THE INVESTMENT COMMITTEE
OF THE
MARYLAND STATE RETIREMENT AND PENSION SYSTEM

MINUTES OF OPEN MEETING

May 17, 2022

The Investment Committee convened on Tuesday, May 17, 2022 at 9:21 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 Attending:	David Brinkley, Vice-Chair James Daley, Jr. Dereck Davis Peter Franchot Sheila Hill	Richard Norman Anne L. Shelton Michael J. Stafford, Jr., Chairman Monte Tarbox
Absent:	Douglas Prouty	
Also Attending:	Laura Atas Thomas Brandt (Trustee) Robert Burd, Deputy CIO Alex Butler Antionette Butcher Teresa (Tea) Carnell, OAG Rachel Cohen, OAG Melody Countess Jamaal Craddock (Trustee) Patricia Fitzhugh	Anne Gawthrop Michael Golden Ken Haines (Trustee) Alex Harisiadis, OAG Justin Hayes Angie Jenkins MSRA Stream Martin Noven, Exec. Director Andrew Palmer, CIO David Rongione, Internal Auditing

Ms. Butcher conducted a roll call to establish a quorum. Chairman Stafford called the meeting to order at 9:21 a.m.

Item 1: Ratification of Open Session Minutes
On a motion made by Ms. Hill and seconded by Mr. Norman, the Investment Committee ratified the February 15, 2022 open meeting minutes.

Item 2: Motion by the Investment Committee to meet in Closed Session
On a motion made by Ms. Hill and seconded by Mr. Daly, Jr., the Investment Committee voted without objection to meet in Closed Session at 9:23 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) interviewing candidates for the position of Public Advisor to the Investment Committee, pursuant to General Provisions Art., Section 3-103(a)(1)(i), the exercise of an administrative

function and General Provisions Art., Section 3-305(b)(1)(i), the appointment, employment, assignment, promotion, discipline, demotion, compensation, removal, resignation, or performance evaluation of appointees, employees, or officials over whom it has jurisdiction;

(c) considering the selection of a candidate for the position of Public Advisor to the Investment Committee, for recommendation to the Board of Trustees, pursuant to General Provisions Art., Section 3-103(a)(1)(i), the exercise of an administrative function and General Provisions Art., Section 3-305(b)(1)(i), the appointment, employment, assignment, promotion, discipline, demotion, compensation, removal, resignation, or performance evaluation of appointees, employees, or officials over whom it has jurisdiction; and

(d) reviewing a confidential schedule of fees and carried interest associated with the System's private market investments, pursuant to General Provisions Art., § 3-305(b)(13), to comply with a specific statutory requirement that prevents public disclosure, namely, General Provisions Art., § 4-335, requiring the denial of inspection of confidential commercial information, confidential financial information, and trade secrets provided by any person to a governmental unit.

CLOSED SESSION

Committee Members Attending:	David Brinkley, Vice-Chair James Daley, Jr. Dereck Davis Peter Franchot Sheila Hill	Richard Norman Anne L. Shelton Michael J. Stafford, Jr., Chairman Monte Tarbox
Also Attending:	Laura Atas Thomas Brandt (Trustee) Robert Burd, Deputy CIO Alex Butler Antionette Butcher Teresa (Tea) Carnell, OAG Rachel Cohen, OAG Melody Countess Jamaal Craddock (Trustee) Patricia Fitzhugh	Anne Gawthrop Michael Golden Ken Haines (Trustee) Alex Harisiadis, OAG Justin Hayes Angie Jenkins Martin Noven, Exec. Director Andrew Palmer, CIO David Rongione, Internal Auditing

Item 7: Motion by Investment Committee to adjourn closed session

On a motion made by Mr. Brinkley and seconded by Ms. Hill, the Investment Committee voted to adjourn closed session at 10:00 a.m. and returned to open session at 10:21 a.m.

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

The Investment Committee reviewed and ratified the Closed Session minutes from the February 15, 2022 meeting.

The Committee interviewed candidates for the position of public advisor and voted to recommend that the Board of Trustees re-appoint Michael Barry to serve as a public advisor of the Investment Committee.

The Committee discussed private investment fund fees and carried interest.

OPEN SESSION

Committee Members Attending:	Michael Barry	Sheila Hill
	David Brinkley, Vice-Chair	Richard Norman
	James Daley, Jr.	Anne L. Shelton
	Dereck Davis	Michael J. Stafford, Jr., Chairman
	Peter Franchot	Lamont Tarbox

Also Attending:	Laura Atas	Greg Kasten
	Jihwan Baek	Larry Katsafanas
	Michael Baker	Stuart Kaye
	Anish Bedi	Michael Klos
	Frank Benham (Meketa)	Ratna Kota
	Jonathan Blichar	Charles Lee
	Colleen Bower	Michael McCord
	Thomas Brandt (Trustee)	Nitin Mathew
	Robert Burd, Deputy CIO	Kyongdo Min
	Antionette Butcher	MSRA Stream
	Alex Butler	Mary Mustard (Meketa)
	Teresa (Tea) Carnell, OAG	Stephen Muturi
	Rachel Cohen, OAG	Minh Nguyen
	Jamaal Craddock (Trustee)	Runya Nie (FIRM)
	Leonardo De Souza	Martin Noven, Exec. Director
	Jessica Espinoza (NFP)	Ashu Pal
	Mike Fang	Andrew Palmer, CIO
	Eric Farls	Ish Parameshwaran (FIRM)
	David Ferguson	Steven Pytlar
	Anne Gawthrop	Stephen Reilly
	Michael Golden	Greg Ricci
	Dimitri Grechenko	David Rongione, Internal Auditing
	Kenneth Haines (Trustee)	Dan Schick
	Alex Harisiadis, OAG	David Sheng (Aksia)
	John Harris (Meketa)	Kevin Slack
	Philip Harris (FIRM)	Frederick "Beau" Smith
	Justin Hayes	Toni Voglino
	Danita Johnson	Jack Wheatley
	Faina Kashtelyan	

Item 8: Fiduciary Responsibility for Climate Risk

Mr. Palmer gave two updates on legislation. The first was related to House Bill 740 - Investment Climate Risk Fiduciary Duties. He explained that the requirements of the bill will be effective on June 1, 2022 and that much of the work is already incorporated into existing staff processes through collaboration with Meketa and proxy voting policies. The System already completes a report of climate risk and posts this on the agency's website. There are some requirements that need to be implemented, such as developing specific metrics and standards to evaluate managers' climate risk policies and creating an advisory panel of experts to assist in analyzing climate risk. Staff will come back to the Board at the September Investment

Committee meeting with potential language for the IPM. He noted that staff is in the process of recruiting a Corporate Governance Manager to focus on climate change and other ESG issues.
Mr. Palmer informed the Committee that another bill regarding divestment of Russian assets went into effect. He informed the Investment Committee that the System does own some publicly traded Russian assets, but they are being valued at close to zero and managers are unable to trade them. He indicated that staff will notify the System's managers of the new legislation and coordinate with them on divestment strategies for when selling is possible.

Ms. Shelton asked if this meant that the System needed to liquidate Russian holdings in co-mingled funds. Mr. Palmer responded that the legislation did not apply to co-mingled funds, but only active strategies held in separate accounts.

Mr. Stafford asked if the valuation of the Russian securities was reflected in the current performance and if the System would be a forced seller. Mr. Palmer confirmed that the value of Russian securities was reflected in performance and responded the legislation required divestment to the extent the System would receive fair value.

Mr. Brinkley asked if the System would be allowed to invest in Russian securities if there was a regime change. Ms. Cohen responded that the bill does have language that triggers an end to divestment if the U.S. government lifts sanctions.

Item 9: Report from CIO

Mr. Palmer presented an update on plan performance. He said that when comparing the annualized performance relative to the IPM objectives, the plan has: outperformed the actuarial rate for each time period; slightly underperformed the policy benchmark over the last year, although beating it for all other time periods; and underperformed the 3% real return for the trailing one year by 160 bps, but outperforming it over all other time periods.

Mr. Daly asked what the actuarial rate was and if the changes in the actuarial rate had been adjusted over time. Mr. Palmer responded that the actuarial rate was 7.2% and the historical numbers were blended. Chairman Stafford requested that the historical actuarial rate be added to the presentation going forward and Mr. Palmer agreed.

Mr. Palmer then covered asset class performance focusing on 3-month and fiscal year to date returns. The public equity portfolio underperformed on a 3-month and 1 year basis by 190 and 245 bps, respectively. A third of the underperformance is due to style differences and two-thirds is from stock selection, both largely concentrated with managers focused on growth stocks. The credit portfolio was down 1.6 percent for the quarter versus the benchmark being down 4.5 percent. Private credit is doing particularly well and is diversifying the portfolio relative to public credit markets. Absolute return will be discussed in detail later in the meeting agenda. This portfolio has generated positive absolute performance in comparison to negative returns in public markets. The System recently changed benchmarks in December 2021 and the new benchmark is outperforming the former benchmark by 150 basis points. Real estate assets continued to show above trend positive returns. The reporting shows meaningful underperformance relative to its benchmark but staff anticipates that this portfolio will be beating its benchmark by up to 100 basis points when the values are trued up versus the benchmark at fiscal year-end. In a prior meeting, there was a question about excess returns for the plan. Generally, the plan has done well and has largely remained above the 40 basis points of expected excess return over longer periods of time.

Mr. Barry asked if the 40 basis points was an implied or stated goal. Mr. Palmer responded that this is a reasonable return target given the System's tracking error expectations.

Mr. Palmer noted that the System has $10 billion in internally managed portfolios and they are performing as expected. The credit portfolio was received in kind with more than 3000 many individual securities, which resulted in higher transaction costs when staff wanted to adjust the portfolio. Staff is working to right size positions and make the portfolio more manageable.

Mr. Palmer added that staff has been working to implement the Aladdin Risk System. Aladdin projects the portfolio's risk to be slightly lower than the benchmark, although the forecasted tracking error in Aladdin is higher.

Mr. Palmer presented the preliminary performance update for April. The plan lost 2.92% of value but exceeded the benchmark. Fiscal year to date through April found the System -0.19% in return, very close to zero.

Chairman Stafford asked where the public equity portfolio stands in terms of the growth versus value tilt. Mr. Palmer and Mr. Katsafanas replied that the overweight to growth was roughly 1% or $600 million relative to 2% at the peak of the overweight. Mr. Palmer explained that, in January, staff trimmed the allocation to growth managers and re-allocated funds to value managers.

Mr. Daly asked if the CIO expects to make any portfolio changes in response to the downward trends in the market. Mr. Palmer responded that typically staff tries to maintain an equity beta of one or slightly higher. This year staff has adjusted equity exposure slightly lower given the heightened risks associated with the Fed tightening and the potential for a recession.

Mr. Daly also asked if Aladdin shows that public markets have higher risk due to recent volatility. Mr. Palmer responded that the Aladdin risk system captures the recent elevated volatility of public markets.

Mr. Daly asked if markets are down, but risk is higher, is that restricting the System's ability to invest and if staff saw mispricing opportunities in the market. Mr. Palmer responded that staff wants to invest when we think the market is cheap, and has the authority and ability to do so but human nature can be challenging and make it difficult to buy when assets are cheap and sell when they are expensive. Staff has established internal processes to help overcome the behavioral aspects.

Mr. Palmer presented a memo that highlighted the System's exposures to various countries across asset classes on an absolute and relative basis. The System had only a third of one percent exposure in Russia before the invasion of Ukraine. The System's largest exposures are in the U.S., China and UK.

Chairman Stafford asked about the exposure to China and if the overall exposure was consistent with peers. Mr. Benham responded that their clients' average 2-4 percent in China and that MSRA was on the high end. This is because China has grown to be such a large portion of emerging markets benchmarks and the System has a larger allocation to emerging market stocks than peers.

Chairman Stafford asked whether others thought that China was investible and whether Meketa thought that China was still investible. Mr. Benham said that it is not just exposure to companies headquartered in China, but all companies that are exposed in the Chinese economy indirectly. There are issues with the Chinese government intervening in the markets to promote social objectives.

Ms. Shelton, Mr. Daly and Mr. Brinkley all agreed that the special risks associated with investing in China should be a topic during a future meeting.

Chairman Stafford suggested that the committee have a deeper discussion of the pros and cons of investing in China at the next meeting.

Item 10: Meketa Reports – Performance update and current market overview
Ms. Mustard updated the Investment Committee on the System's performance. She noted that it was one of the worst performing quarters for the S&P 500 and bond markets and both of these events overlapped. Private equity, real estate, and natural resources & infrastructure were all positive for the quarter. Private credit also performed well. When comparing the System to other public plans over $1 billion, the System performed very well. The System was in the top quartile over the one quarter as well as the 1, 3- and 5-year time periods. On a risk adjusted basis against the same set of peers, the System is in the top 5%. She also showed the System's quarterly and cumulative relative performance for the last decade.
Mr. Brinkley asked if the portfolio is performing as expected. Ms. Mustard replied yes.

Item 11: Meketa Absolute Return Asset Class
Mr. Benham gave a presentation on the different role hedge funds play in institutional portfolios. He focused on the absolute return role of the asset class for the System and how peers position their absolute return portfolios. He went on to explain that the role of the portfolio is to return 4% over the 3-month Treasury bill with a low correlation to equities. He said that the portfolio had met its return objective over the 1- and 3-year time periods but had struggled longer term. A low correlation to equities was not defined, but Mr. Benham suggested that a correlation below 0.4 would be appropriate. The absolute return portfolio's correlation has generally exceeded this and has averaged 0.6. Mr. Benham acknowledged that the goals for the portfolio are inversely related and that to increase returns you would likely have to take on more growth risk, which would likely increase the allocation to equity beta. Mr. Benham continued to state that hedge funds could play one of four or five different roles including absolute return, return generator, risk mitigation or alpha engine / portable alpha. Mr. Benham also presented performance for absolute return portfolios for other state plans but noted that many peers have left the space.

Chairman Stafford asked if there was a particular reason why some peers have left the asset class and if it was because of a particular style. Mr. Benham said that he was not sure, but many have changed the portfolio's role to risk mitigation strategies.

Ms. Shelton asked about Hudson Bay and how it fits in the absolute return portfolio, noting that the fund is market neutral, low correlation, and high returning. She asked how this fund might be categorized given how unique it was. She also commented that recently Fed action has been challenging for hedge funds, but this is not likely to persist going forward.

Mr. Benham replied that he was not familiar enough with the strategy to definitively answer the question at this time. He suggested that a market neutral strategy could likely be used in various ways that go beyond the 4 or 5 buckets he described, and some overlap between them.

Item 12: Absolute Return Review
Mr. Kasten acknowledged that hedge funds have some challenges given that 35% of the returns have historically come from equity beta. He noted that staff's strategy attempts to overcome this issue and provide a relatively consistent return profile while helping diversify total plan assets. Mr. Kasten discussed the current allocation to core funds with stable returns, smaller allocations to niche higher risk strategies and private market strategies. Mr. Kasten also highlighted how the absolute return portfolio had provided protection in market downturns.

Mr. Barry asked about the portfolio's leverage. Mr. Kasten replied that the high level of leverage was being driven by fixed income relative value strategies.

Mr. Barry asked if there were any guardrails with the managers or the portfolio. Mr. Sheng said that managers typically have leverage guidelines that Aksia monitors closely. Mr. Palmer said that the System

has a leverage policy, but not for individual managers other than the restrictions and guidelines in the management agreements.

Mr. Barry commented that he thought that the leverage was high and asked if he could get some additional information on the benchmark's leverage.

Mr. Sheng discussed the new benchmark that was implemented in December 2021. The return objective is still the same, but the benchmark was changed because the former benchmark had a dwindling number of universe observations, which causes bias, and the new benchmark is more in line with the portfolio's current construction.

Mr. Barry asked who proposed changing the benchmark. Mr. Palmer said that it was a collaborative effort between Meketa, Aksia and staff.

Mr. Sheng presented an update on the benchmarks and performance. The former benchmark, which was a fund of fund conservative plus 100 basis points, was changed to a custom weighted benchmark with lower beta and diversifying properties. Reviewing recent activity, he added that Aksia and staff have been sourcing co-investment opportunities. The team also added some stressed and distressed credit strategies. He noted that hedge fund benchmarking is challenging as there is a difference between benchmark targets and return objectives. Risk and return profiles are very different. The return target is cash plus 4 percent, which is a realistic target.

Chairman Stafford asked if Hudson Bay's strategy is representative of the portfolio's overall objective. Mr. Sheng confirmed that was the case. Aksia classifies Hudson Bay as an alpha utility manager and is agnostic to volatility in credit and equities because they hedge all their trades. They are more fundamental than other managers and represent a core position in the absolute return portfolio.

Mr. Sheng noted that the portfolio has performed slightly below or close to HFRI sectors. Manager selection relative to Aksia's peer fund universe has shown similar results. Staff has made good progress to lower manager concentrations and create a more diversified portfolio. The portfolio's equity beta and performance are in line with peers.

Mr. Barry asked about portfolio leverage and risk. Mr. Sheng said that Aksia tracks leverage at a manager level and their diversification of prime brokers. They look at how managers have performed in stressed situations. Overall, they feel comfortable with the portfolio's leverage given the diversification of strategies.

Ms. Shelton asked what the portfolio's leverage would look like if fixed income relative value strategies were taken out. Mr. Kasten said that it would be materially lower. Mr. Sheng added that there are positive tailwinds for absolute return strategies going forward. In rising rate environments hedge funds typically perform well and tend to beat 60/40 portfolios.

Mr. Barry asked if the Investment Committee would like to have another conversation about absolute return in the future. Chairman Stafford agreed that it should be a topic for a future meeting. He stated he thought it a good idea that could be accomplished by adjusting the regular meeting agenda.

Item 13: Optional Retirement Program Review

Mr. Burd introduced Philip Harris, from FIRM, to present recommended changes regarding the Optional Retirement Program (ORP). Mr. Harris said that they had negotiated Fidelity's annual recordkeeper administrative fee from $45/participant to $42/participant and the same fee for TIAA to be reduced from $45/participant to $28/participant.

Ms. Espinoza presented a fund change and three share class changes. In the Fidelity program, the BlackRock Equity Dividend Institutional Fund (MADVX) would be replaced by the Columbia Dividend Income Fund (CDDYX). In the TIAA program, she recommended changing the share class from class R3 to class R4 for the CREF Bond Market Account and the CREF Social Choice Account in the RC contract to take advantage of lower fees. She also recommended a share class change in the Vanguard Total International Stock Market Index Fund from ticker VTSNX to VTPSX to take advantage of lower fees.

On a motion made by Mr. Brinkley and seconded by Mr. Daly, Jr., the Investment Committee unanimously approved the recommendation.

Item 14: Review of the Criteria for the Chief Investment Officer's Evaluation
Chairman Stafford introduced the CIO's evaluation form, which is the same at last year, for approval.

On a motion made by Mr. Daly, Jr. and seconded by Mr. Stafford, the Investment Committee unanimously approved the criteria for the Chief Investment Officer's evaluation.

Item 15: Investment Reports
The Committee received the following investment reports:

- State Street Performance Reports
- Terra Maria Performance Reports
- TUCS Report (EXHIBIT BOOK when available)
- Private Markets Performance Reports
- Securities Lending Report
- Division's FY22 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

Mr. Daly asked Mr. Palmer if he had any undue influence by stakeholders that were trying to influence staff's decision making. Mr. Palmer said that there was no undue influence, but many people do have opinions that we welcome.

Mr. Daly asked Mr. Palmer if he had the resources to be successful in his role as CIO. Mr. Palmer said that the Investment Division was on the right path but might need more staff later.

Mr. Daly asked Mr. Palmer how he would determine success for the internal investment management program and over what timeframe. Mr. Palmer said that he has laid out a framework for analyzing internal management. So far, the System has brought in some passive management and will assess staff's strengths regarding additional strategies to be managed internally.

Item 16: Motion by the Investment Committee to adjourn meeting

Adjournment

There being no further business before the Investment Committee, on a motion made by Mr. Daly and seconded by Ms. Hill, the meeting adjourned at 12:48 p.m.

Respectfully submitted,

Andrew C. Palmer
Chief Investment Officer

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