



MICHIGAN

OFFICE OF THE AUDITOR GENERAL

AUDIT REPORT



THOMAS H. McTAVISH, C.P.A.
AUDITOR GENERAL

“...The auditor general shall conduct post audits of financial transactions and accounts of the state and of all branches, departments, offices, boards, commissions, agencies, authorities and institutions of the state established by this constitution or by law, and performance post audits thereof.”

– Article IV, Section 53 of the Michigan Constitution

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Michigan
Office of the Auditor General
REPORT SUMMARY

Performance Audit

Report Number:
 27-250-05

Bureau of Investments

Department of Treasury

Released:
 September 2006

The mission of the Bureau of Investments (BOI), Department of Treasury, is to provide quality investment management services, professional expertise, and advice to the State Treasurer as fiduciary of the State of Michigan retirement systems (SMRS) and State of Michigan boards and agencies. BOI strives to provide consistent and cost-effective management of funds to achieve competitive investment returns that meet objectives within an acceptable level of risk for the benefit of employees, retirees, and citizens of the State of Michigan.

Audit Objective:

To assess the effectiveness of BOI's efforts in achieving competitive returns on investments within prudent levels of risk.

Audit Conclusion:

We concluded that BOI's efforts were moderately effective in achieving competitive returns on investments within prudent levels of risk. Our assessment disclosed a reportable condition related to employee performance evaluations (Finding 1).

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Audit Objective:

To assess the effectiveness of BOI's administrative controls over its investment function.

Audit Conclusion:

We concluded that BOI's administrative controls over its investment function were moderately effective. Our assessment disclosed reportable conditions related to securities litigation, personal trade controls,

Investment Protection Principles, real estate investments, and investment activities procedures (Findings 2 through 6).

Noteworthy Accomplishments:

BOI informed us that, in July 2004, it completed its transition to a mutual fund type management of its asset class portfolios for SMRS, resulting in increased flexibility and diversification of investment strategies as well as less time-intensive reconciliations with the custodial bank.

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Audit Objective:

To assess the effectiveness of BOI's efforts in ensuring the cost-effectiveness of its investment function.

Audit Conclusion:

We concluded that BOI's efforts were moderately effective in ensuring the cost-effectiveness of its investment function. Our assessment disclosed reportable

conditions related to evaluation of investment costs and soft dollar arrangements (Findings 7 and 8).

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Agency Response:

Our audit report includes 8 findings and 8 corresponding recommendations. BOI's preliminary response indicates that it agrees with all the recommendations.

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A copy of the full report can be obtained by calling 517.334.8050 or by visiting our Web site at: <http://audgen.michigan.gov>



Michigan Office of the Auditor General
201 N. Washington Square
Lansing, Michigan 48913

Thomas H. McTavish, C.P.A.
Auditor General

Scott M. Strong, C.P.A., C.I.A.
Deputy Auditor General



STATE OF MICHIGAN
OFFICE OF THE AUDITOR GENERAL
201 N. WASHINGTON SQUARE
LANSING, MICHIGAN 48913
(517) 334-8050
FAX (517) 334-8079

THOMAS H. MCTAVISH, C.P.A.
AUDITOR GENERAL

September 12, 2006

Mr. Robert J. Kleine
State Treasurer
Richard H. Austin Building
Lansing, Michigan

Dear Mr. Kleine:

This is our report on the performance audit of the Bureau of Investments, Department of Treasury.

This report contains our report summary; description of agency; audit objectives, scope, and methodology and agency responses and prior audit follow-up; comments, findings, recommendations, and agency preliminary responses; three exhibits, presented as supplemental information; and a glossary of acronyms and terms.

Our comments, findings, and recommendations are organized by audit objective. The agency preliminary responses were taken from the agency's response subsequent to our audit fieldwork. The *Michigan Compiled Laws* and administrative procedures require that the audited agency develop a formal response within 60 days after release of the audit report.

We appreciate the courtesy and cooperation extended to us during this audit.

AUDITOR GENERAL

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BUREAU OF INVESTMENTS DEPARTMENT OF TREASURY

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Description of Agency

The mission* of the Bureau of Investments (BOI), Department of Treasury, is to provide quality investment management services, professional expertise, and advice to the State Treasurer as fiduciary of the State of Michigan retirement systems* (SMRS) and State of Michigan boards and agencies. BOI strives to provide consistent and cost-effective* management of funds to achieve competitive investment returns that meet objectives within an acceptable level of risk for the benefit of employees, retirees, and citizens of the State of Michigan.

BOI is responsible for managing the investments of SMRS, which consists of the Judges', Public School Employees', State Employees', and State Police Retirement Systems. Sections 38.1132 - 38.1140m of the *Michigan Compiled Laws* (Act 314, P.A. 1965) define and limit the investments that may be made by an investment fiduciary with assets of a public employee retirement system and prescribe the powers and duties of investment fiduciaries, including those of the State Treasurer. BOI reports directly to the State Treasurer, as sole investment fiduciary of SMRS, who has final approval for all investment decisions. BOI maintains separate investment performance data and asset allocation policies for each of the four retirement systems. SMRS is the thirteenth largest public pension fund and the nineteenth largest pension fund in the United States.

BOI reports quarterly investment activity related to SMRS to an Investment Advisory Committee (IAC). IAC reviews the investments, goals, and objectives of SMRS and may submit recommendations regarding them to the State Treasurer. IAC, which was created by Section 16.191 of the *Michigan Compiled Laws* (Act 380, P.A. 1965), is composed of the director of the Department of Labor and Economic Growth, the director of the Department of Management and Budget, and three public members appointed by the Governor.

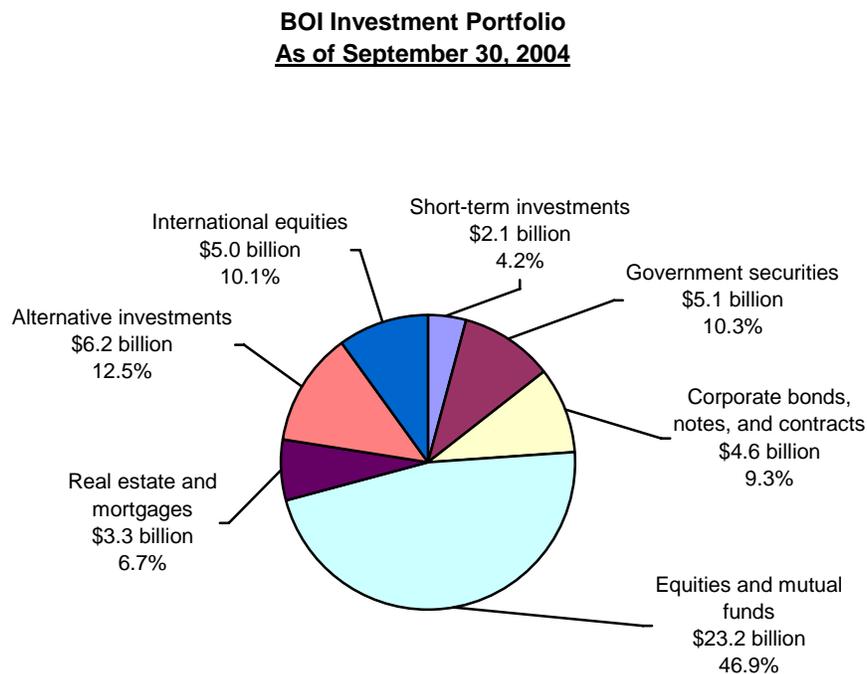
BOI is also responsible for managing the investments of surplus cash in the State Treasury in accordance with Sections 21.141 - 21.147 of the *Michigan Compiled Laws* (Act 105, P.A. 1855). This includes managing the State's Common Cash pool to ensure

* See glossary at end of report for definition.

that sufficient money is on hand to meet the cash disbursement needs of the State and managing the investment of surplus cash for various special loan programs.

BOI also manages the investments for various State agency governmental and trust funds, the State Lottery, the Michigan Education Trust, and the Mackinac Bridge Authority, in accordance with the enabling statutes for these funds.

As of September 30, 2004, the total portfolio of investments managed by BOI was \$49.5 billion, consisting of the following types of investments:



As of September 30, 2004, the market value of SMRS investments was \$47.1 billion, approximately 95% of total investments managed by BOI. Approximately 20% of the total SMRS investment portfolio, made up of primarily alternative investments and real estate investments, was managed by outside advisors.

BOI administers its activities in the following seven divisions:

1. The Alternative Investments Division manages SMRS investments in the private equity market primarily through limited partnerships.

2. The Long-Term Fixed Income Division manages investments in long-term government and corporate bonds.
3. The Short-Term Fixed Income Division manages investments and deposits in the State's Common Cash pool.
4. The Mortgage and Real Estate Division manages SMRS investments in real estate and real estate related investments through limited partnerships, limited liability companies, and commingled funds*.
5. The Quantitative Analysis Division manages SMRS investments in passive domestic and international equity pools, including swap agreements and futures contracts.
6. The Stock Analysis Division manages SMRS investments in active equities.
7. The Trust Accounting Division is responsible for accounting and reporting functions for the investments managed by BOI.

As of June 30, 2005, BOI had 72 employees. Total operating expenditures for fiscal year 2003-04 were \$8.8 million, which were funded from investment service fees charged to various State agencies and funds. Of these expenditures, \$6.7 million (76%) were for salaries, wages, and benefits for BOI employees.

** See glossary at end of report for definition.*

Audit Objectives, Scope, and Methodology and Agency Responses and Prior Audit Follow-Up

Audit Objectives

Our performance audit* of the Bureau of Investments (BOI), Department of Treasury, had the following audit objectives:

1. To assess the effectiveness* of BOI's efforts in achieving competitive returns on investments within prudent levels of risk.
2. To assess the effectiveness of BOI's administrative controls over its investment function.
3. To assess the effectiveness of BOI's efforts in ensuring the cost-effectiveness of its investment function.

Audit Scope

Our audit scope was to examine the program and other records related to the Bureau of Investments. Our audit was conducted in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States and, accordingly, included such tests of the records and such other auditing procedures as we considered necessary in the circumstances.

Supplemental information was provided by BOI and is presented in Exhibits 1, 2, and 3. Our audit was not directed toward expressing an opinion on this information and, accordingly, we express no opinion on it.

Audit Methodology

Our audit procedures, conducted from May through October 2005, included examination of BOI records primarily for the period October 1, 2002 through June 30, 2005.

We conducted a preliminary review of BOI's operations to formulate a basis for defining the audit objectives and scope. Our preliminary review included interviewing BOI personnel; reviewing applicable statutes, regulations, and rules; reviewing BOI policies

* See glossary at end of report for definition.

and procedures; reviewing major contracts for custodial services, information systems, consultants, and outside money managers; and reviewing various performance and management reports used by BOI to monitor and evaluate the performance of its investments.

To accomplish our first objective, we reviewed the performance benchmarks established by BOI for its investments in the State of Michigan retirement systems (SMRS) on an overall basis and by individual asset class and evaluated whether the portfolio activity associated with the applicable benchmark was comparable to the activity of BOI's portfolio. Also, we compared the performance benchmarks with the benchmarks established by other public pension funds managing similar portfolios. We obtained and reviewed performance and other statistical data related to BOI's investments for SMRS (see Exhibits 1 through 3). We also reviewed BOI's methodologies for evaluating and reporting on the performance of its investments. In addition, we reviewed BOI's methods for evaluating and measuring the performance of its employees responsible for making investment decisions and recommendations.

To accomplish our second objective, we reviewed BOI's operating procedures for each division. We evaluated BOI's practices for selecting and monitoring outside money managers, outside advisors, investment brokers, and its custodial bank*. We also evaluated BOI's procedures for participating in and monitoring securities class action claims and settlements. In addition, we reviewed BOI's policies established for employee professional conduct and conflicts of interest and its procedures for monitoring its employees for compliance with these policies.

To accomplish our third objective, we reviewed BOI's operating expenditures, fees for executing trades with brokers, and fees negotiated with outside advisors for externally managed investments and compared some of them to those of other public pension funds, where information was available. We also reviewed BOI's methods for evaluating its investment costs to ensure that it was operating in a cost-effective manner.

We use a risk and opportunity based approach when selecting activities or programs to be audited. Accordingly, our audit efforts are focused on activities or programs having the greatest probability for needing improvement as identified through a preliminary

* See glossary at end of report for definition.

review. By design, our limited audit resources are used to identify where and how improvements can be made. Consequently, our performance audit reports are prepared on an exception basis. To the extent practical, we add balance to our audit reports by presenting noteworthy accomplishments for exemplary achievements identified during our audits.

Agency Responses and Prior Audit Follow-Up

Our audit report includes 8 findings and 8 corresponding recommendations. BOI's preliminary response indicates that it agrees with all the recommendations.

The agency preliminary response that follows each recommendation in our report was taken from the agency's written comments and oral discussion subsequent to our audit fieldwork. Section 18.1462 of the *Michigan Compiled Laws* and Department of Management and Budget Administrative Guide procedure 1280.02 require the Department of Treasury to develop a formal response to our audit findings and recommendations within 60 days after release of the audit report.

We released our prior performance audit of the Bureau of Investments, Department of Treasury (#2725093), in July 1995. Within the scope of this audit, we followed up 4 of the 6 prior audit recommendations. BOI complied with 2 of the 4 prior audit recommendations. We rewrote 1 prior audit recommendation (Finding 1) for inclusion in this audit report and repeated 1 prior audit recommendation (Finding 6) in this report.

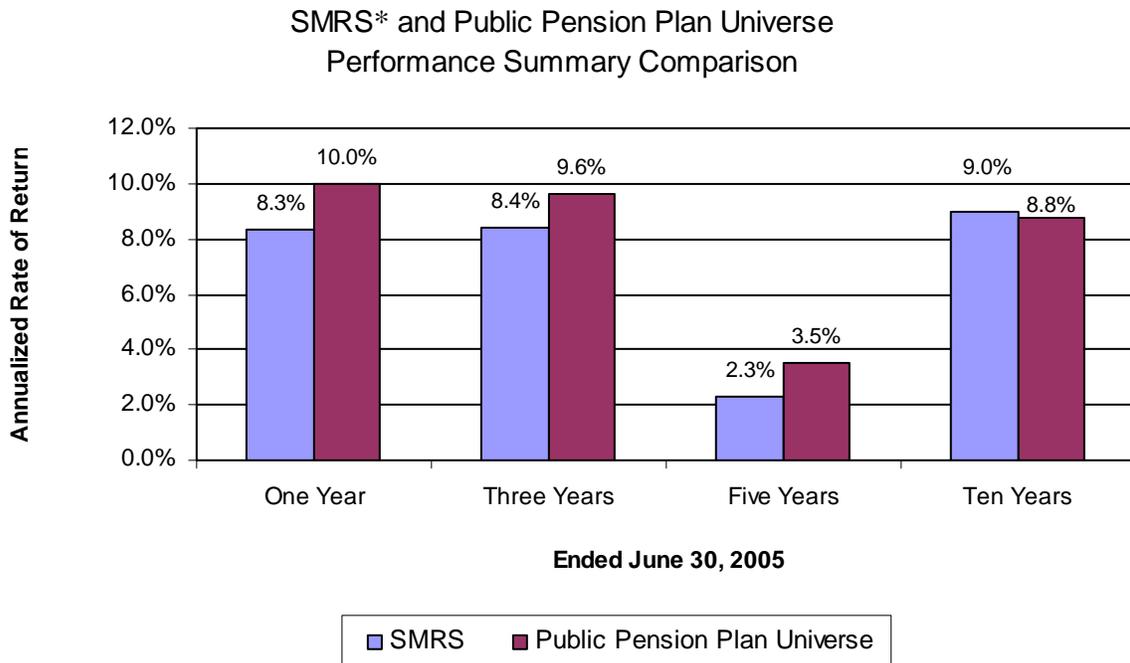
COMMENTS, FINDINGS, RECOMMENDATIONS,
AND AGENCY PRELIMINARY RESPONSES

EFFECTIVENESS OF EFFORTS IN ACHIEVING COMPETITIVE RETURNS ON INVESTMENTS WITHIN PRUDENT LEVELS OF RISK

COMMENT

Background: The Bureau of Investments (BOI) uses the services of a custodial bank to compare State of Michigan retirement systems' (SMRS's) rates of return with the performance of similar pension plans. The custodial bank ranks the performance of each of the four retirement plans in SMRS against public pension plans with greater than \$1 billion in assets (public pension plan universe). For the period ended March 31, 2005, each retirement plan in SMRS was included in a universe consisting of 58 public pension plans.

For the ten-year period ended June 30, 2005, the annualized rate of return on SMRS assets was 0.2% above the median of the group of similar state pension funds included in the public pension plan universe. The following chart compares the rate of return on SMRS assets with the median rate of return on assets in the public pension plan universe for the one-, three-, five-, and ten-year periods ended June 30, 2005:



* Represented by the returns of the Public School Employees' Retirement System, which was approximately 78% of the SMRS total portfolio as of June 30, 2005.

BOI's custodial bank also measures the risk versus return on SMRS assets, as measured by the standard deviation*. As demonstrated in Exhibit 2, for the ten-year period ended June 30, 2005, the standard deviation of SMRS assets was 1.4% below the median standard deviation for the public pension plan universe. This demonstrates that SMRS had a less risky portfolio than the average. A less risky portfolio often results in more modest rates of return.

Audit Objective: To assess the effectiveness of BOI's efforts in achieving competitive returns on investments within prudent levels of risk.

Conclusion: We concluded that BOI's efforts were moderately effective in achieving competitive returns on investments within prudent levels of risk. Our assessment disclosed a reportable condition* related to employee performance evaluations (Finding 1).

FINDING

1. Employee Performance Evaluations

BOI did not evaluate all of its employees who were responsible for making investment decisions and recommendations on a basis that was consistent with the performance objectives established for its investments.

Aligning employee performance objectives with the performance objectives of BOI investments will help ensure that all employees understand their responsibilities and roles in helping to achieve BOI's investment goals.

BOI's investment policy statements for SMRS provide measurable investment performance objectives for each SMRS portfolio and for individual asset classes. Each of BOI's six investment divisions are responsible for managing specific asset classes and have goals and objectives for meeting or exceeding benchmarks established for its asset classes.

Our review of the performance objectives used to evaluate 21 employees responsible for making investment decisions and recommendations disclosed:

- a. The performance objectives for 3 division administrators were not consistent with the investment performance benchmarks established for their divisions.

* See glossary at end of report for definition.

- b. The performance objectives for 3 employees were based on the investment performance of the entire portfolio managed by their division, but were not based on the investment performance of the specific investment portfolio assigned to these employees.
- c. The performance objectives for 10 employees were not directly related to investment performance.

Although some of the written objectives established for these employees were performance related, they were based on division activities rather than the performance of the investments assigned to these employees. Examples of these objectives included communicating with companies to obtain investment information and making buy, sell, and hold recommendations that were appropriate for the division's economic and market outlooks.

We noted a similar condition in the prior audit. BOI informed us that it agreed to work on establishing measurable goals and objectives for its analysts. Although we noted that BOI established measurable goals and objectives for its analysts, they were not always directly related to investment performance.

RECOMMENDATION

We recommend that BOI evaluate its employees who are responsible for making investment decisions and recommendations on a basis that is consistent with the performance objectives established for its investments.

AGENCY PRELIMINARY RESPONSE

BOI agrees with the recommendation and informed us that it has updated and improved its employee performance evaluations to better align them with investment performance objectives.

EFFECTIVENESS OF ADMINISTRATIVE CONTROLS OVER INVESTMENT FUNCTION

COMMENT

Audit Objective: To assess the effectiveness of BOI's administrative controls over its investment function.

Conclusion: We concluded that BOI's administrative controls over its investment function were moderately effective. Our assessment disclosed reportable conditions related to securities litigation, personal trade controls, Investment Protection Principles, real estate investments, and investment activities procedures (Findings 2 through 6).

Noteworthy Accomplishments: BOI informed us that, in July 2004, it completed its transition to a mutual fund type management of its asset class portfolios for SMRS. This transition was the result of switching to a new investment accounting system during fiscal year 2002-03 that uses unitized or mutual fund accounting for the four pension plans. Under the new system, the investment assets of SMRS were combined into 22 investment strategies. Asset allocation among the four pension plans is accomplished by buying or selling units of ownership in the individual strategies. Under the previous system, each transaction in the investment portfolios needed to be allocated to each of the four pension plans, which resulted in four transactions for each investment transaction. BOI informed us that the new pooled structure allows for increased flexibility and diversification of investment strategies within each of the four pension plans as well as less time-intensive reconciliations with the custodial bank.

FINDING

2. Securities Litigation

BOI did not have effective controls over its securities class action claim and recovery process. As a result, BOI could not ensure that it participated in all class action settlement amounts for which it was eligible.

BOI's procedures for managing securities class action claims on behalf of SMRS provide that its custodial bank shall be responsible for the timely filing of proofs of claim in all actions involving securities held on behalf of SMRS. BOI's procedures also provide that BOI staff shall be responsible for monitoring the timely and effective filing of proofs of claim by BOI's custodial bank. According to the requirements outlined in securities class action notices, completed proof of claim forms must be postmarked on or before the claim deadline in order for claimants to participate in the settlement distribution.

Our review disclosed:

- a. BOI's contract with its custodial bank did not provide that its custodial bank was responsible for filing proofs of claim for BOI. In addition, BOI informed us that it had not reviewed the custodial bank's written procedures for filing proofs of claim.

- b. BOI did not maintain reports of securities class action claims filed on its behalf as compiled by its custodial bank to track the status of filed claims and proceeds received. BOI subsequently requested these reports from its custodial bank upon our request for this information.

Our review of the custodial bank's report of securities class action claims with claim deadlines for the period October 1, 2002 through June 30, 2005 noted:

- (1) BOI's custodial bank did not file 28 (21.7%) of 129 proofs of claim for SMRS within the claim deadline. The report indicated that the late proofs of claim were filed an average of five days late.

BOI subsequently provided us with documentation indicating that there was no impact on BOI's recovery of settlement amounts for 23 of the 28 proofs of claim because either they were accepted by the claims administrator or there were no recognized losses.

BOI's potential share of the settlement amounts is not determinable. BOI's actual recovery of class action settlement amounts is dependent on many factors, including the number of claimants, the number of shares purchased and sold during the class period, and legal expenses for administering the claims process.

- (2) The custodial bank's report of securities class action claims did not always contain accurate information. Our initial review disclosed 3 additional claims that appeared to have been filed late; however, we subsequently determined that the claim deadlines presented on the custodial bank's report were inaccurate.

RECOMMENDATION

We recommend that BOI improve its controls over its securities class action claim and recovery process.

AGENCY PRELIMINARY RESPONSE

BOI agrees with the recommendation and informed us that it did not forgo any of the proceeds that it was eligible to collect because of the late filings by the custodial bank. BOI performed additional follow-up with the custodial bank after the audit. BOI informed us that in the 5 cases cited in part b.(1) of the finding, the custodial bank contacted the claims administrator regarding the status of BOI's

claim. Based on this follow-up, BOI informed us that it is confident that the settlement proceeds will be received if there was, in fact, a recognized loss for securities held by the retirement systems during the class period.

BOI informed us that it has included securities class action filing responsibilities in its new custodial banking contract, which was executed in June 2006. In addition, BOI informed us that it entered into an agreement in July 2006 with an independent securities class action expert, who will assist BOI in monitoring the custodial bank's compliance with contractual requirements for timely filing of proofs of claim.

FINDING

3. Personal Trade Controls

BOI should improve controls over its procedures for restricting personal trading activities of its employees.

Improved controls over employee personal trading activities would provide greater assurance that BOI employees are not using nonpublic information learned because of their employment to conduct illegal insider trading.

U.S. Securities and Exchange Commission (SEC) Rule 10b-5 (Title 17, Section 240.10b-5 of the *Code of Federal Regulations*) prohibits illegal insider trading, which is defined as buying or selling a security, in breach of fiduciary duty or other relationship of trust and confidence, while in possession of material, nonpublic information about the security. In addition, Section 2(5), Act 196, P.A. 1973, as amended, prohibits employees from using their official positions or confidential information obtained because of their official positions for personal gain or benefit.

In February 2004, BOI implemented a policy restricting employee personal trading activities as part of its professional conduct expectations policy. The policy requires BOI employees to obtain approval from BOI's chief administrative officer (CAO) prior to engaging in personal securities transactions for stocks, corporate bonds, exchange traded funds, convertible securities, warrants, options, and other derivatives. BOI employees, Department of Information Technology employees who provide technology support to BOI, the State Treasurer, and the Chief Deputy Treasurer are subject to the policy, in addition to their spouses and minor children.

The policy specifically restricts personal trading of securities on which BOI has a current open position (commitment to trade), securities that BOI has traded within the last three business days, and securities that BOI is currently considering

trading. To help implement the policy, BOI developed an electronic personal trading system whereby stocks that BOI is trading or considering trading are placed on a restricted stock list within the personal trading system. BOI employees can then use the personal trading system to request electronic preapproval for their personal trade requests for stocks. If the requested stock is on the restricted stock list on the date of the request, the request will be denied and the BOI employee is restricted from trading this stock until it is removed from the restricted stock list.

Within 30 days following the end of each quarter, BOI employees are required to submit personal securities brokerage statements to the CAO if the employees engaged in personal trading activity. If the employees did not engage in personal trading activity, they are required to inform the CAO through a quarterly e-mail disclosing that they had no reportable investment transactions. The CAO compares the activity on the securities brokerage statements to the actual requests made by the individuals during the previous quarter and to the restricted stock list.

Our review of BOI's controls over the personal trading policy disclosed the following areas in which controls could be improved:

- a. BOI did not ensure that the restricted stock list was properly updated and maintained to ensure that BOI employees did not inadvertently trade a stock that should have been restricted. BOI's primary securities trader was responsible for manually deleting stocks from the restricted stock list when a stock was no longer being considered for trading by BOI. The CAO did not review or approve the restricted stock list or review deletions from the restricted stock list to ensure that stocks were not prematurely deleted. Our testing of a random sample of 54 deletions from the restricted stock list between March 18, 2004 (the inception of the electronic trading approval system) and June 30, 2005 disclosed that BOI prematurely deleted from the restricted stock list 1 (1.9%) stock for subsequent BOI trading activity. Although we determined that there were no personal trade requests submitted for this stock during this time period, the risk of improper trading by employees is still present because of the lack of oversight of the restricted stock list updates.
- b. BOI required only employees who had submitted personal trade requests to submit personal securities brokerage statements; therefore, BOI could not ensure that all employees were complying with the policy. As of June 30, 2005, 78 employees were subject to the policy, and we noted that 23 (29.5%) current employees and 1 departed employee submitted personal trade

requests. Although our testing of the personal trade requests submitted by BOI employees disclosed no instances of noncompliance, our testing was limited to reviewing only reported personal trade requests. BOI did not maintain copies of the employees' securities brokerage statements after its review. Because many BOI employees have access to nonpublic information about securities traded or considered by BOI, BOI should consider requiring annual financial disclosures of certain employees or using financial information from external sources to provide additional assurance that BOI employees are complying with the policy.

RECOMMENDATION

We recommend that BOI improve controls over its procedures for restricting personal trading activities of its employees.

AGENCY PRELIMINARY RESPONSE

BOI agrees with the recommendation and informed us that the implementation of the current electronic personal trading control system was one of the first of its kind among public pension investment organizations. BOI informed us that, with regard to part a. of the finding, while only one exception was noted, BOI has implemented a procedure requiring the CAO to review and approve the restricted stock list (including deletions). With regard to part b. of the finding, BOI will evaluate the benefits of requiring all employees to submit personal securities brokerage statements, as well as make enhancements to its current personal trading control system.

FINDING

4. Investment Protection Principles

BOI did not ensure that all money management and brokerage firms retained or utilized by BOI complied with the Investment Protection Principles (IPP), as required by Executive Directive No. 2003-11.

According to the Executive Directive, it is important that the State of Michigan take an active role in advancing corporate reform in its efforts to safeguard the public treasury; protect pensioners, families, and taxpayers; and improve the faith and confidence of investors.

The IPP was modeled after an agreement reached between the New York State Attorney General and Merrill Lynch on May 21, 2002 and was designed to ensure

that potential conflicts of interest do not influence the investment decisions of money management firms that handle investments for public pension funds as well as other investors. Conflicts of interest may arise when money management firms feel compelled to invest public pension and other public funds in the stocks of their corporate clients even if it is not in the best interest of the pension funds. Conflicts of interest may also exist when money manager research analysts are reluctant to provide objective research advice, knowing that adverse recommendations may cause their firms to lose corporate clients. Several state and public pension funds are now requiring their money management and brokerage firms to comply with the IPP.

Executive Directive No. 2003-11, issued April 4, 2003, requires all money management firms retained by the State to:

- Disclose periodically any client relationships where the money management firm could invest State or retirement system funds in the securities of its clients.
- Disclose annually the manner in which their portfolio managers and research analysts are compensated.
- Report quarterly the amount of commissions paid to broker-dealers.
- Adopt safeguards to ensure that client relationships do not influence investment decisions.
- Consider the corporate governance policies and practices and the quality and integrity of financial data when deciding whether to invest State or retirement system funds in companies.

Executive Directive No. 2003-11 also requires brokerage firms retained by the State to adopt the IPP, including severing the link between compensation for research analysts and volume of investment banking business and establishing a monitoring process to ensure compliance with the IPP.

As of September 1, 2005, BOI had client relationships with 54 companies that were required to comply with Executive Directive No. 2003-11. These consisted of 34 brokerage firms used to buy and sell securities, 9 external money management firms used to manage a portion of the SMRS portfolio, and 11 external mutual fund

managers to manage the funds available through the State's deferred compensation plans.

BOI informed us that it sent letters to its brokerage firms, money management firms, and mutual fund managers requesting that they indicate their acknowledgement and acceptance of the IPP by signing and returning the original letter to BOI. Our review disclosed:

- a. BOI failed to obtain any type of acknowledgement of the IPP letters from 27 (50.0%) of the 54 firms. Of the 27 firms that acknowledged the IPP letter, 6 (22.2%) indicated that they could not fully comply with the IPP because either they believed some of the conditions were not applicable to them or they could not disclose client relationships because of client privacy agreements.
- b. Of the 9 money management firms and 11 mutual fund managers that were required to file quarterly and annual disclosures, 19 (95.0%) had not yet complied.
- c. BOI could not document that it sent letters to 16 (47.1%) of the 34 brokerage firms and 1 (9.1%) of the 11 mutual fund managers.

RECOMMENDATION

We recommend that BOI ensure that all money management and brokerage firms retained or utilized by BOI comply with IPP, as required by Executive Directive No. 2003-11.

AGENCY PRELIMINARY RESPONSE

BOI agrees with the recommendation and informed us that it has received signed IPP letters from all securities brokerage firms, external money management firms, and external mutual fund managers retained or utilized by BOI. Also, BOI informed us that it has implemented procedures that will ensure that IPP letters are signed and returned as a condition precedent to the commencement of any future relationship with firms providing these services to BOI.

FINDING

5. Real Estate Investments

BOI did not always ensure that real estate investment entities submitted quarterly and annual reports on a timely basis. As a result, BOI could not ensure that it

based its performance and market value information for all of its real estate investments on the most current data.

Sections 38.1138 - 38.1140 of the *Michigan Compiled Laws* provide that BOI may invest assets of SMRS in real estate or mortgages and may form limited partnerships, corporations, limited liability companies, trusts, or other organizational entities for the purpose of holding title to and managing the properties. During the period October 1, 2002 through June 30, 2005, BOI held most of its real estate investments through various legal investment entities, such as limited partnerships and limited liability companies. BOI's investment agreements with the legal entities require that they submit quarterly reports and annual audit reports to BOI by various due dates, ranging from 30 to 45 days after the end of each quarter for quarterly reports and ranging from 75 to 120 days after the end of the calendar year for annual audit reports.

Our review of 10 (27.8%) of 36 investment agreements and the quarterly and annual reports received for the period October 1, 2002 through March 31, 2005 disclosed:

- a. Of the 72 quarterly reports submitted, 27 (37.5%) were submitted more than one week late, ranging from 1 to 18 weeks late. On average, the reports were submitted 4.5 weeks late.
- b. Of the 23 annual audited financial statements submitted, 15 (65.2%) were submitted more than one week late, ranging from 1 to 35 weeks late. On average, the reports were submitted 9.5 weeks late.

BOI uses information from the quarterly reports to update performance and market value information for its real estate investments. BOI informed us that there is a one quarter time lag in updating this information; therefore, it must receive all quarterly reports by the end of the next quarter. Our review disclosed that 5 (18.5%) of the 27 late quarterly reports were submitted after the end of the next quarter.

RECOMMENDATION

We recommend that BOI ensure that real estate investment entities submit quarterly and annual reports on a timely basis.

AGENCY PRELIMINARY RESPONSE

BOI agrees with the recommendation and informed us that it has improved controls to help ensure that real estate investment entities submit future reports within required time frames. Specifically, BOI informed us that its Mortgage and Real Estate Division (MRED) has implemented policies and procedures to formally notify annually all real estate partners, managers, and/or trustees of their schedule of reporting deadlines for the upcoming year (as specified in their business agreements). Also, BOI informed us that MRED staff will notify electronically any party who fails to submit a quarterly report within 10 days of its due date or an annual audited report within 30 days of its due date. In addition, BOI informed us that MRED staff are reviewing existing reporting deadlines for those instances in which partnership assets have grown substantially since controlling documents were first written to assess the reasonableness of such deadlines. BOI informed us that MRED staff will seek the assistance of the Department of Attorney General to amend partnership documents where warranted.

FINDING

6. Investment Activities Procedures

BOI did not have complete updated operating procedures and did not obtain approval for updated operating procedures for all investment activities in a timely manner.

Periodic updating of operating procedures helps to ensure that employees have detailed explanations of BOI's approved processes, which promotes accountability and consistency in handling various functions. Complete updated operating procedures also ensure that daily duties and responsibilities are communicated in the event of employee absence and turnover and can assist with staff training.

Our review of BOI's operating procedures disclosed:

- a. BOI did not have complete operating procedures for its Long-Term Fixed Income Division and Quantitative Analysis Division during the audit period. BOI had developed policy statements for these divisions but had not developed specific procedures applicable to these policies. BOI subsequently developed operating procedures for these divisions and submitted them to the Department of Treasury for approval in September 2005.

- b. BOI did not submit updated operating procedures for its Alternative Investments Division and Stock Analysis Division to the Department of Treasury for approval in a timely manner. Our review disclosed that most of the formal operating procedures for the Alternative Investments Division had expired in 2000 and most of the formal operating procedures for the Stock Analysis Division had expired in 2003 and 2004. BOI implemented a new computerized stock trading system in fiscal year 2002-03; however, BOI did not update its procedures for the Stock Analysis Division to include procedures for this system. During our audit fieldwork in May 2005, BOI submitted updated operating procedures for these divisions to the Department of Treasury for approval.

Although BOI had documented various business processes through the use of flow charts and investment policies and guidelines, BOI did not have complete detailed procedures to document its investment activities within these four divisions. As of March 31, 2005, these divisions were responsible for managing approximately \$43.2 billion (88.4%) of the SMRS portfolio.

In August 2001, an investment advisory firm, contracted by BOI, issued an independent report addressing BOI's operations and controls. The advisory firm recommended that BOI develop clear written policies and procedures for each BOI division. In the same report, the advisory firm expressed concern over BOI's turnover rate because of the institutional knowledge base that is lost through employee attrition.

Our review of employee hires and departures within the four divisions disclosed a 25% turnover rate for the period October 1, 2002 through June 30, 2005. Considering the technical nature of managing BOI's investment portfolio, it is critical that BOI have complete updated operating procedures for all of its investment activities to ensure that employees have detailed knowledge of their daily duties and responsibilities. In addition, policies and procedures assist in training new staff and help minimize lost productivity and the risk associated with inexperienced staff.

We noted a similar condition in the prior audit and BOI agreed with the prior audit recommendation.

RECOMMENDATION

WE AGAIN RECOMMEND THAT BOI DEVELOP COMPLETE UPDATED OPERATING PROCEDURES AND OBTAIN APPROVAL FOR UPDATED

OPERATING PROCEDURES FOR ALL INVESTMENT ACTIVITIES IN A TIMELY MANNER.

AGENCY PRELIMINARY RESPONSE

BOI agrees with the recommendation. BOI informed us that it has submitted updated operating procedures for all divisions and investment activities to the Department of Treasury's Forms and Document Services Section, which coordinates the review and revision process for all official Department of Treasury policies and procedures. BOI informed us that all updated procedures have been finalized and approved by the BOI director and that they are proceeding through the Department of Treasury's review and revision process.

EFFECTIVENESS OF EFFORTS IN ENSURING COST-EFFECTIVENESS OF INVESTMENT FUNCTION

COMMENT

Audit Objective: To assess the effectiveness of BOI's efforts in ensuring the cost-effectiveness of its investment function.

Conclusion: We concluded that BOI's efforts were moderately effective in ensuring the cost-effectiveness of its investment function. Our assessment disclosed reportable conditions related to evaluation of investment costs and soft dollar arrangements (Findings 7 and 8).

FINDING

7. Evaluation of Investment Costs

BOI did not conduct a formal evaluation of its investment costs to ensure that it was operating in a cost-effective manner relative to its peers.

Conducting a formal evaluation of its investment costs compared with investment returns by investment class would help BOI ensure that it is providing cost-effective management of funds in accordance with its mission and the investment goals of SMRS. It would also help BOI evaluate the cost-effectiveness of managing investments internally versus managing investments externally.

BOI's mission states that BOI strives to provide cost-effective management of funds, including the investments of SMRS and various State of Michigan boards and agencies. As of September 30, 2004, the investments of SMRS made up

approximately 95% of the \$49.5 billion in investments managed by BOI. One of the investment goals and objectives of SMRS is to operate in a cost-effective manner relative to its peers. As of June 30, 2005, SMRS was included in a universe consisting of 58 public pension funds with assets exceeding \$1 billion.

For the fiscal year ended September 30, 2004, BOI's operating costs for internally managing SMRS investments were approximately \$8.6 million. Other investment expenses, which are netted against investment income, include fees for custodial and security lending services totaling \$28.9 million and management fees for outside advisors. Approximately 20% of the total SMRS investment portfolio, made up of primarily alternative investments and real estate investments, was managed by outside advisors during fiscal year 2003-04. BOI informed us that management fees in calendar year 2004 were approximately \$94.6 million and \$20.3 million for alternative investments and real estate investments, respectively.

BOI informed us that it did not formally evaluate the cost-effectiveness of its investments because the majority of its investments are managed internally and their operating costs amount to less than .03% of the market value of the SMRS portfolio managed internally. BOI also informed us that it has compared some of its investment costs to those of other public pension funds through ongoing discussions with its peers. We attempted to compare SMRS investment costs with the investment costs of other state public pension funds by reviewing the investment fees reported in their comprehensive annual financial reports. However, because generally accepted accounting principles as applicable to governments allow pension funds to net investment expenses against investment income if they are not readily separable, we could not perform a reliable comparison of the investment expenses reported for SMRS with those of other state public pension funds.

The Office of Retirement Systems contracts with an external consultant to conduct cost-effectiveness studies of SMRS. However, the Office of Retirement Systems informed us that these studies did not include a review of investment costs in relation to realized returns on SMRS investments.

RECOMMENDATION

We recommend that BOI conduct a formal evaluation of its investment costs to ensure that it is operating in a cost-effective manner relative to its peers.

AGENCY PRELIMINARY RESPONSE

BOI will continue to improve its own evaluations by assessing internal operating costs and external management fees in relation to total investment returns by investment class. BOI notes that it contracted in 2001, at a cost of \$330,000, for a formal comprehensive study of all aspects of its operations, including investment costs. The study concluded, among other things, that BOI's internal investment costs were competitive relative to other public fund systems with in-house management. BOI informed us that, considering current State budgetary constraints and the fact that there have been no material changes in the scope of investments managed by BOI or BOI's operating costs and external management fees, a formal third-party evaluation is not justifiable at this time.

FINDING

8. Soft Dollar Arrangements

BOI did not annually publish a list of all expenses paid by "soft dollars" as required by statute. As a result, BOI did not disclose that commissions paid to brokerage firms also included an implied charge for research information provided to BOI.

Section 38.1133(10) of the *Michigan Compiled Laws* requires that public employee retirement systems annually publish and make available to plan participants and beneficiaries a list of all expenses paid by soft dollars. The SEC defines soft dollars as arrangements whereby products or services other than execution of securities transactions are obtained by an investment manager from a brokerage firm in exchange for the investment manager directing securities transactions to the brokerage firm for execution. Soft dollar benefits include proprietary research arrangements provided directly by the brokerage firm's "in house" staff in addition to third-party research arrangements whereby the executing broker pays a third-party vendor to provide research information directly to the investment manager.

BOI meets periodically to determine the quantity of investment transactions that will be directed to each brokerage firm for future investment activity. BOI's objective is to allocate investment transactions and related commissions to the brokerage firms that provide the highest quality research information, which includes obtaining direct access to brokerage firm analysts. BOI reported \$5.3 million in commissions paid to investment brokerage firms for trading securities in the SMRS comprehensive annual financial reports for fiscal year 2003-04. The average commission rate paid for all brokerage firms was \$.04 per share, ranging from \$.02 to \$.05 per share. BOI informed us that the actual cost for executing a trade is

approximately \$.02 per share and the additional commission charge represents the value of the research provided by the brokerage firm. As a result, BOI paid approximately \$2.6 million to investment brokerage firms for research services in fiscal year 2003-04.

BOI informed us that the commissions paid to investment brokerage firms did not include soft dollars because it believed soft dollar arrangements included only research services provided by third-party vendors. BOI obtains research services directly from the brokerage firms that execute its trades. We obtained clarification from the SEC that the value of obtaining research services, including obtaining direct access to brokerage firm analysts, falls under the definition of soft dollars.

RECOMMENDATION

We recommend that BOI annually publish a list of all expenses paid by soft dollar arrangements as required by statute.

AGENCY PRELIMINARY RESPONSE

BOI agrees that Section 38.1133(10) of the *Michigan Compiled Laws* requires it to publish and make available to plan participants and beneficiaries a list of all expenses paid by soft dollars. BOI published its estimated brokerage firm research costs totaling \$3.08 million within the fiscal year 2004-05 SMRS comprehensive annual financial reports. BOI informed us that it used an estimate for these financial reports because brokers do not provide a breakdown of commissions between trade execution costs and research costs (soft dollars).

BOI informed us that the SEC recently confirmed that Section 28(e) of the Securities Exchange Act of 1934 regarding soft dollar regulation does not apply to public pension plans. However, in accordance with Section 38.1133(10) of the *Michigan Compiled Laws*, BOI will continue to publish this information in the SMRS comprehensive annual financial reports.

SUPPLEMENTAL INFORMATION

STATE OF MICHIGAN RETIREMENT SYSTEMS (SMRS) (1)
Time-Weighted Annualized Rates of Return
For the Period October 1, 2002 through June 30, 2005

Periods Ended	One Year		Three Years		Five Years		Ten Years	
	Rate	Rank (2)	Rate	Rank (2)	Rate	Rank (2)	Rate	Rank (2)
December 31, 2002	-10.89	82	-4.59	72	3.05	50	8.16	30
Median (3)	-8.08		-2.94		3.07		7.81	
March 31, 2003	-13.00	86	-6.63	78	0.93	56	7.47	44
Median (3)	-9.92		-4.54		1.32		7.40	
June 30, 2003	0.84	94	-3.81	88	2.02	68	8.19	42
Median (3)	4.13		-0.34		2.91		7.84	
September 30, 2003	14.81	59	-3.13	83	3.86	69	8.34	30
Median (3)	15.53		-0.32		4.39		7.95	
December 31, 2003	19.16	47	0.01	89	3.35	62	8.90	28
Median (3)	18.86		2.91		3.85		8.31	
March 31, 2004	24.46	73	2.80	96	3.22	83	9.39	32
Median (3)	27.23		4.89		4.14		8.85	
June 30, 2004	16.52	36	2.71	100	2.79	75	9.65	21
Median (3)	15.62		4.23		3.29		9.15	
September 30, 2004	12.57	43	4.96	100	3.23	75	9.39	35
Median (3)	11.94		6.95		3.79		9.15	
December 31, 2004	10.24	77	5.39	100	2.67	75	10.07	37
Median (3)	11.41		7.34		3.35		9.86	
March 31, 2005	7.64	47	5.24	95	1.75	85	9.51	33
Median (3)	7.42		7.05		2.67		9.23	
June 30, 2005	8.25	86	8.35	93	2.34	92	9.04	42
Median (3)	9.99		9.64		3.46		8.80	

(1) Represented by the returns of the Public School Employees' Retirement System, which was approximately 78% of the SMRS portfolio as of June 30, 2005.

(2) Plans are ranked according to performance by percentile against the public pension plan universe, which consists of public pension plans with greater than \$1 billion in assets; the lower the ranking, the better the performance.

(3) Median rate of return for the public pension plan universe.

Source: Bureau of Investments.

STATE OF MICHIGAN RETIREMENT SYSTEMS (SMRS) (1)
Annualized Risk Comparisons
For the Period October 1, 2002 through June 30, 2005

<u>Periods Ended</u>	<u>Three Years</u>		<u>Five Years</u>		<u>Ten Years</u>	
	<u>Risk (2)</u>	<u>Rank (3)</u>	<u>Risk (2)</u>	<u>Rank (3)</u>	<u>Risk (2)</u>	<u>Rank (3)</u>
December 31, 2002			11.00	46	8.93	40
Median (4)			11.31		9.41	
March 31, 2003			10.39	45	8.98	36
Median (4)			10.82		9.50	
June 30, 2003			10.99	45	9.23	41
Median (4)			11.42		9.70	
September 30, 2003			10.69	41	9.24	35
Median (4)			11.07		10.04	
December 31, 2003			10.24	41	9.42	26
Median (4)			10.82		10.28	
March 31, 2004	11.30	78	10.22	81	9.32	76
Median (4)	12.66		11.60		10.53	
June 30, 2004	11.29	80	10.13	81	9.27	80
Median (4)	12.58		11.45		10.50	
September 30, 2004	10.40	78	10.04	78	9.30	80
Median (4)	11.47		11.41		10.61	
December 31, 2004	10.57	78	9.65	80	9.30	82
Median (4)	11.74		11.05		10.66	
March 31, 2005	10.58	78	9.48	79	9.29	81
Median (4)	11.69		10.85		10.59	
June 30, 2005	9.43	83	9.50	77	9.18	76
Median (4)	11.07		10.82		10.59	

(1) Represented by the returns of the Public School Employees' Retirement System, which was approximately 78% of the SMRS portfolio as of June 30, 2005.

(2) Risk is measured by the standard deviation.

(3) Plans are ranked according to risk by percentile against the public pension plan universe, which consists of public pension plans with greater than \$1 billion in assets; the higher the ranking, the lower the risk.

(4) Median standard deviation for the public pension plan universe.

Source: Bureau of Investments.

STATE OF MICHIGAN RETIREMENT SYSTEMS (SMRS) (1)
Asset Class Performance Compared to Benchmarks
For the Period October 1, 2002 through June 30, 2005

<u>Asset Class</u>	<u>Number of Periods in Which BOI Portfolio Outperformed (2) Benchmark</u>	<u>Total Number of Periods Compared</u>	<u>Percentage of Periods in Which BOI Portfolio Outperformed Benchmark</u>	<u>Average Rate of Performance vs. Benchmark</u>
Alternative investments	10	33	30%	-0.97%
Government bonds (3)	2	12	17%	-0.56%
Corporate bonds (3)	0	11	0%	-1.05%
Mortgages and real estate	18	33	55%	0.04%
Active domestic equities	20	33	61%	0.42%
Passive domestic equities	25	25	100%	0.14%
International equities	<u>23</u>	<u>29</u>	79%	0.35%
Total	<u><u>96</u></u>	<u><u>176</u></u>	55%	-0.05%

- (1) Represented by the returns of the Public School Employees' Retirement System, which was approximately 78% of the SMRS total portfolio as of June 30, 2005.
- (2) Period covers 11 quarters from October 1, 2002 through June 30, 2005. Each quarter (four different time periods) was compared (three, five, and ten years ended that quarter).
- (3) Government and corporate bond portfolios were established starting the first quarter of 2004 and return calculations begin at that time.

Source: Bureau of Investments (BOI).

GLOSSARY

Glossary of Acronyms and Terms

BOI	Bureau of Investments.
CAO	chief administrative officer.
commingled funds	A term applied to all open-end and closed-end pooled investment vehicles designed for institutional tax-exempt investors. A commingled fund may be organized as a group trust, partnership, corporation, insurance company separate account, or other multiple ownership entity.
cost-effective	Economical in terms of tangible benefits produced by money spent.
custodial bank	A financial institution that has the legal responsibility for managing and safekeeping the customer's securities.
effectiveness	Program success in achieving mission and goals.
IAC	Investment Advisory Committee.
IPP	Investment Protection Principles.
mission	The agency's main purpose or the reason that the agency was established.
MRED	Mortgage and Real Estate Division.
performance audit	An economy and efficiency audit or program audit that is designed to provide an independent assessment of the performance of a governmental entity, program, activity, or function to improve public accountability and to facilitate decision making by parties responsible for overseeing or initiating corrective action.

reportable condition	A matter that, in the auditor's judgment, represents either an opportunity for improvement or a significant deficiency in management's ability to operate a program in an effective and efficient manner.
SEC	U.S. Securities and Exchange Commission.
standard deviation	A measure of the dispersion of a set of data from its mean. In finance, standard deviation is applied to the annual return of an investment to measure the investment's volatility or risk.
State of Michigan retirement systems (SMRS)	Judges' Retirement System, Public School Employees' Retirement System, State Employees' Retirement System, and State Police Retirement System.

