <u>Strategic Asset Allocation</u> The long-range asset allocation of the plan designed to reasonably achieve the approved actuarial rate of return.
- F. <u>Target Allocation</u> The percentage of MPSERS's portfolio (valued at market) to be allocated to the specific asset classes as outlined under Section IV.

G. <u>Unallocated Cash</u> – Funds generated by MPSERS from contributions, less administrative expenses and benefit payments, invested in cash equivalents (but not managed by investment managers).

II. Assignment of Responsibilities

- A. The State Treasurer is the sole fiduciary and custodian of MPSERS's investments pursuant to state law. The State Treasurer, with input and analysis from the BOI, Investment Advisory Committee (IAC) members, internal and external investment managers, consultants, and other service providers, as needed, shall provide the following:
 - 1. Have asset liability studies conducted approximately every two years for each fund and distribute such studies to IAC members.
 - 2. Establish, approximately every two years, a long-term fund target asset allocation, based on the analysis and advice of the BOI.
 - 3. Establish, through this Investment Policy Statement, delegation of authority, and investment responsibility.
- B. The State Treasurer delegates investment approval authority of publicly traded equities and fixed income securities to the BOI and external managers. Absolute return, real return, and opportunistic investments made under the Short Term Fixed Income, Absolute and Real Return Division (STARR) are delegated to the Chief Investment Officer (CIO) or its external investment managers where applicable. Initial investment approval of real estate, private equity, venture capital, and private infrastructure investment funds made under the Real Estate and Infrastructure Investments Division (REID) or the Alternative Investments Division (AID) requires approval from either the State Treasurer or, if the State Treasurer position is vacant, the CIO shall approve.
- C. The State Treasurer shall report investment returns and strategy quarterly to the IAC, which reviews the investments, goals, and objectives of the retirement funds and may submit recommendations regarding them to the State Treasurer. The IAC may also, by a majority vote, direct the State Treasurer to dispose of any holding which in its judgment, is not suitable for the fund involved, and may by a unanimous vote direct the State Treasurer to make specific investments.
- D. The Director of the Bureau of Investments serves as the Chief Investment Officer of the MPSERS. The Director will implement the goals as described in Section II, A (1, 2, 3) of this document as well as direct the investment operations of the MPSERS, including each major asset class, in compliance with statutory requirements and sound business practices.

III. General Objectives and Policies

The general objectives define the goals to be achieved through the management of MPSERS's assets. General policies provide guidelines for the State Treasurer, as sole fiduciary, to follow in meeting the general objectives.

- A. General Objectives:
 - 1. The overall objective of the MPSERS is to provide retirement, survivor, and disability benefits to its members through the investment of contributions and other MPSERS's assets.
 - 2. The primary investment objective is to earn the approved actuarial rate of return on the total investment portfolio, consistent with a high degree of prudence and sufficient diversity to reduce risk and to meet the actuarial assumption for the investment rate of return, at a reasonable cost, achieved by cultivating a motivated team of dedicated professionals. It is understood that to meet the return objective of the fund equity risk must be assumed.
 - 3. The State Treasurer will seek to diversify the plan with prudent levels of equity diversification through the investment of MPSERS's assets.
- B. General Policies:
 - 1. All transactions undertaken on behalf of MPSERS shall be for the sole benefit of plan participants.
 - 2. All BOI staff and investment managers (including the State Treasurer, staff, and external service providers) involved in the investment process shall act with the care, skill, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims, in accordance with P.A. 314, or as otherwise stated in the investment policy, or their contract.
 - 3. All BOI staff and investment managers (including the State Treasurer, staff, and external service providers) involved in the investment process shall refrain from personal business activity that could conflict with the proper execution and management of the investment program, or that could impair their ability to make impartial decisions. These parties are required to reveal all relationships that could create or appear to create a conflict of interest in their unbiased involvement in the investment process.
 - 4. Investments shall be made without distinction between return generated from income as opposed to capital gains, and that diversification, need for liquidity, and the potential for gain and loss will be monitored on an on-going basis.

- 5. The allocation of assets among various asset classes shall be approved (as set forth here-in) by the State Treasurer. The asset allocation policy shall be predicated on the following factors:
 - a. the historical performance and risk measurers of capital markets adjusted for the expectations of the future short and long-term capital market performance;
 - b. the correlation of returns and risk among the relevant asset classes;
 - c. the expectations of future economic conditions, including inflation and interest rate assumptions;
 - d. the projected liability stream of benefits and the costs of funding to both covered employees and employers; and
 - e. the relationship between the current and projected assets of the plan and the projected actuarial liability stream.
- 6. This asset allocation policy will identify target allocations to the classes of assets MPSERS can utilize and the ranges within which each can fluctuate as a percent of the total portfolio. This policy is expected to provide diversification of assets in an effort to maximize the investment return to MPSERS consistent with prudent market and economic risk given the return objectives of the fund. Assets of MPSERS are to remain invested at all times in either cash equivalents or other asset classes as designated by this Policy.
- Pursuant to State law, professional investment management firms, which are 7. registered investment advisors or which are appropriately exempt from registration under the Investment Advisers Act of 1940 as may be amended, may be retained, by the State Treasurer, to assist in managing MPSERS's assets. Investments shall be sufficiently diversified so as to reduce the risk of Each investment manager will function under a formal material losses. contract that delineates its responsibilities and appropriate performance expectations. A formal set of investment guidelines and administrative requirements for management of each portfolio is to be provided to each manager. The BOI staff will review the investment performance of these managers against their stated objectives on a regular basis. Individual managers will be judged according to benchmarks, which reflect the objectives and characteristics of the strategic roles their portfolios are to fulfill. Other factors for consideration shall include, but not be limited to, fundamental changes in the manager's philosophy, changes in the manager's organizational structure, financial condition (including changes in total assets under management), personnel, changes in fee structure, or litigation brought against the manager. Investment managers may act at their own discretion provided their actions are in accordance with P.A. 314, this Policy, and their contract.

- 8. The State Treasurer will allocate MPSERS's contributions on an on-going basis in accordance with this Policy to balance the overall asset allocation against targets when deviations occur because of capital market fluctuations. Such allocations can be made even if contributions to managers or asset classes which have recently experienced poor performance, if staff believe the future outlook is favorable. If such poor performance is the result of an occurrence other than expected market-related volatility, then a reassessment of that investment shall be undertaken.
- 9. The State Treasurer may utilize the services of an investment consultant(s) for the purpose of performance review, asset allocation studies, risk budgeting, manager screening and selection, educational materials, and topical studies. The comments and recommendations of the consultant will be considered by the State Treasurer, as sole fiduciary, in conjunction with other available information for the purpose of making an informed and prudent decision.
- 10. The State Treasurer will utilize the services of a master custodian bank that will be responsible for holding MPSERS's assets, settling purchases and sales of securities; identifying and collecting income that becomes due and payable on assets held; and providing a management information/accounting system.
- 11. The State Treasurer may retain the services of a securities lending provider to generate additional return for MPSERS at acceptable levels of risk. The program will be administered in accordance with the securities lending policy negotiated with the provider.
- 12. The MPSERS considers the active voting of proxies an integral part of the investment process. Proxy voting will occur in accordance with the Proxy Voting Policy.
- 13. Updated return projections and asset allocation will be developed approximately every two years. The information for these reviews shall come from staff, outside consultants, and investment managers, as they may be retained.
- 14. It is the responsibility of the State Treasurer to administer the investments of MPSERS at reasonable industry standard cost, being careful to avoid sacrificing quality and opportunity for gain. These costs include, but are not limited to, management and custodial fees, consulting fees, transaction costs, and other administrative costs chargeable to MPSERS, as well as incentive fees.
- 15. Any investment or any action pursuant to an investment for MPSERS which is not expressly permitted under this Policy is not allowed unless submitted in writing, and formally reviewed and approved by the State Treasurer.
- 16. The State Treasurer will operate the pension investment program in compliance with all applicable state, federal, and local laws and regulations

concerning the investment of pension assets (USC Section 401 (a) (8), (9), (16), and (25) of the Internal Revenue Code; and under P.A. 314 and the Divestment From Terror Act, Act 234 of 2008, as amended (P.A. 234).

IV. Asset Allocation Policy and Objectives

Based on the factors identified in the preceding General Objectives and Policies, the State Treasurer has established strategic asset allocation targets and ranges on a market value basis as set forth below.

Ranges for each asset class are included in the asset allocation policy to provide the State Treasurer, as sole fiduciary, with flexibility to adjust to market fluctuations and portfolio changes.

Asset Class	Benchmark	<u>Target</u>	Ranges	<u>Statutory Limit*</u>
Absolute Return	T-bills +4%	4%	0% - 12%	20% (w/RRS)
Core Fixed Income	Barclays Govt./ Credit	15%	10% - 25%	
Cash / Short Term Fixed Income	U.S. 1 month T-bill	4%	1% - 9%	
Domestic Equity	S&P 1500	31%	20% - 50%	70%
Infrastructure	U.S. CPI +4% lagged 1 quarter	3%	0% - 5%	
International Equity	MSCI ACWI ex U.S.	16%	10% - 20%	20%
Private Equity	S&P 500 +3% lagged 1 quarter	16%	10% - 25%	30%
Real Estate	NPI – 1.3%	6%	5% - 15%	
Real Return / Opportunistic	U.S. CPI +5%	5%	0% - 10%	20% (w/ARS)
Total Assets	Actuarial Assumption	100%		

A. The five-year strategic asset allocation targets are provided below:

*Additional statutory limitations may apply pursuant to P.A. 314.

- (1) Investments in foreign securities shall not exceed 20%, pursuant to the statutory limitation of the P.A. 314, section 38.1140k.
- (2) Absolute Return and Real Return/Opportunistic combined shall not exceed 20%, pursuant to the statutory limitation of P.A. 314, section 38.1140d.
- (3) Private Equity shall not exceed 30%, pursuant to the statutory limitation of P.A. 314, section 38.1139a.

- (4) Investments in derivative securities shall not exceed 15%, pursuant to the statutory limitation of P.A. 314, section 38.1140j.
- (5) Statutory limits may change from time to time as P.A. 314 is amended periodically.

ASSETS CLASSES ARE DEFINED AS:

Absolute Return – Investments representing ownership interest in hedge funds managed to an overall risk tolerance. Diversification by fund and by strategy, such as, but not limited to, long/short equities, arbitrage, and event-driven strategies is important as is prudent leverage levels on a total portfolio. Absolute Return strategies seek to produce return patterns over time that have a lower level of correlation with equities and other traditional asset classes.

Cash/Short Term Fixed Income – Investments in fixed income securities with maturities of less than one year including, but not limited to, Treasury bills and notes, commercial paper, bankers acceptances, certificates of deposit, asset backed securities.

Equities – Investments representing ownership interest to include public, preferred stock, convertible to stock, options, futures, or other derivatives on stocks or composites of stocks, units, participation or partnership shares which represent ownership interests in an underlying investment (excluding real property). Investment in REITs shall be classified as equities unless managed by the REID, which they will then be considered as real estate.

Fixed Income – Investments representing instruments with maturities greater than one year with obligated fixed or floating rates of interest to include public and private securities, mortgages, and investments in life insurance general accounts and guaranteed investment contracts, and options, futures or other derivatives on fixed income securities or fixed income components.

Infrastructure – Investments representing ownership interest in partnerships, publicly traded securities, operating companies, or other investment vehicles that represent equity and/or debt in infrastructure and real asset sectors including, but not limited to, energy resources and utilities, transportation assets, water and waste, communications, social infrastructure, or other infrastructure and real asset related investments.

Real Estate – Investments representing ownership interest in partnerships, publiclytraded securities, operating companies, or other vehicles that represent equity and/or mortgages in real estate including, but not limited to, commercial, retail, hotel, industrial, residential, land, or other real estate related investments.

Real Return/Opportunistic – Investments representing ownership interest in either individual real return asset classes that provide an inflationary protection or portfolios that are managed strategically or tactically utilizing real return asset classes in isolation or in combination with traditional asset classes to achieve this goal. Real Return

investments may include investments across asset classes. Opportunistic strategies may include tactical or strategic investments across asset classes.

Private Equity – Investments representing ownership interest in partnerships and other vehicles including, but not limited to, venture capital, leveraged buyouts, mezzanine debt, and special situations. In addition, this asset class may include public stock as a result of distributions.

THE STRATEGIC ROLE OF EACH ASSET CLASS & SUBCLASS AS DEFINED:

Domestic Equity (may include, but are not limited to the following)

Diversified portfolio of company stocks incorporated inside of the U.S. denominated in U.S. currency.

Index/Passive – Attempts to replicate performance and characteristics of the applicable index and may be implemented through direct stock holdings, mutual funds, commingled funds or the use of swaps or other derivative instruments.

Active Management – Attempts to add value over the benchmark through stock selection, sector rotation, macro economic themes, etc., which may include swaps, options, or other derivatives.

Long-Short (130/30) – Diversified portfolio of stocks utilizing both long and short positions. The strategy has a limited amount allowable to sell short (usually 20% to 40%). The proceeds of the short sales are used to buy more long positions, so that net market exposure is equal to 100%, though the portfolio return is expected to exceed that of the S&P 500 Index.

International Equity

Diversified portfolio of company stocks incorporated outside of the U.S. that may be denominated in non-U.S. currency. International equity is expected to provide diversification to the fund's U.S. equity investments.

Index/Passive – Attempts to replicate performance and characteristics of the applicable index and may be implemented through direct stock holdings, mutual funds, commingled funds or the use of swaps, options, or other derivative instruments.

Active Management – Attempts to add value over the benchmark through country allocation, stock selection, sector rotation, global macroeconomic themes, etc.

Private Equity

Diversified portfolio of partnerships in venture capital, leveraged buyouts, mezzanine debt, and special situations. The portfolio will consist of domestic and international partnerships, as well as private and public securities which may be the result of

distributions. Private equity investments shall be well diversified by sub-asset class (e.g. venture capital vs. buyouts), investment style (e.g. early vs. late stage, mid market vs. large cap market), and vintage year.

Absolute Return

Diversified portfolio of hedge funds consisting of multiple funds and strategies, managed to an overall risk level and including acceptable leverage levels. Absolute return portfolios seek to produce return patterns over time that have a low level of correlation with equities and other traditional asset classes. The investments will be made through industry standard partnerships (or other applicable legal entities).

Real Return/Opportunistic

Real Return/Opportunistic can include such diverse individual strategies as commodities, timber, floating rate notes, or a portfolio including a variety of asset classes managed tactically or strategically to achieve a real return goal. They are included in the portfolio to provide an inflation hedge or opportunistic tactical or strategic asset class exposure. Examples of additional individual strategies include, but are not limited to, TIPS, floating rate debt, and commodity futures. The investments may be direct or made through partnerships, or other legal entities, as standard industry practice.

Real Estate

Diversified portfolio of equity or debt investment in real estate including, but not limited to, commercial, retail, hotel, industrial, residential, or land. Real estate investments may include investments in public or private real estate operating companies and non-traditional property types or other real estate related investments. The real estate portfolio is expected to provide diversification from traditional capital market risk. The real estate portfolio shall be diversified by property type and geography, and may include the use of leverage. The investments are typically made through partnerships or other legal entities.

Infrastructure

Diversified global portfolio of infrastructure investments that possess quasi-monopolistic qualities and provide attractive income attributes or capital appreciation. Infrastructure is included in the portfolio to enhance diversification. Infrastructure investments shall be well diversified by sub-asset class, investment style, geography, vintage year, investment manager, and fund. These investments will be made through partnerships or other legal entities as standard industry practice.

Fixed Income

Diversified portfolios of fixed income securities designed to primarily protect principal and generate cash flow. Internally managed portfolios shall consist of bonds that are either investment grade or meet the requirements of Section 17 of P.A. 314.

Externally managed bond portfolios seek to outperform the bond indices through traditional fixed income management tools such as yield curve management, non-core sector exposure, duration management, and other techniques. The overall total portfolio quality of these portfolios should be maintained above investment grade.

Cash/Short-Term Fixed Income

Portfolio of short-term fixed income securities with an average maturity of less than one year. Its purpose is to provide liquidity and safety of principal from capital market and default risk.

V. Performance Objectives

The investment performance of the fund will be measured against objectives for the total MPSERS and against objectives for individual portfolio components (asset classes and individual managers). Investment performance shall be measured no less than quarterly. Because capital markets fluctuate, and given the length of the duration of the liability stream, the performance relative to objectives is to be judged over a period of a market cycle as well as standard annualized periods of one, three, five, seven, and ten years. Greater emphasis is placed on intermediate and long-term results.

- A. Performance Objectives for the MPSERS:
 - 1. Achieve the actuarial rate of return within prudent levels of risk, while maintaining sufficient liquidity to pay benefits.
 - 2. Diversify assets.
 - 3. Meet or exceed actuarial assumption over the long term.
 - 4. Perform in the top half of the public plan universe over the long term.
 - 5. Exceed individual asset class benchmarks over the long term.
 - 6. Exceed the median peer within the appropriate manager or asset class universe ranking over the long term.
- B. Performance Objectives for Individual Components

It should be noted that peer universes may only be available for these comparisons on a gross-of-fees basis. This should be considered when evaluating the MPSERS's return streams which are stated net of fees. In addition, benchmark and peer data may change from time to time as the market/industry evolves.

1. Domestic Equities Exceed the total return of the S&P 1500 Super composite net of fees for one, three, five, seven, and ten-year periods and a market cycle.

Rank above median in a public plan universe of domestic equity investments.

- Index/Passive Return within 20 basis points of the S&P 500 Index, 50 basis points for the S&P 400 mid-cap, and 60 basis points for the S&P 600 small-cap over one, three, five, seven, and ten-year periods and a market cycle.
 - Active Management Exceed the most relevant S&P Index (or the most relevant Russell Index), adjusting for market capitalization and style, net of fees for one, three, five, seven, and ten-year periods and a market cycle.

Rank above median in a universe of managers possessing a similar market cap and style characteristics.

2. International Equities Exceed the total return of the MSCI All Country World Index ex-U.S. (or the most relevant S&P Index) net of fees for one, three, five, seven, and tenyear periods and a market cycle.

Rank above median in a public plan universe of non-U.S. equity investments.

Index/Passive Return within 250 basis points of the most relevant non-U.S. index net of fees for one, three, and fiveyear periods and a market cycle. Return within 250 basis points of the MSCI Emerging Markets Index, for one, three, five, seven, and ten-year periods and a market cycle.

Active Management Exceed the most relevant MSCI Index (or the most relevant S&P Index) net of fees, adjusting for market capitalization, style and geography for one, three, five, seven, and ten-year periods and a market cycle.

Rank above median in a universe of managers possessing a similar market capitalization, style, and geography characteristics.

3. Private Equity Exceed the S&P 500 Index by 300 basis points net of fees lagged by three months over one, three, five, seven, and ten-year periods and a market cycle.

	Rank above median in a public plan universe of private equity investments.
4. Absolute Return	Exceed T-bills by 400 basis points net of fees over one, three, five, seven, and ten-year periods and a market cycle.
	Exceed the appropriate HFN Fund of Funds median net of fees over one, three, five, seven, and ten-year periods and a market cycle.
	If available, rank above median in a public plan universe of hedge fund investments.
5. Real Return/ Opportunistic	Blended Benchmark - Exceed the increase in the U.S. CPI by 500 basis points annually net of fees over one, three, five, seven, and ten-year periods and a market cycle (50%) and exceed the actuarial rate of return (50%).
	TIPS and Commodities performance will be broken out separately:
	TIPS – Exceed the Barclays U.S. TIPS Index over one, three, and five-year periods and a market cycle.
	Commodities – Exceed the Dow Jones-AIG Total Return Commodities Index over one, three, five, seven, and ten-year periods and a market cycle.
	If available, rank above median in a nationally recognized universe of managers possessing a similar style.
6. Real Estate	Exceed the NPI over the one, three, five, seven, and ten-year periods and a market cycle, less 130 basis points. Meet or exceed the NCREIF-ODCE over one, three, five, seven, and ten-year periods and a market cycle.
	Rank above median in a public plan universe of private equity investments.
7. Infrastructure	Exceed the average annual increase in the U.S. CPI, lagged one quarter, by 400 basis points, net of fees, over the three five, seven, and ten-year periods and a market cycle.

If available, rank above median in a nationally recognized universe of managers possessing a similar style.

8. Fixed Income Exceed the most relevant Barclay's Index adjusting for credit risk and duration, net of fees for one, three, five, seven, and ten-year periods and a market cycle.

Rank above median in a nationally recognized universe of managers possessing a similar style.

VI. General Investment Manager Guidelines and Requirements

- A. Purchases and sales, security selection, and portfolio implementation of investment strategies are delegated to the discretion of the investment manager, subject to compliance with MPSERS's investment policies, individual contracts, P.A. 314, and P.A. 234. If a commingled vehicle or mutual fund is utilized, the investment policies of that fund shall be considered the operative policy document.
- B. The following transactions are prohibited: Purchase of any securities or execution of any other transactions prohibited by P.A. 314 and P.A. 234.
- C. Transactions that involve a broker acting as a "principal" where such broker is also the investment manager who is making the transaction are prohibited. Brokers acting as investment managers are limited to "agency" transactions.
- D. Transactions shall be executed at a reasonable cost, taking into consideration prevailing market conditions and services and research provided by the executing broker.
- E. Investment managers shall vote proxies in accordance with the Proxy Voting Policy of the State of Michigan. The BOI agrees to promptly provide investment managers with any additions or modifications to the Proxy Voting Policy.
- F. All investment managers shall make the following disclosures:
 - 1. Periodically: Disclose any client relationship, including management of 401(k) plans, where the money management firm could invest state or pension moneys in the securities of the client.
 - 2. Periodically: Disclose, as requested, the manner in which portfolio managers and research analysts are compensated including any compensation resulting from the solicitation or acquisition of new clients or the retention of existing clients.
 - 3. Annually: Provide the SMRS with a copy of a safeguards plan and certify annually that the safeguards plan is being fully enforced. The safeguards plan

applies to Investment Managers affiliated with banks, investment banks, insurance companies, or other financial services corporations. The safeguards plan ensures that client relationships of any affiliate company do not influence investment decisions of the money management firm.

- 4. Quarterly: Report the amount of commissions paid to broker-dealers, and the percentage of commissions paid to broker-dealers.
- E. All internal managers shall adhere to the Bureau of Investments' *Standards of Professional Conduct*. As part of the *Standards of Professional Conduct*, the BOI has a personal trading policy in place that requires that all BOI employees (including the State Treasurer) obtain pre-approval for certain personal investments transactions and abide by specified ethical standards.
- F. All investment managers will be expected to provide MPSERS, the custodian, and their investment consultant, on a timely basis each quarter, such data as is required for proper monitoring.
- G. No more than 5% of the MPSERS's portfolio at its initial cost or initial market value may be invested in the securities of a single issuer, excluding securities issued by the U.S. government or its agencies.
- H. Except as permitted by Section 17 of P.A. Act 314, no fixed income security shall have an equivalent credit quality below investment grade at the time of purchase defined as:

BBB- by S&P for straight bonds and convertibles.

Baa (3) by Moody's Investor Service for straight bonds and convertibles.

For short-term securities, credit rating must be within the two highest ratings established by at least two national rating services.

- I. The use of index futures is permitted to achieve (but not limited to) the following:
 - 1. To reduce the opportunity cost caused by "cash drag" in a rising market.
 - 2. To decrease the transaction costs of trading without increasing the risk (volatility) of that component of MPSERS.
 - 3. To increase the manager's flexibility in meeting the performance objectives set forth for them within defined investment style and strategy constraints.
- J. Futures must be used in accordance with P.A. 314.
- K. The Real Estate portfolio may be invested in (through various legal structures) properties located outside of the United States.
- L. Performance objectives are to be met on a net-of-fees basis.

- M. All guidelines must be adhered to by internal and external money managers. However, if from time to time an exception to the guidelines shall be deemed appropriate by a manager, it may seek review and approval by the State Treasurer, as sole fiduciary, to make such an exception, as facts and circumstances may dictate.
- N. Investment managers must comply with state laws prohibiting the State of Michigan from investing public monies in companies engaged in active business operations in countries designated as a state sponsor of terror by the United States Secretary of State. The BOI will provide investment managers with a list of prohibited companies each quarter. Investment managers must refrain from acquiring additional securities in those companies until receiving further direction from the BOI.
- O. Investment managers must comply with all applicable state and federal laws and SEC rules and regulations, including but not limited to, Pay to Play prohibitions adopted by the SEC under the Investment Advisors Act of 1940.

VII. Insider Trading Policy

All internal portfolios will be managed in compliance with the Insider Trading Policy. Buying or selling securities while aware of material non-public (inside) information concerning the issuer of the securities, or improperly disclosing to others such inside information, may constitute fraud under federal and state securities laws and a violation of other legal and regulatory requirements. Inside information also includes information that a BOI staff member may have concerning State of Michigan Retirement Systems (SMRS) securities positions or trading.

VIII. Ethics

The BOI is subject to Public Act 196 of 1973 (P.A. 196) and Michigan Civil Service Rule 2-8 with respect to any gifts to Michigan state public officers or employees and ethical standards of conduct. Investment managers shall use best efforts to ensure that its activities do not result in a Michigan state public officer or employee violating the requirements of P.A. 196 and Michigan Civil Service Rule 2-8 with respect to any gifts or ethical standards of conduct.

IX. Proxy Voting Policy

The BOI acts as the arm of the State Treasurer in directing investments on behalf of the retirement systems for the state employees, state police, judges, and public school employees. The BOI has adopted a Proxy Voting Policy for the four systems. The Proxy Voting Policy is reviewed annually to reflect changes in state and federal laws and emerging trends and issues in corporate governance.

X. Divestment

The State Treasurer, as sole fiduciary for the MPSERS, must adhere to divestment mandates contained in P.A. 314 and P.A. 234. Together, the statutes prohibit investing public monies in companies doing business in countries designated as a state sponsor of terror by the United States Secretary of State. In compliance with the statutes, the BOI, through its service provider, conducts a quarterly review of its holdings to ensure that it is not investing in companies with active business operations in a state sponsor of terror. The State Treasurer initiates engagement with companies that have business operations in state sponsors of terror with the goal of discouraging corporations from doing business in companies with ties to state sponsors of terror. The State Treasurer may retain a consultant to assist in its divestment compliance.

XI. Review and Modification of Investment Policy Statement

The State Treasurer, as sole fiduciary, will review the Policy approximately every two years to determine if modifications are necessary or desirable. The most current Investment Policy Statement shall be made available to the public on the BOI Web site.

Approved:

By:

(Signature)

Andy Dillon State Treasurer

(Date)