

THE INVESTMENT COMMITTEE
OF THE
MARYLAND STATE RETIREMENT AND PENSION SYSTEM

MINUTES OF OPEN MEETING

September 20, 2022

The Investment Committee convened on Tuesday, September 20, 2022 at 10:22 a.m., via a hybrid video-conference call/in-person meeting with the host site at the Maryland State Retirement Agency, Truist (SunTrust) Building, 120 East Baltimore Street, 16th Floor, Board Room, Baltimore, Maryland.

Committee Members	Linda V. Allen	Richard Norman
Attending:	Michael Barry	Douglas Prouty
	David Brinkley, Vice-Chair	Anne L. Shelton
	James Daley, Jr.	Michael J. Stafford, Jr., Chairman
	Peter Franchot	Monte Tarbox
	Sheila Hill	
Absent:	Dereck Davis	
Also Attending:	Thomas Brandt (Trustee)	Jonathan Martin (Treasurer's liaison)
	Robert Burd, Deputy CIO	Martin Noven, Exec. Director
	Antionette Butcher	Andrew Palmer, CIO
	Rachel Cohen, OAG	David Rongione, Internal Auditing
	Jamaal Craddock (Trustee)	Robert Sandlass, Jr. (Trustee)
	Ken Haines (Trustee)	Toni Voglino
	Justin Hayes	Matthew Wyskiel
	Michael Howard (Trustee)	

Mr. Palmer conducted a roll call to establish a quorum. Vice-Chairman Brinkley called the meeting to order at 9:03 a.m.

Item 1: Motion by the Investment Committee to meet in Closed Session

On a motion made and seconded, the Investment Committee voted without objection to meet in Closed Session at 9:06 a.m. for the purposes of:

- (a) reviewing the closed session Investment Committee minutes, pursuant to General Provisions Art., § 3-103(a)(1)(i), the exercise of an administrative function, and General Provisions Art., § 3-305(b)(13), to comply with a specific statutory requirement that prevents public disclosure, namely, General Provisions Art., § 3-306(c)(3)(ii), requiring that the minutes of a closed session be sealed and not be open to public inspection;
- (b) considering the award of financial incentives for certain employees of the Investment Division, pursuant to General Provisions Art., Section 3-305(b)(1)(i), to discuss the appointment, employment, assignment, promotion, discipline, demotion, compensation, removal, resignation, or performance evaluation of appointees, employees, or officials over whom the Committee has jurisdiction;

- (c) discussing the CIO's performance, pursuant to General Provisions Art., Section 3-305(b)(1)(i), to discuss the appointment, employment, assignment, promotion, discipline, demotion, compensation, removal, resignation, or performance evaluation of appointees, employees, or officials over whom the Committee has jurisdiction;
- (d) considering the award of financial incentives to the CIO pursuant to General Provisions Art., § 3-305(b)(1)(i), to discuss the appointment, employment, assignment, promotion, discipline, demotion, compensation, removal, resignation, or performance evaluation of appointees, employees, or officials over whom the Committee has jurisdiction, and General Provisions Art., § 3-103(a)(1)(i), the exercise of an administrative function;
- (e) considering proposed salary adjustments for employees of the Investment Division, pursuant to General Provisions Art., Section 3-305(b)(1)(i), to discuss the appointment, employment, assignment, promotion, discipline, demotion, compensation, removal, resignation, or performance evaluation of appointees, employees, or officials over whom the Committee has jurisdiction; and
- (f) discussing the use of leverage in a hedge fund in which the System is invested, pursuant to General Provisions Art., §3-305(b)(13), to comply with a specific constitutional, statutory, or judicially imposed requirement that prevents public disclosures about a particular proceeding or matter; namely, General Provisions Art., § 4-335, prohibiting disclosure of confidential commercial information and confidential financial information obtained from any person.

CLOSED SESSION

Committee Members Attending:	Linda V. Allen Michael Barry David Brinkley, Vice-Chair James Daley, Jr. Peter Franchot Sheila Hill	Richard Norman Douglas Prouty Anne L. Shelton Michael J. Stafford, Jr., Chairman Monte Tarbox
Absent:	Dereck Davis	
Also Attending:	Thomas Brandt (Trustee) Robert Burd, Deputy CIO Antionette Butcher Rachel Cohen, OAG Jamaal Craddock (Trustee) Ken Haines (Trustee) Justin Hayes Michael Howard (Trustee)	Jonathan Martin (Treasurer's liaison) Martin Noven, Exec. Director Andrew Palmer, CIO David Rongione, Internal Auditing Robert Sandlass, Jr. (Trustee) Toni Voglino Matthew Wyskiel

Item 8: Motion by Investment Committee to adjourn closed session and return to open session

On a motion made by Ms. Hill and seconded by Mr. Tarbox, the Investment Committee voted to adjourn closed session at 10:21 a.m. and returned to open session at 10:22 a.m.

During closed session, the Investment Committee discussed and took action on the following matters:

The Investment Committee reviewed and ratified the Closed Session minutes from the May 17, 2022 meeting.

The Committee reviewed the calculation methodology for fiscal year 2022 incentive compensation and approved incentive amounts for Investment Division staff.

The Committee reviewed the CIO performance evaluation summaries from senior staff and Investment Committee and Board members.

The Committee reviewed the calculation methodology for fiscal year 2022 incentive compensation and approved incentive amounts for the CIO.

The Committee approved salary adjustments for select legacy employees of the Investment Division.

The Committee reviewed an analysis of the use of leverage within the Absolute Return portfolio and the risk management tools used by managers and staff to monitor leverage.

OPEN SESSION

Committee Members
Attending:

Linda V. Allen
Michael Barry
David Brinkley, Vice-Chair
James Daley, Jr.
Peter Franchot
Sheila Hill

Richard Norman
Douglas Prouty
Anne L. Shelton
Michael J. Stafford, Jr., Chairman
Monte Tarbox

Also Attending:

Sara Al-Moukadem (Wellington)
Phillip Anthony (MLIS)
Brett Asay (Morgan Stanley)
Jihwan Baek
Michael Baker
David Barry (Marketsgroup)
Anish Bedi
Frank Benham (Meketa)
Jonathan Blichar
Thomas Brandt (Trustee)
Robert Burd, Deputy CIO
Antionette Butcher
Alex Butler
Rhett Butler
Teresa (Tea) Carnell, OAG
Katie Cerulle (Mandate Wire)
Rachel Cohen, OAG
Stephanie Spector Cohen (GS)
Melody Countess
Jamaal Craddock (Trustee)
Andrew Cronin (Lenox Park)
Bob Diehl

Faina Kashtelyan
Radhika Iyer (Morgan Stanley)
Faina Kashtelyan
Greg Kasten
Larry Katsafanas
Stuart Kaye
Michael Klos
Ajay Krishnan (Wasatchglobal)
Tom Kurowski (Alex Brown)
Jason Lamin (Lenox Park)
Charles Lee
Melissa Ma (Asia Alternatives)
Dustin McCarty (Wasatchglobal)
Elle Marbach (Lenox Park)
Jonathan Martin (Treasurer's liaison)
Nitin Mathew
Rosa E. Moreno
MSRPS Stream
Mary Mustard (Meketa)
Stephen Muturi
Minh Nguyen
Martin Noven, Exec. Director
Ashu Pal

Cyril Espanol (Journalist from
With.Intelligence)
Mike Fang
David Ferguson
Patricia Fitzhugh
Gregg G. (Peimedia)
Anne Gawthrop
Michael Golden
Dimitri Grechenko
Kenneth Haines (Trustee)
Alex Harisiadis, OAG
John Harris (Meketa)
Justin Hayes
Michael Howard (Trustee)
Angie Jenkins
Dana Johns
Danita Johnson

Andrew Palmer, CIO
Steven Pytlar
Stephen Reilly
Greg Ricci
David Rongione, Internal Auditing
Michael Rubenstein (MLIS)
Robert Sandlass, Jr. (Trustee)
Dan Schick
Megan Schutz
Sofie Sim (GS)
Janet Sirkis
Kevin Slack
Frederick "Beau" Smith
Toni Voglino
Matthew Wyskiel
Jack Wheatley

Item 9: Ratification of Open Session Minutes

On a motion made by Ms. Hill and seconded by Mr. Daly, the Investment Committee ratified the May 17, 2022 open meeting minutes.

Item 10: Investment Committee Roles and Responsibilities

Mr. Palmer noted that, as a reminder, the roles and responsibilities of the Investment Committee are included in the agenda for the Committee's review. He asked if there were any additional questions. Hearing none, the Committee moved on to the next item.

Item 11: Investment Division Fiscal year 2024 Budget

Mr. Palmer explained that the fiscal 2024 budget request incorporates the costs associated with the approval of two new positions, an Investment Accountant and Chief Operations Officer. He noted that there has been a significant amount of growth in the Investment Division over the last several years consistent with the long term strategic plan. He added that the exhibits beginning on page 60 were included to show the evolution of the levels of staffing and resources in the Investment Division and the costs associated with these changes. The start date for this analysis is 2016.

Mr. Burd explained that the budget request is roughly \$22 million, an increase of around 13% relative to the budget that was approved for fiscal year 2023. He added that most of the increase is due to higher costs associated with compensation and benefits as eligible staff, particularly legacy employees who have been subject to the 10% cap on annual salary increases, progress toward the salary range midpoints set by the Board. In addition to the two new positions, the request also includes a new service to assist in the procurement process for a relationship/document management software provider. The new service provider will assist in the transition to a new relationship/document management platform. Mr. Burd also indicated that the fiscal year 2024 budget also includes an increase in legal expenses, as the Investment Division spent more than budgeted in fiscal year 2022 due to a higher number of private market investments.

Mr. Daly asked who the new COO will report to. Mr. Palmer replied that the Investment Division COO will report to the CIO.

Mr. Daly asked why the cost of custodial services increased so dramatically. Mr. Burd responded that the pricing of the System's prior custody contract was very competitive and came to be off-market. Mr. Palmer added that the number of manager relationships had grown significantly since the origin of the prior contract, and as a result the System was paying fees based on a lower-cost investment structure.

On a motion made by Mr. Tarbox and seconded by Mr. Norman, the Investment Committee unanimously approved the estimated budget request for the Investment Division for fiscal year 2024.

Item 12: Report from CIO

Mr. Palmer provided an update on investment performance as of June 30, 2022. He thanked the Investment staff and all those who participate in the investment process. Fiscal year 2022 was a year marked by a number of challenges, a high degree of market volatility and heightened interaction with the General Assembly and Executive branch of State government. He noted that staff was able to manage these challenges and still produce solid relative performance results. In fiscal year 2021, nearly all asset classes generated strong results in a very accommodative market environment. Staff was able to generate historic returns, including very high excess returns. Fiscal year 2022 was very different, and markets were decidedly less friendly. Staff's ability to outperform the policy benchmark by 50 basis points in such difficult circumstances was, in some ways, more rewarding. He thanked all involved for their continued dedication to serve the beneficiaries of the plan.

Mr. Palmer directed the Committee to the chart highlighting the System's performance relative to the objectives included in the Investment Policy Manual. For several quarters this chart has been all green, indicating positive performance relative to all objectives. However, the recent drawdown in markets has resulted in some negative numbers for the one-year period.

Mr. Palmer noted that private assets had a strong year while public markets struggled from an absolute and relative perspective, with much of the poor performance attributable to the last quarter of the fiscal year.

Mr. Palmer stated that staff is monitoring the plan's liquidity and needs to be prepared for distributions slowing and capital calls accelerating. Currently, the plan is roughly in balance, with the exception of Real Assets, where staff expects negative cash flows as the infrastructure portfolio is built out.

Mr. Palmer introduced Rhett Butler from the National Railroad Trust as a recent hire to support the private credit portfolio. He also expects to announce the new Senior Governance Officer within the next few weeks.

Mr. Palmer provided an update on staff's internal management initiative, noting the accomplishments over the last few years and the efforts that are close to completion. Staff expects to continue developing new products and strategies and spend more time deepening skillsets and effectiveness with the goal of moving toward more enhanced passive strategies over time.

Mr. Daly asked when the trading desk is expected to be completed?

Mr. Palmer replied that the desk should be installed in roughly eight weeks.

Mr. Wyskiel asked what is planned regarding OTC derivatives and swaps.

Andrew Palmer responded that staff hopes to use OTC derivatives to improve and enhance the efficiency relating to internal management and hedging strategies. He added that the System's external managers may also be able to trade under these agreements.

Mr. Wyskiel asked if the System's managers will agree to that.

Mr. Palmer noted that the agreements are fairly standardized with the exception of Maryland specific requirements, and that managers will have a strong incentive to cooperate.

Mr. Wyskiel asked if these agreements will be a part of internal management processes.

Mr. Palmer responded that it is likely these instruments will be used in internal management strategies.

Mr. Daly asked about the level of cash at roughly \$900 million and whether this was to pay for monthly benefits payments of \$400 million.

Mr. Palmer replied that the monthly disbursement amount is around \$300 million.

Mr. Daly asked if the current cash level is normal.

Mr. Palmer answered that the current cash amount is higher than usual due to planned redemptions from Absolute Return and expected new investments in Infrastructure that reflect changes to the strategic asset allocation approved in the September 2021 meeting.

Mr. Daly asked what the split is between investment versus disbursement of the current cash.

Mr. Palmer replied that generally \$500 million is reserved for monthly benefit payments.

Mr. Daly asked if the \$400 million difference is cash for investment purposes.

Mr. Palmer replied yes and added that cash allows for flexibility for futures management.

Mr. Palmer discussed the currency hedging slide and noted that this program added roughly \$100 million in value in fiscal year 2022. He added that passive currency hedging can act as a drag to performance when the dollar is weak, but it provides some loss protection when the dollar is strong. The System's currency program is designed to minimize the drag and capture as much protection as possible when the dollar is strong.

Mr. Palmer indicated that staff included a slide deck relating to the outperformance and restructuring of the System's credit portfolio. He encouraged the Committee to contact him with any questions.

Item 13: The Prospects for Investment in China

Melissa Ma of Asia Alternatives Management presented a positive case for investing in China, and Ajay Krishnan of Wasatch Global Investors provided a counterpoint with a skeptical view of investing in China.

Mr. Brinkley asked how China's economic data can be trusted and if there was any regulatory oversight.

Ms. Ma replied that China moved its macroeconomic projections and data to an internationally recognized standard. Numbers are double-checked with underlying assumptions and figures. At the company level, financials are audited by globally recognized accounting firms. Additionally, China recently agreed to adopt western auditing standards for its companies that are listed on U.S. stock exchanges.

Mr. Brinkley asked how we can trust a country that does not allow its currency to float.

Ms. Ma responded that China ultimately wants its currency to float. There exists a controlled currency for a number of social reasons and giving up that lever could lead to unintended social consequences.

Mr. Krishnan agreed with Ms. Ma and confirmed that he is not concerned with the quality of numbers that come out of China.

Mr. Daly asked if Taiwan has similar accounting and regulatory standards as China in terms of supervision of publicly-traded companies.

Ms. Ma confirmed that to be the case.

Mr. Daly asked if China was subject to similar shareholder protections and enforcement as the U.S.

Ms. Ma answered that nothing will ever be identical between China and the U.S. as China has a one-party political system. She added that it is a work-in-progress and moving in a favorable direction.

Mr. Krishnan added that China is winning the largest number of patents. Ten years ago, that was not as important. Now, China is more interested in protecting their own intellectual property.

Mr. Stafford asked what the return expectations were for both Chinese equities and developed foreign equities. He also asked how the risk profile of the two strategies could be characterized.

Mr. Krishnan replied that he does not invest in the developed market but expressed concerns with Europe and how they will emerge from the energy crisis. He added that Japan has suffered from currency weakness but expects Japan to perform well over the next decade.

Mr. Stafford asked what investors would be giving up by not investing in China.

Mr. Krishnan responded that China has underperformed India and Taiwan over the long term. He added that India has high return on capital, strong corporate governance and policy support.

Ms. Shelton added that the correlation between China and the U.S. is another important element to consider.

Ms. Ma noted that correlation depends entirely on portfolio structure. Investing in the broader stock market will cause increased correlation. She expects to be compensated for taking on Chinese risk. In China, depending on the asset class, she expects 400 to 600 basis points over similar assets in the U.S. She added that if China does not deliver 500 basis points over the U.S. private market, then you are not being adequately compensated.

Mr. Benham noted that one of the actuarial firms conducts an annual survey of return expectations. For the 9th consecutive year, emerging markets public equity has the highest expected return. The higher return comes with higher risk and volatility. Correlations to developed stock markets are high and will continue to rise as China becomes a larger component of the global market.

Mr. Sandlass asked what China will look like from an economic perspective when the average age of its population is fifty years.

Mr. Krishnan answered that one of China's objectives is to become a more service-oriented economy. Automation also must be a larger part.

Ms. Ma agreed that China must become more globally integrated and service-oriented.

Item 14: Geographic Diversification

Mr. Benham presented an analysis of the System's geographic exposures. He noted that the size of the System's underweight to the U.S. has grown through strong relative performance over the last several years. He added that the emerging markets benchmark has become increasingly concentrated in China, making China the System's second largest country exposure. Mr. Benham noted that the System has smaller relative exposure to China in other asset classes such as private equity and absolute return. Across the total portfolio, exposure to U.S.-based assets is approximately 70%, while developed market assets comprise 87% of total System assets. Roughly half of the 13% exposure to emerging markets comes from China. Mr. Benham noted that the System is slightly overweight developed markets and underweight emerging markets relative to the policy benchmark. He added that relative to peers, the System has 3% more in emerging markets, with roughly half of the overweight being in China.

Mr. Brinkley noted that the System is subject to a law that requires divestment from Russia and asked if the System held any remaining assets in Russia. He also asked what would happen if China were to do something to Taiwan.

Mr. Benham replied that the System has a small exposure left in Russia, less than .001%. The positions were essentially written to zero. He added that Meketa was analyzing the concept of deglobalization, noting that there has been a long period of globalization. Mr. Benham suggested it might be helpful to use Russia's invasion of Ukraine as an example if China were to invade Taiwan. He indicated that the implications would be more extreme given the size of China's economy and its global reach.

Mr. Howard asked if it was premature to consider trimming the allocation to China based on the potential risk.

Mr. Palmer replied that staff will work with Meketa to determine the portfolio impacts of reducing exposure to China.

Item 15: Meketa Reports

Ms. Mustard provided an update on performance as of June 30, 2022. She noted that while absolute returns were disappointing for the fiscal year, relative performance was positive. She also noted the System's strong performance relative to peers.

Mr. Brinkley asked what the size of the universe was.

Ms. Mustard replied that the number of universe observations was 64. She added that the risk-adjusted performance the Plan, as measured by the Sharpe ratio, was in the top decile for 3, 5, and 10-year periods.

Mr. Palmer asked Ms. Mustard to talk about the performance calculation methods using lagged private market returns.

Ms. Mustard noted that investors want to know their investment returns immediately. With private market valuations there is a lag, and sometimes a significant lag, from quarter-end and the valuation date. She added that the industry standard is to lag the performance to reflect the most recent valuations. She noted that a small number of plans update plan performance when the next valuation is available. If performance was not lagged, investors would have to wait six months to review performance.

Item 16: Draft of Policy Language

Ms. Voglino presented the Committee with draft edits to the Investment Policy Manual to reflect the requirements of the new law relating to climate change and environmental risk. She noted that the System is required to identify renewable energy opportunities, as well as monitor external managers'

move toward sustainability. Lastly, to the extent practical, the System is required to establish a panel of expert advisors regarding environmental risks. She added that staff has already implemented many requirements of the statute.

Mr. Brinkley noted that the sponsor of the bill will likely be the next vice chair of the Board. He also asked if these requirements are unique to Maryland and whether there is an opportunity for an outside firm to supervise this effort as the language will be similar for other pension plans in other states.

Mr. Tarbox asked how much additional work will fall on staff.

Mr. Palmer replied that while other states have similar requirements, Maryland's law is unique. He indicated that staff will have to increase focus on evaluating new investments involved in the transition to alternative energy sources and document these efforts. He added that staff will have to engage more with outside parties.

Mr. Daly asked if the edits and law alter the fiduciary responsibility to the beneficiaries.

Ms. Voglino responded that the Board will still have a fiduciary responsibility to beneficiaries with an additional consideration of climate change as a risk to the portfolio.

Ms. Cohen suggested that questions relating to fiduciary responsibility that may require advice of counsel be discussed in closed session. She added that the law did not alter the fiduciary responsibility with respect to managing assets. Consistent with those duties, the law requires the System to consider environmental impacts of those investments.

Mr. Palmer added that the goal of the law was to provide more clarification and to address requirements more explicitly.

Ms. Voglino explained that the Committee and Board are not being asked to approve the proposed edits, but to review them and provide suggestions and feedback for the November Investment Committee and Board meetings.

Mr. Brinkley asked the Committee to provide feedback to staff by October 31.

Mr. Tarbox asked if there was room in the budget for resources to help comply with these requirements.

Mr. Palmer replied that a new Corporate Governance Manager will be starting soon to assist in this area.

Mr. Palmer noted that some of the requirements of the law are new while others are already incorporated into the investment process.

Mr. Howard asked how the law compares to the System's peers.

Mr. Palmer replied that Maryland's law is more focused on investment in transition opportunities and engagement, while the emphasis in other states is divestment.

Item 17: Lenox Park Report

Ms. Johns introduced Lenox Park as a new service provider to assist staff in more accurately measuring the level of diversity among the System's managers and service providers through comprehensive surveys.

Mr. Lamin of Lenox Park explained that his firm leverages technology and research to aggregate diversity, equity and inclusion impact scores and creates a universe of benchmarks. He added that standardization is key to improving diversity in the investment community. The System's overall diversity score ranks in the 67th percentile in Lenox Park's universe. The response rate was 76%, which is well above the average client response rate. The report provided scoring for representation in ownership, leadership and total firm. The System scored highest in ownership metrics (top quartile), which is consistent with the focus on Terra Maria managers historically. Public asset classes were top quartile and private asset classes were closer to median. Mr. Lamin added that there is tremendous opportunity for the System's managers to integrate diversity through leadership promotions and initiatives. He added that the lack of diversity is increasingly being monitored and examined as a risk signal among peers.

Mr. Tarbox asked if staff plans to conduct this exercise on an annual basis and monitor the changes over time.

Mr. Palmer replied yes.

Item 18: Committee Led Discussion

Nothing discussed.

Item 19: Custodian Contract Extension

Mr. Palmer presented a recommendation memo to extend the System's custodial contract with State Street for one-year effective March 1, 2023 through February 29, 2024.

Mr. Daly asked if the fee during the extension period would remain at roughly \$3 million.

Mr. Palmer responded yes.

On a motion made by Mr. Tarbox and seconded by Mr. Daly, the Committee voted to extend the custody contract with State Street for one year.

Item 20: Investment Reports

The Committee received the following investment reports:

- State Street Performance Reports
- Terra Maria Performance Reports
- TUCS Report
- Private Markets Performance Reports
- Securities Lending Report
- Division's FY23 Travel Plan - Update
- Quarterly ORP Performance Report
- OPEB-PHBT Update
- New Hire Manager Report

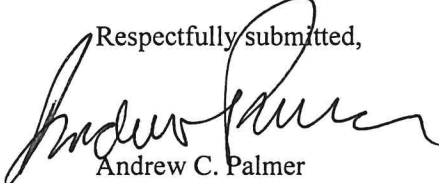
On the Directors Desk:

- Broker Commission Reports
- Quarterly Manager Fee Report

Item 21: Motion by the Investment Committee to adjourn meeting

Adjournment There being no further business before the Investment Committee, on a motion made by Mr. Tarbox and seconded by Mr. Daly, the meeting adjourned at 1:11 p.m.

Respectfully submitted,



Andrew C. Palmer
Chief Investment Officer