



Wyoming Legislature Legislative Service Office

October 30, 2024

Benchmarks and Performance
Compensation Operational and Financial
Review/Audit- STO

Table of Contents

→ **Executive Summary and Review of Scope**

→ **1: Methodology Summary**

- a. Timeline of Data Requests
- b. Performance Review Methodology/Summary of Processes

→ **2: Benchmark Review**

- a. Review and Professional Opinion on Benchmark Suitability
- b. Earnings Compared to Performance Compensation Awards

→ **3: Review of Performance and Methodology**

- a. FY2020-FY2023 Performance Review
- b. FY2023 Performance Audit
- c. Investments Outside of Benchmarks Used for Performance Compensation

→ **4: Audit and Opinion on Performance Compensation**

- a. Incentive Compensation Calculation Review
- b. Alternative Approaches to Improve and Recommendations

→ **Appendices**

- a. Project Team
- b. Manager Performance Audit List
- c. Incentive Compensation Calculation Data
- d. Excluded Investments
- e. STO Performance Compensation Plan

Executive Summary and Review of Scope

Background

- Meketa was engaged by the Wyoming Legislature, through the Legislative Services Office, to conduct a one-time review of the performance for the Wyoming State Treasurer's Office ("STO") portfolios, as well as to audit and review the incentive compensation program for the STO Staff.
- This project was requested and completed on a condensed timeline over the last two months (with most data only available for 3 weeks before project delivery), with a focus on ensuring the accuracy of the information utilized in preparing standard performance reports for the organization, as well as in calculating the incentive compensation that is paid to STO employees.
- We have attempted to present our review and findings in a format that aligns with the Scope of Work outlined in the project bid and contract, preceded by an Executive Summary of our work. However, in certain cases, for clarity, items may fall into slightly different order than the scope.
- We appreciate the opportunity to share the work conducted, and our professional opinions with the members of the legislature.

Executive Summary

- Overall, we find that the performance reporting calculations and practices utilized for quarterly reporting, and the incentive compensation program are accurate, and methodologies fall within industry standards.
- We provide opinions and recommendations in several areas, primarily regarding benchmarking and incentive compensation at the overall structural level.
- We received all documents requested from RVK, all requested custodial data, all performance details requested through PARis, full access to the STO Staff as needed, and did not note any deficiencies in the sharing of data.
- Based on our assessment, we do not find any demonstrated likelihood of ability to manipulate outcomes in the reporting of performance data- with the third party consultant responsible for reporting of performance, as well as recommending benchmarks; we feel this risk is reduced to the lowest possible level. From the Staff perspective, we do not find any evidence that calls into question the presentation of any data.

Scope of Work	Observations/Recommendations
1 Methods	1. Meketa Collected Manager Statements from prior 12 months, Custodial Data, and received access directly to the InvestMetrics Platform from RVK. 2. Meketa reviewed Performance across the last 4 fiscal years for reasonability, and audited selected data for the most recent year 3. Meketa created an audit process with randomly selected months and managers, to ensure no systematic over or understatement of individual investments within the reporting process.
2 Benchmark Review	1. Meketa reviewed and corroborated the asset class, and total Fund/Policy Benchmark for the STO portfolios 2. While the Private Equity, and Private Infrastructure benchmarks stood out as somewhat less common; through research and interviews, Meketa learned the private equity benchmark was recently updated, and understands the process for selecting the private infrastructure benchmark. 3. Consider discussing/shifting Private Credit Benchmark as marketplace data has become more robust (Cambridge, etc) 4. Consider Alternatives for Non-Core Real Estate Benchmark. We recommend that STO Staff and SLIB Board have a conversation about the current and future composition of the "Non-Core" real estate asset class, and either re-underwrite the NCREIF ODCE as the benchmark or consider a premium to attach, or alternative benchmarks. 5. Consider Total Fund Benchmark as Opportunistic Asset Class BM, rather than Total Fund Actual.
3 Review of Performance and Methodology	1. Our review of performance found that RVK employs methodologies and best practices consistent with industry standards. 2. RVK utilizes a modified dietz method of calculating cash flows. This differs from Meketa's current practice, but it is extremely common within the industry and accurately reflects portfolio performance in our experience. 3. Meketa was able to corroborate all the data used in performance calculations for the selected managers and time frames.
4 Incentive Compensation Review	1. Meketa reviewed both the calculations of the incentive compensation for STO staff for the last four fiscal years, as well as the source data providing the calculations, and ensured the stated benchmarks were utilized as described, that underlying benchmark and performance data was accurate. 2. Meketa was able to corroborate most of the data points used in the incentive comp methodologies for the selected managers, composites and time frames 3. The different time period methodologies used for calculating average market value and returns between the Total Fund and Assigned Asset Class compensation calculations stood out, through research and interviews Meketa learned the reasoning behind the different methodologies. 4. Meketa believes that Total Fund Performance, rather than a mix of total fund performance and asset class level performance should be considered, and aligns desired outcomes with a collegial staff environment. We would encourage the STO to consider a structure more heavily/entirely weighted toward total fund performance in the future. Also, discuss the "alpha" metric/objective and moving to a 5 year component when a 5 year history is reached.

Section 1

Methodology Summary

1. a Timeline of Data Requests

Timeline of Project Accountability

Date(s) ¹	Description	Notes
July 3	Notification of Award	Received Email from Leg Office
July 10	Project KickOff Call- Meketa Team	Discussed project expectations
July -August	PARis Data Transfer Process Underway	Signed letters from RVK and Meketa, and sign off from Staff to move forward with data transfer for both consulting firms.
July 23	Contract signed	
July 25	Discussion with RVK Senior Staff Re: Project	Set Expectations for Requests
July 29	Initial contact with STO on PARis information sharing request	STO office referred Meketa to RVK consultant for discussion
July 30	Discussion with RVK consultant	Discuss verbiage in data request letter. Set language to ensure data integrity
August 2	Verbiage in PARIS letter (continued)	Received approval from RVK constulant on verbiage to be used
August 5	Received PARis authorization from STO	Dawn Williams sent to Meketa, who forwarded letter to Investment Metrics/PARis
August 12	Email to set up call with RVK Team	Blake Curtis assisted in setting up call with two firms
August 20	Project Update Call- Meketa Team	
August 21	Phone Call with Polly Scott re: Data Transfer	Notified that 1 Year of Manager Statements should be transferred
August 23	Note from Investment Metrics/PARis	Read-only STO PARis data transferred to Meketa
August 30	Video Call with Meketa/RVK/Dawn Williams	Status of Data Requests
August 30	Meketa Project Team Call	Ensure all data was received or in process
September 5	Meketa Project Team Call	Progress Check In
September 5	Call with Spencer Hunter/RVK to Discuss Performance Methodology	Modified Dietz vs. Weighted Average Methodology and GIPS standards discussed
September 10	Meketa Project Team Call	Status Update. Discussion of questions on performance calcs and incentive compensation calcs
September 16	Call with RVK Staff	Discuss Methodology questions, benchmark questions, calculations for incentive comp
September 16	Call with Patrick Fleming, CIO, and Dawn Williams, Asst Treas	Discuss Staff perspective on benchmarking, process.
September 16	Meketa Project Team Call	Working Call, Finalize Data Needs, status update on project deliverable
September 17-18	Emails between RVK/Meketa	Data Clarification, Questions and answers regarding specific findings in each report
September 18	Call with LSO and Meketa	Status update of project, clarified expectations for deliverables and draft review process
September 19	Draft Project Review Submitted	Submitted via email to LSO
September 20-26	Collect/Confirm additional data pieces, email between RVK and Meketa, as well as LSO feedback	Requested and received additional clarity from RVK on incentive comp calculations, received feedback from LSO on project, reviewed and revised draft based on additional data and review.
September 27	Submit Revised Draft to LSO	As promised, second draft of report delivered to LSO via email

¹ This table represents a summary of the emails, calls, and conversations that informed this process. It is not an exhaustive list, as in some cases, dozens of emails took place in single days.

1.b. Performance Review Methodology/Summary of Processes

Methodology Review

Scope Component	Methodology Comments
Review Performance 2019-2023	Received PARis Data directly from vendor, reviewed benchmark rollups and total fund performance (Net of fees).
Audit Performance for FY 2023	Reviewed 28 manager statements in each month of October 2022, January 2023, and June 2024 months, covering every asset class. Net of fees was our focus in this review.
Review and Audit Incentive Comp Calculations for Fiscal 2020,2021, 2022, 2023.	Reviewed RVK provided spreadsheet with incentive compensation detail. Held phone interviews, and had follow up calls and emails regarding the difference in composition between traditional reporting and incentive compensation reporting.
Review Benchmarks and make any recommendations	Meketa reviewed the benchmarks in place at each point in the time periods in question (2019-2023) but also reviewed the current benchmarks- noting, for example, that the Private Equity benchmark was changed after the review period (to a BM Meketa would have recommended).
Review Incentive Compensation program broadly and make any recommendations	Once we confirmed that the calculations for performance incentive compensation were verifiable and accurate, we assessed the marketplace for incentive compensation, and peer systems, along with our own professional experience working with public fund staff across the country.

Section 2

Benchmark Review

2.a. Review and Professional Opinion on Benchmark Suitability

Benchmark Review

- As part of the Project contracted by the Wyoming Legislature, Meketa was tasked to review and provide a professional opinion on the suitability of selected benchmarks and whether the selected benchmarks provide a meaningful comparison to the investments to which they are applied. The benchmarks that are reviewed are taken from the investment policy statements, when there have been changes over the last three fiscal years, it is noted.
- The Wyoming State Treasurer's Office, like many clients, utilizes a Total Fund Policy Benchmark to assess the performance of the total portfolio over time. This benchmark is a weighted average of the underlying pool benchmarks. Within each pool, there is a specific benchmark applied to each asset category.
- This document walks through the Benchmarks selected for each of the asset classes. Not all of the benchmarks reviewed in this section are part of the incentive compensation calculation.
- What is the purpose of a benchmark?
 - To assess both return, and risk.
 - Also, often a tool to measure staff/portfolio success.
- "You cannot Measure what you can't manage"- Peter Drucker.
- Benchmarks are used at many "Levels".
 - Total Plan.
 - Asset Class.
 - Manager.
- This benchmark review for suitability concentrates on the asset class benchmarks that feed into the various pool benchmarks and eventually to the Total Plan Benchmark.

Benchmarking Review Takeaways

- There is no single “right” benchmark for any asset class, nor is there an industry agreed upon standard for the number of asset classes and benchmarks used in reporting. Understanding the process utilized to select the appropriate benchmarks, and assessing whether this was consistently applied, is of utmost importance to the integrity of the process.
 - To that end, we find that the benchmarks utilized in both reporting, and the incentive compensation process, are all within the bounds of reasonability. We do have several areas where we believe RVK, Staff, the IFC and/or the SLIB Board could have more conversation. In those areas, we highlight our professional opinions.
- Post-time period in review, the private equity benchmark was changed to a more standard Cambridge Index. Meketa supports this change.
- Private Infrastructure utilizes a less common benchmark (10 Year US Treasury Yield +350 bps). While this is not common, we do believe it is reasonable and aligns with the goal of selecting a benchmark with less price volatility than a core bond index, and also less inflation volatility than CPI + 350 (which is more common in the industry).
- For Real Estate, we believe a non-core real estate benchmark could be added to the non-core segment of the portfolio, to better align with the underlying investments.
- We found that a collaborative approach to benchmark selection was utilized, with Consultant, Staff, SLIB board and the IFC having the opportunity to review any asset class level changes, and are satisfied that any differing opinions were voiced by various parties, and considered when presenting final recommendations.

Benchmark Criteria

There are two widely accepted schools of thought for determining benchmark criteria.

→ The Bailey Criteria includes six characteristics.

→ The CFA Institute includes five characteristics.

→ The criteria have some overlapping characteristics and concepts, which are shown in-depth on the next slide.

It is critical to understand is that many commonly used benchmarks fail one or more of these tests, and thus the total fund policy benchmark, made up of asset class benchmarks, will never be a perfect comparison for an institutional fund's diversified asset allocation, and any individual asset class benchmark, particularly in private markets, is expected to fail several tests.

Bailey Benchmark Characteristics:

- Unambiguous - The components in a benchmark should be clearly identifiable.
- Investable - It must be possible to replicate and hold the benchmark to earn its return (gross of fees).
- Measurable - It must be possible to measure the benchmark's return on a frequent and timely basis.
- Appropriate - The benchmark must be consistent with the manager's investment style or area of expertise.
- Reflective of current investment options - The manager should be familiar with the securities that constitute the benchmark and their factor exposures.
- Specified in advance - The benchmark must be constructed prior to the evaluation period so that the manager is not judged against benchmarks created after the fact.

CFA Benchmark Characteristics

- Investable – It is possible to forgo active management and simply hold the benchmark. That is, investors can effectively purchase all securities in the benchmark.
- Accessible – Difficult to produce benchmarks should be avoided.
- Transparent – Understanding the underlying constituency of a benchmark is critical to understanding its suitability for a particular manager.
- Independent – A manager's performance should not impact the prescribed benchmark return.
- Relevant – Spurious correlation exists between many random sets of data over various time periods. High correlation or low tracking error to a particular benchmark is not enough to conclude the benchmark is appropriate for a particular manager.

Total Fund Benchmark

- As of 01/01/2020, the Wyoming STO Total Fund Index is calculated using the weighted average of the respective Investment Pools' Target Allocation Indices, as reported in consultant performance reporting.
- We believe a weighted average benchmark represents the industry best practice for total fund benchmarking. Many funds also use a "reference portfolio", or broad market 60/40 or 70/30 benchmark as an additional tool to assess risk and return. There is much current debate in our industry surrounding simplistic (e.g Reference) and complex (e.g Total Policy Weighted) benchmarks.
- The following slide shows the asset class benchmarks that collectively make up the Total Fund Benchmark, and which are used as standalone benchmarks for incentive compensation calculations.
- **Consideration:** Consider consolidating certain asset "Classes". For example, we believe Preferred Stock could be categorized under one of several other asset class categories for simplicity. Likewise, MLPs are commonly put into an Infrastructure category. Within fixed income, there are a variety of sub classes and benchmarks with significant specificity. Benchmarks can be blended if there is a concern about perfect "fit", but we find it somewhat less common to see so many sub categories in an overall policy benchmark.

Total Fund Index as of June 30, 2023 (As listed in IPS)

Asset Class	Market Index (net of fees unless passively managed, managed internally or otherwise indicated)
Broad U.S. Equity	S&P 500 Index
Small-Cap U.S. Equity	Russell 2000 Index
Broad International Equity	Active Management: MSCI ACW Ex US Index (net) Passive Management: MSCI ACW Ex US Ex China Index
Preferred Stock	60% ICE BofAML US IG Inst Capital Securities Index, 20% ICE BofAML Core Fixed Rate Preferred Securities Index, 20% Bloomberg Developed Market USD Contingent Capital Index
Master Limited Partnerships	50% Alerian MLP Index / 50% Alerian Midstream Energy Index
Core Fixed Income	Bloomberg U.S. Aggregate Bond Index
	Bloomberg U.S. Intermediate Aggregate Bond Index
Liability Driven Investment Fixed Income	Custom blend of Bloomberg U.S. Government/Credit: Long Term Bond Index and Bloomberg U.S. Aggregate Bond Index that approximates the liability duration.
Low Duration Fixed Income	Bloomberg U.S. Government: 1-3 Year Bond Index
State Agency Pool Low Duration Fixed Income	25% Bloomberg US Treasury 0-1 Year Index / 75% Bloomberg US Gov't: 1-3 Year Bond Index.
Transition Low Duration Fixed Income	50% JP Morgan CLO Investment Grade / 40% Bloomberg 1-3 Year Credit / 10% ICE BofA ML 0-2 Year HY BB-B Index
Bank Loans	Credit Suisse Leveraged Loan Index
Emerging Markets Debt Fixed Income	1/3 JP Morgan GBI-EM Global Diversified Un-Hedged Index / 1/3 JP Morgan EMBI Global Diversified Index/ 1/3 JP Morgan Corporate Emerging Bond Index (CEMBI) Broad Diversified
Private Credit	Bloomberg U.S. Intermediate Aggregate plus an expected annualized illiquidity premium of 400 basis points
Operational Cash	BofA ML 3 Mo U.S. T-Bill for cash equivalents allocation
Tactical Cash	BofA ML 3 Mo U.S. T-Bill for cash equivalents allocation
Private Equity	Custom Blended Vintage Year Index
Hedge Funds	HFRI Fund of Funds Composite Index (including underlying fund investment manager fees)
Core Real Estate	NCREIF – Open-End Diversified Core Equity Index
Non-Core Real Estate	NCREIF – Open-End Diversified Core Equity Index
Infrastructure	10 Year US Treasury Yield plus an expected annualized premium of 350 basis points
Opportunistic	Total Fund performance excluding opportunistic returns and non-permanent funds, or another benchmark as deemed appropriate by the IFC and approved by the Board.

Total Fund Index as of June 30, 2023 As Reflected in Consultant Performance Reporting

Wyoming State Treasurer's Office Addendum

As of June 30, 2023

Custom Benchmark Comments

The Wyoming State Total Fund Index and Pool Total Fund Indices are calculated using target asset class weights applied to the appropriate asset class benchmark return, using the S&P 500 Index for US all cap equities, the Russell 2000 Index for US small cap equity, MSCI ACW Ex US Index (Net) for international equities, MLP Custom Index for MLPs, Bloomberg US Agg Bond Index for core fixed income, S&P/LSTA Lvg'd Loan 100 Index for bank loans, EMD Blended Benchmark for EMD, NCREIF Open-End Diversified Core Equity Index for real estate, Cambridge Index for private equity, HFRI FOF Comp Index for Diversified Hedge Funds, and ICE BofA Merrill Lynch 90 day US T-Bill rate for cash equivalents.

- The Wyoming State Total Fund Index is calculated using beginning month asset class weights applied to the appropriate asset class benchmark return through 12/31/2019. As of 01/01/2020, the Index is calculated using the weighted average of the respective Investment Funds' Target Allocation Indices.
- Pool Total Fund Indices consist of the actual allocation index through 12/31/2019, and the target allocation index thereafter.
- The All Cap US Equity Custom Index consists of the Russell 3000 Index through 02/29/2020, and the S&P 500 Index thereafter.
- The MLP Custom Index consists of the S&P MLP Index (TR) through 06/30/2019, the Alerian MLP Index through 12/31/2019, and 50% Alerian MLP Index / 50% Alerian Midstream Energy Index thereafter.
- The International Equity Custom Index consists of the MSCI EAFE Index (USD) (Gross) through July 2010 and the MSCI ACW Ex US Index (USD) (Net) thereafter.
- The Preferred Stock Custom Index consists of S&P U.S. Preferred Stock Index through 06/30/2021, and 60% ICE BofAML US IG Inst Capital Securities Index, 20% ICE BofAML Core Fixed Rate Preferred Securities Index, and 20% Bloomberg Barclays Developed Market USD Contingent Capital Index thereafter.
- The Internal Intermediate Govt Fixed Income Portfolio Index currently consists of the Bloomberg US Treasury Index. November 2019 performance consists of the Internal Intermediate Govt Fixed Income Portfolio. Prior to November 2019, the index consists of Bloomberg US Gov't Int Term Bond Index. Prior to December 2009, the index consisted of the Bloomberg US Gov't Crdt Bond Index.
- The PIMCO Custom Index consists of the Bloomberg US Agg Bond Index through February 2018, the Bloomberg US Agg Int Index through June 2019, the Bloomberg US Agg Bond Index through 03/26/2020, account performance from 03/27/2020 through 04/03/2020, the BB US Agg Index through 11/29/21, account performance from 11/29/21 through 12/07/21, the Bloomberg US Agg Bond Index through 06/30/2022, account performance on 7/1/2022, and the Bloomberg US Agg Bond Index thereafter.
- The Low Duration Fixed Income Custom Index consists of the Bloomberg US Gov't Crdt 1-3 Yr Bond Index through 06/30/2019 and the Bloomberg US Gov't 1-3 Yr Bond Index thereafter.
- Transition Fixed Income Custom Index consists of 50% JPM CLOIE IG Idx, 40% BB 1 – 3 Yr Crdt, and 10% ICE BofA 0-2 Yr Dur BB-B Index.
- The State Street All Cap Custom Index consists of 69% Russell 3000 Index, 24% FTSE RAFI US 1000 Index, and 7% MSCI US Min Vol Index (USD) (Gross) through 02/27/2020, State Street All Cap account performance on 02/28/2020, and the S&P 500 Index thereafter.
- The EMD Custom Index consists of the JPM GBI-EM Gbl Dvfd Index through 02/29/2020, 70% JPM GBI-EM Gbl Dvfd Index / 30% JPM CEMBI Brd Dvfd Index thereafter through 11/30/2020, and 1/3 JPM GBI-EM Gbl Dvfd Index, 1/3 JPM CEMBI Brd Dvfd Index, and 1/3 JPM EMBI Gbl Dvfd Index thereafter.
- The JP Morgan EMB (JEMB) Hard Currency/Local Currency 50/50 consists of 50% JPM GBI-EM Gbl Dvfd Index, 25% JPM CEMBI Brd Dvfd Index, and 25% JPM EMBI Gbl Dvfd Index.
- The Goldman Sachs Index consists of JPM CEMBI Brd Dvfd Index through 11/22/2020, account performance from 11/23/2020 through 11/30/2020, and the JPM CEMBI Brd Dvfd Index thereafter.
- The Bank Loans Custom Index consists of S&P LSTA Lvgd Loan Index through 06/30/2021, and the S&P LSTA US Lvgd Loan 100 Index thereafter.
- The Payden & Rygel Custom Index consists of the Bloomberg US Corp Inv Grade Index through 03/25/2020, account performance from 03/26/2020 through 03/31/2020, and Bloomberg US Corp Inv Grade Index thereafter.
- Performance shown for the JP Morgan Cash Composite and the Wyo-Star Cash Composite consists of the respective operating and extended cash accounts.
- The JP Morgan Cash Custom Index is calculated monthly using beginning of the month investment weights applied to each corresponding primary benchmark return. The primary benchmark for JP Morgan Cash is the ICE BofAML 3 Mo US T-Bill Index and for JP Morgan Extd is the JP Morgan Blended Index through 06/30/2019, and the ICE BofAML 3 Mo US T-Bill Index thereafter.
- The Wyo-Star Cash Custom Index is calculated monthly using beginning of the month investment weights applied to each corresponding primary benchmark return. Currently, the primary benchmark for Wyo-Star Cash is the ICE BofAML 3 Mo US T-Bill Index and for Wyo-Star Extd is the JP Morgan Blended Index.

Performance & Holding Comments

RVK, Inc. shows performance beginning with the first full month following inception. Inception date shown for the Int'l Equity and JP Morgan Cash Composites represents the first date of performance calculated by RVK, Inc.

Performance shown for Pooled Funds is calculated on a capital-weighted basis using beginning-period allocations and does not reflect net cash flows.

Performance shown for the UW Portfolio Management Program prior to 07/01/2009 includes their participation in the State Agency Pool. Performance calculated for the UW Portfolio Management Program after 02/01/2013 has not been verified by RVK as the assets have been moved to a platform in which the custodian does not provide a reconcilable return.

Performance for the Internal Intermediate Govt Fixed Income Portfolio excludes distressed securities taken in-kind following the liquidation of WAMCO Core Plus.

Performance shown for the JP Morgan Cash Composite and the Wyo-Star Cash Composite consists of the respective operating and extended cash accounts.

Due to portfolio turnover, buy and hold attribution may not accurately represent quarterly performance relative to the benchmark.

US Equity Benchmarks

Benchmarks: S&P 500 and Russell 2000

The S&P 500 and Russell 2000 benchmarks are market-cap weighted stock market indices that seek to represent the large cap and small cap U.S. stock market, respectively. They measure the performance of the largest 500 and smallest 2000 publicly traded companies.

→ Pros:

- Popular, widely-used benchmarks (especially on institutional side), many passive strategies based on these benchmarks with transparent construction rules.
- No issues with data availability for analysis, data goes back to the 50s (S&P 500) and 80s (Russell 2000).

→ Cons:

- “Reconstitution”, rebalanced only once a year for the Russell 2000. The S&P 500 is reconstituted quarterly.
- While the S&P 500 and Russell 2000 benchmarks cover large and small cap companies, there is no benchmark coverage specifically for mid cap stocks.

→ Suitability: Using these two benchmarks to approximate investments in US Equities is reasonable.

Broad International Equity Benchmarks

Benchmark for Active Management: MSCI ACW Ex-US Index (net)

Benchmark for Passive Management: MSCI ACW Ex-US Ex-China Index (as per IPS)

Later revised to a 50/50 split between the above (2024).

MSCI ACWI ex US is a market-cap weighted stock market index that seeks to represent the broad developed and emerging markets, excluding the U.S.

→ Pros:

- Popular, widely-used index. Passive strategies based on this index with transparent construction rules.
- Captures large and mid cap companies across 22 of 23 Developed Markets countries outside the US and 24 Emerging Markets countries.
- Represents approximately 85% of the global equity opportunity set.

→ Cons:

- Performance reporting not reflecting different benchmarks for active and passive management, though this is not applicable to incentive compensation calculation.

→ Suitability: The MSCI ACW Index ex-US is an appropriate benchmark to apply to public equity holdings domiciled outside the US (both developed and emerging). Less common to see the ex-China component, but if the Board desires to see less exposure to this component of the market, the benchmark facilitates this.

Preferred Stock Benchmark

Current Benchmark: 60% ICE BofA US IG Institutional Capital Securities Index, 20% ICE BofAML Core Fixed Rate Preferred Securities Index, 20% Bloomberg Developed Market USD Contingent Capital Index

The ICE BofA U.S. IG Institutional Capital Securities Index tracks the performance of U.S. dollar denominated investment-grade hybrid capital corporate and preferred securities.

The ICE BofA Core Fixed Rate Preferred Securities Index tracks the performance of fixed rate U.S. dollar-denominated preferred securities.

The Bloomberg Developed Market USD Contingent Capital Index focuses on contingent capital securities, which are a type of hybrid security that can be converted into equity or written down under certain conditions.

→ Pros:

- The combination of these three indexes offers broad coverage of preferred securities, hybrid capital and contingent capital securities.
- This is the preferred benchmark that the sole preferred stock manager, Cohen & Steers, utilizes.

→ Cons:

- Complexity of calculation, not benchmarks the average public would know or be able to reference.
- Benchmark returns provided by preferred stock manager, Cohen & Steers.

→ Suitability: This custom preferred stock benchmark is reasonable for this preferred stock allocation.

Master Limited Partnerships Benchmark

Current Benchmark: 50% Alerian MLP Index / 50% Alerian Midstream Energy Index

The Alerian MLP composed exclusively of Master Limited Partnerships (“MLPs”) that are primarily involved in the transportation, storage, and processing of energy commodities. It includes companies that meet specific market capitalization and liquidity criteria.

The Alerian Midstream Energy Index is broader and includes both MLPs and C-Corporations. It represents the entire North American midstream energy sector, covering companies involved in the transportation, storage, and processing of energy commodities.

→ Pros:

- These two benchmarks together offer a diversified view of the midstream energy sector. The inclusion of C-Corps in the Midstream version can lower volatility of the total combined index.
- The MLP index covers 100% of the MLP it targets, while the Midstream Index covers a significant but not exclusive portion of the market. They have 19 and 28 constituents, respectively.

→ Cons:

- The inclusion of C-Corps might result in a lower overall yield for the index.
- The mix of these two indexes may add unneeded complexity.

→ Suitability: These are reasonable, and standard, indexes to use to benchmark a MLP allocation.

Core Fixed Income Benchmark

Current Benchmark: Bloomberg US Aggregate and Bloomberg US Intermediate Aggregate Bond Index

The Bloomberg suite of indexes are broad market indexes, representing various bond asset classes. They offer broad coverage of marketable, investment grade bonds in the US.

→ Pros:

- Popular, widely-used index, with transparent construction rules. Commonly used by institutional investors.
- The combination of these two benchmarks offers broad coverage of market and short-term duration investment grade securities.
- Characteristics of the STO core fixed income categories roughly mirror the characteristics of these two benchmarks.

→ Cons:

- Some consider the US Aggregate too high in quality and Treasury-focused for a core mandate.

→ Suitability: The Bloomberg US Aggregate benchmarks are suitable for a Core Fixed Income allocation.

Liability Driven Investment Fixed Income Benchmark

Current Benchmark: Custom blend of Bloomberg US Government/Credit: Long Term Bond Index and Bloomberg US Aggregate Bond Index that approximates the liability duration.

The Bloomberg suite of indexes are market cap-weighted indexes, representing various bond asset classes.

→ Pros:

- Popular, widely-used benchmarks, with transparent construction rules.
- Assuming the duration, yield and other characteristics of the Liability-Driven Investment Fixed Income portfolio roughly match the custom benchmarks over time, this is an adequate benchmark to compare performance.

→ Cons:

- No notable cons.

→ Suitability: The custom blend of the Bloomberg benchmarks approximates the maturity and duration profile of the liability driven portfolio and is an appropriate benchmark to utilize.

Low Duration Fixed Income Benchmark

Current Benchmark: Bloomberg US Government: 1-3 Year Bond Index

The Bloomberg US Government 1-3 Year Bond Index includes bonds with maturities between 1 and 3 years.

→ Pros:

- Popular, widely-used index, with transparent construction rules.

→ Cons:

- No notable cons.

→ Suitability: The Bloomberg US Government 1-3 Year Bond Index is well-suited to utilize as a benchmark for a low duration fixed income portfolio.

State Agency Pool Low Duration Fixed Income

Current Benchmark: 25% Bloomberg US Treasury 0-1 Year Index / 75% Bloomberg US Gov't: 1-3 Year Bond Index.

The Bloomberg US Treasury 0-1 Year Index and the Bloomberg US Government 1-3 Year Bond Index are comprised of short-term treasuries with maturities under 1 year, and short-term government securities with maturities between 1 and 3 years, respectively.

→ Pros:

- Popular, widely-used index, with transparent construction rules.

→ Cons:

- No notable cons.

→ Suitability: This custom benchmark is suitable for a Low Duration Fixed Income portfolio.

Transition Low Duration Fixed Income

Current Benchmark: 50% JP Morgan CLO Investment Grade / 40% Bloomberg 1-3 Year Credit / 10% ICE BofA ML 0-2 Year HY BB-B Index

The above custom benchmark includes Collateralized Loan Obligations, Corporate Credit and High Yield bonds, all with short durations.

→ Pros:

- The above custom benchmark includes various short-duration investment grade and credit categories, similar to a money market fund.

→ Cons:

- No notable cons.

→ Suitability: This custom benchmark is suitable for a low duration transition fixed income portfolio with a credit focus, but may be overly complex given the blending of 3 component parts.

Bank Loans Benchmark

Previous Benchmark: S&P/LSTA U.S. Leveraged Loan 100 Index

Current Benchmark: Credit Suisse Leveraged Loan Index (as of June 2023)

→ Pros:

- The Credit Suisse Leveraged Loan index is widely used by institutional investors and Bank Loans managers to benchmark Bank Loans portfolios.
- The index has broad market coverage.

→ Cons:

- Will not exactly match portfolio allocations to different types of credits.
- Not specifically investable.

→ Suitability: The Credit Suisse Leveraged Loan index is appropriate to use as a benchmark for the Bank Loans asset class.

Emerging Market Debt Fixed Income Benchmark

Current Benchmark: 1/3 JP Morgan GBI-EM Global Diversified Un-Hedged Index / 1/3 JP Morgan EMBI Global Diversified Index/ 1/3 JP Morgan Corporate Emerging Bond Index (CEMBI) Broad Diversified

JP Morgan GBI-EM Global Diversified Un-Hedged Index includes local currency government debt.

JP Morgan EMBI Global Diversified Index includes sovereign USD-denominated debt.

JP Morgan Corporate Emerging Bond Index includes corporate USD-denominated debt.

→ Pros:

- The JPM suite of Emerging Markets Debt benchmarks are widely used by institutional investors.
- The custom benchmark includes all types of emerging markets debt, including sovereigns, quasi-sovereigns and corporate bonds.
- The portfolio's allocation to USD-denominated debt is similar to the blended benchmark.

→ Cons:

- Will not exactly match portfolio allocations to different types of bonds due to active management.

→ Suitability: This blend of JPM Emerging Markets debt benchmarks is suitable as a component of the total fund benchmark, and we believe is reasonably widely utilized among peers.

Operational and Tactical Cash Benchmarks

Current Benchmark: BofA ML 3 Mo US T-Bill

→ Pros:

- Widely used by institutional investors and money market fund managers to benchmark cash and cash-like portfolios.
- Used to approximate the performance and yield of short-term treasuries.
- Ease of access , simplicity of calculation.

→ Cons:

- No notable cons.

→ Suitability: The BofA ML 3 Month US T-Bill index is appropriate to use as a benchmark for any cash allocation.

Hedge Fund Benchmark

Current Benchmark: HFRI Fund of Funds Index

→ Pros:

- Popular, widely-used index, suitable for a diversified hedge fund program.
- Includes a very large set of data.
- Data goes back to 1990.

→ Cons:

- Data revisions for up to 4 months after month end.
- Does not accurately reflect the composition of any client portfolio at any given time.
- Peer portfolio, rather than an investable portfolio.
- Hedge Fund portfolios are difficult to benchmark, given fewer restrictions on which asset classes to invest and the opportunistic nature of the asset class.

→ Suitability: The HFRI Fund of Funds index is widely used by institutional investors to benchmark a diversified hedge funds program. We believe it is the most common benchmark for this space. Other options on following include HFRI Macro, or Long Short (when appropriate to each strategy) or a 60/40 type benchmark.

Private Equity Benchmark

Previous: Cambridge Custom Blended Vintage Year Index

Current Benchmark: Cambridge Global All PE (Change approved in June 2024)

→ Pros:

- Benchmark appropriate to managers' portfolios that are diversified across various vintages, strategies and geographies.
- Broad universe of peers that constitutes the benchmark, healthy data set.
- Widely recognized and used.

→ Cons:

- Selection bias in Cambridge Associates Data (only Cambridge clients).
- Not investable.
- Cambridge licensing is now relatively costly.

→ Suitability: The current benchmark, the Cambridge Global ALL PE is perfectly suitable as a benchmark for Private Equity portfolios. It can be costly to license.

→ Alternatives: Public Market plus premium (R3k+300 bps or MSCI ACWI+300), other peer benchmark families (Burgiss, Hamilton Lane Cobalt, Preqin). Challenges with these include alignment of timing (PMP), data lags that are two quarters (Preqin), or less widely utilized (HL, Burgiss).

Private Credit Benchmark

Current Benchmark: Bloomberg US Intermediate Aggregate plus an expected annualized illiquidity premium of 400 basis points

→ Pros:

- Simple in concept and implementation.
- Some form of public market benchmark is increasingly utilized by institutional funds.
- Private Debt program no longer immature.

→ Cons:

- Spread needs to be determined over public markets benchmark.
- Possibility of wide tracking error over short term.
- Not investable.

→ Suitability: Private Credit is difficult to benchmark, but using a public market benchmark plus an illiquidity premium is a common and reasonable approach to benchmark and institutional private credit allocation.

→ **Alternative Recommendation:** As private markets benchmarks providers, such as Cambridge, develop robust data sets, there may be opportunities to select a benchmark that better represents the opportunity set.

Core Real Estate Benchmark

Current Benchmark: NCREIF – Open-End Diversified Core Equity Index

→ Pros:

- NCREIF (National Council of Real Estate Investment Fiduciaries) ODCE (Open-End Diversified Core Equity) benchmark is widely recognized and used. Incorporates a variety of core, private real estate funds to attempt to benchmark income and capital appreciation trends in a variety of property types.
- NCREIF has stringent and transparent rules of inclusion to be part of the composite index, such as: property type, diversification, leverage limits, and US-focused direct investments.

→ Cons:

- Essentially a peer benchmark, not an investable index.
- Will not match monthly composition of STO portfolio.
- Complexity of calculation.

→ Suitability: The NCREIF ODCE index is widely used and perfectly suitable for a portfolio of Core Private Real Estate.

Non-Core Real Estate Benchmark

Current Benchmark: NCREIF – Open-End Diversified Core Equity Index

→ Pros:

- NCREIF (National Council of Real Estate Investment Fiduciaries) ODCE (Open-End Diversified Core Equity) benchmark is widely recognized and used.
- Incorporates a variety of core, private real estate funds to attempt to benchmark income and capital appreciation trends in a variety of property types.
- NCREIF has stringent and transparent rules of inclusion to be part of the composite index.

→ Cons:

- Essentially a peer benchmark, not an investable index.
- Typically, core property types are established properties, nearly fully leased, with stable income/rents. The nomenclature “Non-Core” typically applies to “Value-Added” and “Opportunistic” real estate where there is some element of development or renovation included.
- “Value-Added” and “Opportunistic” funds typically come with higher risk and return expectations versus Core property types.

→ Suitability: The NCREIF ODCE index is not as widely used for a portfolio of Non-Core Private Real Estate. The risk embedded in value-added and opportunistic funds is typically higher than in property types and funds labeled as “Core”. **Recommendation:** Consider adding a value-add component to benchmarking for the non-core portion of real estate portfolio.

Infrastructure Benchmark

Current Benchmark: 10 Year US treasury Yield + an expected annualized premium of 350 basis points

→ Pros:

- Simple, transparent calculation.
- Infrastructure is an asset class typically used for income, diversification and as an inflation hedge. When inflation increases, treasury yields often do as well. Theoretically, they should move in the same direction.
- Yield on 10-Year treasuries are widely available, and the 10-Year Treasury is easily investable.
- More stable path of resulting returns as compared to a benchmark like bond returns plus a premium.

→ Cons:

- Underlying assets in the portfolio and benchmarks are not the same.
- 10-Year Treasury Yield will almost always be positive, where as any investment that accepts risk as a way to achieve a return over the risk-free rate, may have negative returns.
- When yields are high, this could be a difficult benchmark to outperform.
- Not widely used as an infrastructure benchmark.

→ Suitability: The most common method to benchmark an infrastructure allocation in institutional portfolios is to use CPI plus an illiquidity premium given infrastructure's role in a diversified portfolio.

→ There are also infrastructure benchmarks available from providers such as Cambridge (private markets peer composite) or MSCI, FTSE, DJ Brookfield (public markets, where an illiquidity premium is typically added) that could be utilized.

Opportunistic Benchmark

Current Benchmark: Total Fund performance excluding opportunistic returns and non-permanent funds, or another benchmark as deemed appropriate by the IFC and approved by the Board.

→ Pros:

- Typically, an Opportunistic allocation is an asset class without a specific target, and can allow for tactical investments that don't neatly fit into another asset class as specified by the investment policy statement.
- The goal of a tactical investment should be to outperform the total fund, and in this case, using the total fund return as a benchmark is reasonable.

→ Cons:

- Comparing yourself to benchmark totally subject to market movement that may not be relevant to any opportunistic investment.
- Underlying assets will not be the same as a diversified institutional portfolio.
- Complexity of Calculation.
- Market returns are cyclical and it would be unreasonable to assume any investment can outperform the total fund in all environments.

→ Suitability: The total fund's return is appropriate to use for an opportunistic allocation.

→ **Alternative Recommendation:** Using the Total Fund Policy Benchmark would create a simpler methodology.

Summary of Benchmark Changes

- In 2019, there were a number of benchmark changes to the STO portfolio. There have been limited changes since that period.
- It appears that all benchmark changes went through a process with the investment consultant, where Staff and the consultant debated the merits of benchmarks, before presenting them to the SLIB board, and then ultimately requesting approval from the IFC.
- While some of the benchmarks are uncommon in our experience, we do not find that the changes appeared to change the outcomes of the incentive compensation program for the total fund, and there was not persistent changes to benchmarks in any one asset class that led us to view those changes as systematically to be attempting to change financial outcomes.
- In June of 2024 the Private Equity benchmark was adjusted to use to the more common Cambridge All PE benchmark. Meketa is very supportive of this change to a fund that is a) focused on private equity only, and b) is not burdened by having to roll up many underlying vintage funds.

2.b. Earnings Compared to Performance Compensation Awards

Summary of Earnings Compared to Performance Compensation Awards

- At the Total Fund level, The STO portfolios have generated an estimated \$601 million of alpha across the last four fiscal years 2020-2023.
- The total actual payout to Staff, of \$2,857,708, has represented 0.54% of that alpha (well under the max of 2%).
- The max bonus potential over the 4 fiscal years was \$3,108,708, which represents 0.59% of the estimated alpha generated over the period.
- When considering the total payout relative to the broader market value of the STO portfolio (over \$26 billion), the payouts over the last four years represent approximately 1/10th of 1 basis point at the total fund level.
- Given the strong outperformance at the Total Fund level, the half of performance compensation tied to the Total Fund performance has paid out in full for each of the reviewed fiscal years.
- Not all of the asset class specific payouts have occurred in every year, as each year, some asset classes outperform, and some do not.

Section 3

Review of Performance and Methodology

3.a. FY2020-2023 Performance Review

Performance Reporting Standards and Commonly Used Terms

- Performance measurement and return calculations are quite complicated activities that pose many challenges for any organization. Having clearly defined methodologies that follow industry standards is a critical component of performance measurement. In addition, the accuracy of the data cannot be underestimated.
- **Modified Dietz** - For public market managers, while more than one measurement methodology is often available, a common approach is to use a time-weighted rate of return, also called Modified Dietz. A time weighted rate of return neutralizes the impact of cash flows into and out of the portfolio. Both Meketa and RVK use Modified Dietz calculations for public manager returns.
- **Money-weighted returns** - For private market investments, a money-weighted return is a more commonly accepted approach. A money-weighted rate of return is the compound rate of growth given the timing and magnitude of all cash flows over a given period. Both Meketa and RVK use money-weighted returns for all private market investments.
- **Total fund returns** - There are several acceptable methodologies in the industry. One is to roll up using time-weighted returns for the entire portfolio, which is the practice adopted by RVK. Another is to roll up using a weighted average. This uses the beginning market value of each investment, adds the weight of all cash flows into and out of the investment over the period, and applies that weight to the time-weighted return calculation. The two methodologies return results that are immaterially different from each other.

Background

Objectives:

- As part of the Project contracted by the Wyoming Legislature, Meketa was tasked to review the reported investment performance for FY 2020, FY2021, FY2022.
- For the reported performance summary review, Meketa reviewed:
 - Calculation methodologies on investments
 - The methodology on the Total Fund rollup and Asset class rollups
 - Validated that returns were accurately reported in FY end reports
 - Policy and Custom Benchmarks, notably assigned constituents, weights, and return output

Meketa reviewed the following methodologies which are consistent with industry best practices:

- RVK employs a modified dietz performance calculation for public market manager returns
- RVK used a modified dietz rollup of performance returns for asset class level and total fund level returns
- RVK enters an interim market value after every cash flow

Observations:

RVK uses a modified dietz performance calculation to roll up returns to the fund level. Meketa uses a weighted average calculation, that uses beginning market value plus weighted cash flows. While these methods are slightly different, returns are within a few basis points off when tested for several asset class rollups and total fund roll ups. Either method is an acceptable industry practice.

Background (continued)

Observations (continued):

While entering interim market values after every cash flow is not incorrect, it is somewhat unnecessary. Entering an interim market value is usually reserved for use with large cash flows, by which the impact of the large cash flow is mitigated.

Within PARis, the Wyoming State Total Fund Index and plan policy indexes employed by RVK follow an appropriate hybrid model and are aligned with the constituents and weights outlined in the IPS. This is applicable to all monitored periods where revisions occurred. In PARis, Meketa executed a newly constructed performance summary report utilizing the same data and structure carried out by RVK, resulting in virtually identical results to the Annual Investment Performance Analysis. Marginal discrepancies were reconciled with RVK, which were solely due to underlying constituents being updated by PARis' data vendors past the report date. As an example, the following two pages outline performance for Fiscal Year 2023.

Section 3 Review of Performance and Methodology

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Total Fund	26,446,922,883	100.0	1.8	5.0	6.4	5.3	4.8	4.9	4.7	5.3	Oct-96
<i>Wyoming State Total Fund Index</i>			<i>1.4</i>	<i>4.4</i>	<i>5.4</i>	<i>4.6</i>	<i>4.4</i>	<i>4.4</i>	<i>4.5</i>	<i>5.2</i>	
Differences			0.4	0.6	1.0	0.7	0.4	0.5	0.2	0.1	
Permanent Funds	18,637,685,696	70.5	2.4	5.8	7.8	6.9	5.9	6.0	5.7	6.0	Jul-02
Permanent Mineral Trust	10,189,098,036	38.5	3.0	6.8	9.4	8.7	6.6	6.7	6.2	6.2	Jun-01
<i>PMTF - Total Fund Index</i>			<i>2.3</i>	<i>5.6</i>	<i>7.6</i>	<i>7.6</i>	<i>6.0</i>	<i>6.1</i>	<i>5.9</i>	<i>5.5</i>	
Differences			0.7	1.2	1.8	1.1	0.6	0.6	0.3	0.7	
Common School PLF	4,830,651,001	18.3	1.9	4.5	6.5	6.0	5.1	5.6	5.5	6.0	Jun-01
<i>Common School - Total Fund Index</i>			<i>1.9</i>	<i>4.6</i>	<i>6.6</i>	<i>5.3</i>	<i>4.6</i>	<i>5.1</i>	<i>5.2</i>	<i>5.2</i>	
Differences			0.0	-0.1	-0.1	0.7	0.5	0.5	0.3	0.8	
Permanent Land Fund	285,106,143	1.1	3.1	7.0	10.1	8.8	6.8	6.7	6.3	5.7	Feb-06
<i>PLF - Total Fund Index</i>			<i>2.3</i>	<i>5.6</i>	<i>7.6</i>	<i>7.6</i>	<i>6.0</i>	<i>6.1</i>	<i>5.9</i>	<i>5.2</i>	
Differences			0.8	1.4	2.5	1.2	0.8	0.6	0.4	0.5	
University Permanent Land Fund	32,028,774	0.1	2.9	6.6	9.6	9.1	6.8	7.0	6.5	5.7	May-06
<i>University PLF - Total Fund Index</i>			<i>2.3</i>	<i>5.6</i>	<i>7.6</i>	<i>7.6</i>	<i>6.0</i>	<i>6.4</i>	<i>6.2</i>	<i>5.3</i>	
Differences			0.6	1.0	2.0	1.5	0.8	0.6	0.3	0.4	
Hathaway Scholarship	716,449,070	2.7	3.4	7.4	11.0	9.6	7.2	6.8	6.2	5.9	Sep-07
<i>Hathaway - Total Fund Index</i>			<i>2.3</i>	<i>5.6</i>	<i>7.6</i>	<i>7.6</i>	<i>5.9</i>	<i>5.8</i>	<i>5.6</i>	<i>5.4</i>	
Differences			1.1	1.8	3.4	2.0	1.3	1.0	0.6	0.5	
Higher Education	136,632,551	0.5	2.0	4.7	7.2	6.1	4.9	5.2	5.0	5.2	Sep-07
<i>Higher Education - Total Fund Index</i>			<i>1.9</i>	<i>4.6</i>	<i>6.6</i>	<i>5.3</i>	<i>4.6</i>	<i>4.8</i>	<i>4.9</i>	<i>4.9</i>	
Differences			0.1	0.1	0.6	0.8	0.3	0.4	0.1	0.3	
Workers Compensation Fund	2,447,720,120	9.3	0.5	4.1	2.8	1.4	4.3	4.2	4.2	5.1	Jun-01
<i>Workers comp - Total Fund Index</i>			<i>0.3</i>	<i>4.1</i>	<i>2.4</i>	<i>0.8</i>	<i>3.7</i>	<i>3.7</i>	<i>4.0</i>	<i>4.8</i>	
Differences			0.2	0.0	0.4	0.6	0.6	0.5	0.2	0.3	

Section 3 Review of Performance and Methodology

	Market Value \$	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Non-Permanent Funds	8,057,982,743	30.5	0.3	2.6	2.4	0.7	1.9	1.7	2.1	3.4	Jul-02
Pool A	395,958,182	1.5	1.4	4.3	5.1	3.8	4.2	3.4	3.4	4.2	Jan-00
Pool A - Total Fund Index			1.2	3.7	4.5	3.2	3.7	2.7	3.1	4.7	
Differences			0.2	0.6	0.6	0.6	0.5	0.7	0.3	-0.5	
LSRA	1,921,029,044	7.3	1.2	4.6	4.3	2.7	--	--	--	2.4	Jul-19
LSRA - Total Fund Index			0.8	3.9	3.4	2.2	--	--	--	2.1	
Differences			0.4	0.7	0.9	0.5	--	--	--	0.3	
LSRA Long Term Reserve	656,457,040	2.5	4.8	10.7	15.0	12.0	--	--	--	7.2	Jul-19
LSRA Long Term Reserve - Total Fund Index			4.2	9.0	13.8	11.4	--	--	--	7.1	
Differences			0.6	1.7	1.2	0.6	--	--	--	0.1	
LSRA Intermediate Term Reserve	619,145,886	2.3	-0.7	2.4	-0.6	-3.9	--	--	--	-0.8	Aug-19
LSRA Int Term Reserve - Total Fund Index			-0.8	2.1	-0.9	-4.0	--	--	--	-1.0	
Differences			0.1	0.3	0.3	0.1	--	--	--	0.2	
LSRA Short Term Reserve	645,426,117	2.4	-0.4	1.2	0.8	-0.5	--	--	--	0.4	Jan-20
LSRA Short Term Reserve - Total Fund Index			-0.6	1.0	0.2	-1.1	--	--	--	-0.1	
Differences			0.2	0.2	0.6	0.6	--	--	--	0.5	
State Agency Pool	5,740,987,084	21.7	-0.1	1.5	1.5	-0.3	1.4	1.3	1.8	3.4	Jun-01
State Agency Pool - Actual Allocation Index			-0.1	1.5	1.5	-0.3	1.4	1.1	1.8	3.2	
Differences			0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	

3.b. FY 2023 Performance Audit

Background

Objectives:

- As part of the Project contracted by the Wyoming Legislature , Meketa was tasked to audit the investment performance for FY 2023
- The audit of the calculated investment performance for FY 2023 included gathering 12 months of all custodian bank statements and accompanying manager statements from RVK and gaining access to RVK's data on the PARis performance reporting platform.
- Meketa then reconciled the data found in PARis to the custodian bank statements and/or manager statements for the investments and time periods selected, as described below.

Meketa selected the data as follows:

- Data was reviewed for the months of October 2022, January 2023, and June 2023.
- 25% of the managers in the fund were randomly selected, choosing managers in every asset class (see **Appendix B. Manager Performance Audit List** for a full list of selected managers).
- Meketa was able to validate market values, cash flows and returns for each investment selected.

Section 3 Review of Performance and Methodology

Audit Method

The following images show the pieces of **Public Market Manager** data that were validated in this part of the exercise:

- 1) This is a screenshot of the June 2023 data in the PARis reporting platform. RVK enter the market values contributions, distributions and fees. The system then calculates the performance returns.

Clients

Accounts

Returns Audit

Summary Accounting

Edit

Save

Cancel

Refresh

Notes

Print

Export

Custodian Data

Import From Collect

Return Audit

Account Custodian

Recalculate

Lock

Client:

Wyoming State Treasurer's Office

Group:

_WSTO Total Fund (All Plans)

Account:

Van Berkum Small Cap (SA) (5077994 - Atomic)

Date:

6/30/2023

Monthly Cash Flow

Historical Cash Flow

Unitize Accounting - Master Account

Total Fund:

Description	Previous Value	Current Value	Day
> Market Value	217,362,211.13	262,919,291.41	N/A
Interim Market Value	0.00	244,362,211.1...	2.00
Uninvested Cash	-26,130,961.98	-368.16	30.00
Contributions	799,395.87	27,000,000.00	2.00
Distributions	1,620,354.71	577,130.73	15.00
Transfers Out	0.00	0.00	30.00
Transfers In	0.00	0.00	30.00
Expenses	0.00	0.00	30.00
Expense Accruals	0.00	0.00	30.00
Fees	472,065.62	0.00	30.00
Fee Accruals	0.00	0.00	30.00

Returns:

Type	Accounting	Manual	Collect	UE Product	Product	Primary Benchmark	SI IRR
> 6/30/2023 12:00:00 AM							
Gross of Fees	7.8402	7.8300	N/A	N/A	N/A	8.1302	23.7711
Net of Fees	7.8402	7.8300	N/A	N/A	N/A	N/A	N/A
Net of Fees & Expenses	7.8402	N/A	N/A	N/A	N/A	N/A	N/A
5/31/2023 12:00:00 AM							
Gross of Fees	-3.2354	-3.2400	N/A	N/A	N/A	-0.9237	21.5661
Net of Fees	-3.4445	-3.3700	N/A	N/A	N/A	N/A	N/A
Net of Fees & Expenses	-3.4445	N/A	N/A	N/A	N/A	N/A	N/A
4/30/2023 12:00:00 AM							
Gross of Fees	-1.1954	-1.1900	N/A	N/A	N/A	-1.7978	23.3623

Summary Data:

Correction Factor	Total Inflows	Total Outflows	Net Cash Flow - PF	Wei
> -292,275.45	27,000,000.00	577,130.73	26,422,869.27	

Section 3 Review of Performance and Methodology

Audit Method (continued)

- 2) This is a screen shot of the custodian bank statement for the Van Berkum Small Cap Equity approach for the month of June 2023. Meketa verified that RVK entered the correct ending market value for June 30, the contribution and distributions that happened in June, reviewing both the amounts and the dates, and validated that the beginning market value (May 31) is consistent.

FD402 RECONCILIATION OF ASSETS		STATE OF WYOMING - VAN BERKOM		PAGE 3 G 26524 MAY 31, 2023 THROUGH JUNE 30, 2023
		CURRENT PERIOD		YEAR-TO-DATE
		COST	MARKET VALUE	MARKET VALUE
BEGINNING NET ASSETS		192,021,602.87	217,362,211.10	172,489,998.35
RECEIPTS				
CONTRIBUTIONS		0.00	0.00	0.00
OTHER RECEIPTS		27,000,000.00	27,000,000.00	67,482,942.62
EARNED INCOME		200,893.26	200,893.26	2,817,545.86
NET REALIZED GAIN(LOSS)		1,044,921.46	1,044,921.46	6,626,864.26
TOTAL RECEIPTS		28,245,814.72	28,245,814.72	76,927,352.74
DISBURSEMENTS				
BENEFIT PAYMENTS		0.00	0.00	0.00
OTHER DISBURSEMENTS		(577,130.73)	(577,130.73)	(29,594,158.95)
EXPENSES		(368.16)	(368.16)	(1,627,343.92)
TRANSACTION COSTS		0.00	0.00	0.00
TOTAL DISBURSEMENTS		(577,498.89)	(577,498.89)	(31,221,502.87)
NET UNREALIZED GAIN(LOSS) AS OF				
END OF PERIOD	43,229,372.73			
BEGINNING OF YEAR	(1,494,070.48)			
BEGINNING OF PERIOD	25,340,608.23			
CHANGE IN NET UNREALIZED GAIN(LOSS)			17,888,764.50	44,723,443.21
ENDING NET ASSETS		219,689,918.70	262,919,291.43	262,919,291.43

Audit Method (continued)

- 3) Finally, Meketa manually calculated via excel a time-weighted return to validate all the components of the calculation were included to come up with the reported monthly return of 7.84%.

Return Re-calculation					
Account Name:		Van Berkum Small Cap			
Composite:					
Month ending:		June 2023		End of Day	
Timing assumption:		0			
Fees paid externally:		N			
				Meketa's calculation	
				RVK's Return	
				Diff	
Day	Market Value	Cash Flows	Mgmt/Inc Fees	CF %	Subperiod return
30	262,919,291		0.00		7.84%
29					
28					
27					
26					
25					
24					
23					
22					
21					
20					
19					
18					
17					
16					
15		-577,131		-0.2%	
14					
13					
12					
11					
10					
9					
8					
7					
6					
5					
4					
3					
2	244,362,211.00	27,000,000.00		12.4%	0.00%
1					
BMV	217,362,211.00				

Section 3 Review of Performance and Methodology

Private Market Audit Method

The following images show the pieces of **Private Market** data that were validated in this part of the exercise:

- 1) This is a screenshot of the June 2023 data in the PARis reporting platform. RVK enter the the ending market value and validate the beginning market value matches the manager's statement. The system then calculates the performance returns.

Client: Wyoming State Treasurer's Office Group: _WSTO Total Fund (All Plans)

Account: BlackRock Long Term Private Capital SCSp (5077846 - Atom...) Date: 6/30/2023

Monthly Cash Flow Historical Cash Flow Unitize Accounting - Master Account

Total Fund:

Description	Previous Value	Current Value	Day
> Market Value	547,928,235.00	621,054,607.00	N/A
Interim Market Value	0.00	0.00	30.00
Uninvested Cash	0.00	0.00	30.00
Contributions	0.00	0.00	30.00
Distributions	0.00	0.00	30.00
Transfers Out	0.00	0.00	30.00
Transfers In	0.00	0.00	30.00
Expenses	0.00	0.00	30.00
Expense Accruals	0.00	0.00	30.00
Fees	0.00	0.00	30.00
Fee Accruals	0.00	0.00	30.00

Returns:

Type	Accounting	Manual	Collect	UE Product	Product	Pri
6/30/2023 12:00:00 AM						
Gross of Fees	13.3460	13.3460	N/A	N/A	N/A	
Net of Fees	13.3460	13.3460	N/A	N/A	N/A	
Net of Fees & Expenses	13.3460	N/A	N/A	N/A	N/A	
5/31/2023 12:00:00 AM						
Gross of Fees	0.0000	0.0000	N/A	N/A	N/A	
Net of Fees	0.0000	0.0000	N/A	N/A	N/A	
Net of Fees & Expenses	0.0000	N/A	N/A	N/A	N/A	
4/30/2023 12:00:00 AM						
Gross of Fees	0.0000	0.0000	N/A	N/A	N/A	

Summary Data:

Correction Factor	Total Inflows	Total Outflows	Net Cash Flow - PF
0.00	0.00	0.00	0.00

Section 3 Review of Performance and Methodology

Private Market Audit Method

- 2) This is a screen shot of the manager statement for the BlackRock Long Term Private Capital holding. Meketa verified that RVK entered the correct ending market value for June 30, validated there were no capital calls or distributions recorded, and validated the return from the statement matched the return calculated by PARis.

Capital Account Statement

Fund: BlackRock Long Term Private Capital, SCSp

Investor: STATE OF WYOMING

Statement Date: June 30, 2023

Summary of Capital Account

	Quarter to Date	Year to Date
Beginning Capital Account Balance	\$ 547,928,235	\$ 488,423,491
Subscriptions	\$ 0	\$ 0
Redemptions	\$ 0	\$ 0
Distributions / Dividends	\$ 0	\$ 0
Net Capital Activity	\$ 0	\$ 0
Investment Income	\$ 1,355,724	\$ 2,553,406
Operating Expenses	\$ (270,935)	\$ (1,345,772)
Annual Amount ¹	\$ (273,424)	\$ (545,965)
Net Investment Income / (Loss)	\$ 811,365	\$ 661,668
Realized Gain / (Loss)	\$ 83	\$ 87
Change in Unrealized Gain / (Loss)	\$ 80,405,049	\$ 146,622,085
Net Gain / (Loss)	\$ 80,405,132	\$ 146,622,172
Realized Incentive Allocation	\$ 0	\$ 0
Change in Accrued Incentive Allocation	\$ (8,090,124)	\$ (14,652,724)
Ending Capital Account Balance	\$ 621,054,607	\$ 621,054,607

Summary of LTFC Units

	Quarter to Date	Year to Date
Beginning Number of Units ²	420,197	420,197
Subscriptions	0	0
Redemptions	(0)	(0)
Ending Number of Units	420,197	420,197

Ending Units as Percentage of Total Fund Units	6.80%
Ending NAV per Unit ³	\$ 1,478.01

Summary of Performance

	Quarter to Date	Year to Date
Total Return ⁴	13.35%	27.16%

Should you have any questions regarding the above information, please contact BlackRock LTFC Product Strategy at Group.LTFCProductStrategy@blackrock.com.

Past results are not necessarily indicative of future results.

Observations

- Public market manager valuations are used from custodian bank data.
- Private market manager valuations are used from manager statements in most cases and entered in real time. Meketa uses a 3-month lagged valuation and adjusts for cash flows during the period. Both are acceptable industry practices, but using real-time valuations could cause delays in reports, or show a combination of real - time and stale data if all data is not in by the report deliverable date.

3.c. Investments Outside of Benchmarks Used for Performance Compensation

Outside of Benchmark Investments

- The STO portfolio, like other institutions, selects benchmarks that the consultant, Staff, the SLIB Board, and the IFC believe best represent the opportunity set of each asset class.
- Also like other funds, and as shown in our earlier review, benchmarks are not perfect representations of any opportunity set. In many cases, there is flexibility in guidelines, or a mismatch in benchmark, and investments are made that are outside of those benchmarks. This is common.
- There are also instances in every institutional portfolio where benchmarks are used that are not investable. This is true in all private markets asset classes, as well as premiums (i.e. “+200 basis points”) added to a public market proxy. Using something like consumer price index as a basis for a benchmark would fail this test as well.
- The most obvious place where out of benchmark investments are made is within private markets. Particularly within private credit and infrastructure, which use core bond or yield focused indices, but the assets are obviously invested in private sector holdings that will never be represented in the benchmark. This should not cause alarm, as this is part of the “art” of constructing long term portfolios, and measuring them. Over long time periods, we assess success or failure of these investments hopefully relative to peer groups. We do believe that private credit benchmarks through organizations such as Cambridge, have improved, and may be suitable to consider going forward.
- In many cases, we find that benchmarks are very carefully blended to ensure as close to a perfect fit as possible. It is worth considering the pros and cons of blended benchmarks.

Section 3 Review of Performance and Methodology

Excluded Funds Summary

FY 2020 (7/31/2019 - 6/30/2020)	FY 2021 (7/31/2020 - 6/30/2021)	FY 2022 (7/31/2021 - 6/30/2022)	FY 2023 (7/31/2022 - 6/30/2023)
Grosvenor SLF	Grosvenor SLF	Grosvenor SLF	Grosvenor SLF
JP Morgan Extd	JP Morgan Extd	JP Morgan Extd	JP Morgan Extd
Cheyenne Equity	Cheyenne Equity	Cheyenne Equity	Cheyenne Equity
Access Venture	Access Venture	Access Venture	Access Venture
Hamilton Lane	Hamilton Lane	Hamilton Lane	Hamilton Lane
Neuberger Sauger	Neuberger Sauger	Neuberger Sauger	Neuberger Sauger
Cornerstone	Cornerstone	Cornerstone	Cornerstone
WestRiver	WestRiver	WestRiver	WestRiver
TA Associates Realty	TA Associates Realty	TA Associates Realty	TA Associates Realty
Heitman Value Partners	Heitman Value Partners	Heitman Value Partners	Heitman Value Partners
Northwood Series IV	Northwood Series IV	Northwood Series IV	Northwood Series IV
M&G III	M&G III	M&G III	M&G III
PAAMCO - Jackalope	PAAMCO - Jackalope	PAAMCO - Jackalope	PAAMCO - Jackalope
Internal Ladder*	Internal Ladder	Internal Ladder	Internal Ladder
			UW Portfolio Mgmt Prog
*Internal Ladder - Account excluded starting August 2019 (account inception)			

→ Excluded Funds accounted for roughly \$6-\$7B of Total Fund assets, primarily in the 'JP Morgan Extd' and 'Internal Ladder' accounts.

→ Account 'UW Portfolio Mgmt Prog' was included in the PCP prior to FY 2023.

Section 3 Review of Performance and Methodology

Portfolio/Benchmark Return Comparisons – Total Fund & Performance Compensation Plan (“PCP”)

	Total Fund	1 Yr Returns(%)					Notes
		Total Fund Index	Δ%	PCP	PCP Index	Δ%	
FY 2020	2.9	2.6	0.3	2.8	2.3	0.5	Portfolio performance relatively close between Total Fund & PCP. PCP benchmark marginally underperformed relative to Total Fund Index.
FY 2021	14.9	14.7	0.2	17.3	17.0	0.3	PCP portfolio & benchmark both meaningfully outpaced their Total Fund counterparts by relative margins
FY 2022	-4.7	-5.4	0.7	-5.4	-6.2	0.8	PCP portfolio & benchmark both meaningfully trailed their Total Fund counterparts by relative margins
FY 2023*	6.4	5.4	1.0	7.8	6.0	1.8	PCP portfolio & benchmark both meaningfully outpaced their Total Fund counterparts, with the portfolio outpacing at a greater margin than the benchmark

→ We note that, although the Incentive Compensation Program utilizes its own benchmark and return stream, given its excluded investments, even if the program utilized standard reporting (shown on the left of the table), the portfolio outperformed its Benchmark over each of the 4 years reviewed, and employees would have been eligible for their payout under either model.

Section 4

Audit and Opinion on Performance Compensation

4.a. Incentive Compensation Calculation Review

Overview

Objectives:

- As part of the Project contracted by the Wyoming Legislature , Meketa was tasked to review the performance compensation for Fiscal Years 2020-2023.
- The performance compensation review included gathering each year's compensation review memo for the FY 2020 period through the FY 2023 period, as well as the Performance Compensation Model excel files as provided by Wyoming State Treasury, and the Performance Comp Calculation sheets from RVK. We also gained access to RVK's data on the PARis performance reporting platform.
- Meketa then reconciled the performance compensation model inputs to the performance returns available in PARis.

Meketa selected the data as follows:

- For the Total Fund performance compensation calculation, Data was reviewed for Fiscal Years 2020- 2023. For the Assigned Asset Class performance compensation calculation various composites were reviewed between FY 2020-2023.
- At least one Assigned Asset Class was reviewed in each of the Fiscal Years.
- Meketa was able to validate returns and total compensation calculations for each composite reviewed. For market values, the Total Fund level average market value calculations were corroborated based on the data available in PARis. At the Asset Class level, while the data in PARis matched in nearer periods observed, were not able to be matched exactly in older periods observed for asset classes, though our calculated values were close relative to those used in the Performance Comp Calculations. The variances were reviewed with RVK and appears to be an issue with cash flows rolling up to the asset class composites, rather than at the account level which was Meketa's scope of review. The review methodology process is described in following sections.

Overview (continued)

Observations:

- At both the Total Fund and the underlying asset class levels, the fund and benchmark performance were corroborated as presented in the Performance Compensation materials, using the data made available in PARis for the time periods and composites observed.
- Meketa reviewed the estimated alpha calculation, performance compensation thresholds (for both max eligible payout and payout earned) and confirmed the methodologies used in the STO Performance Compensation were reasonable and sound and aligned with statute, based on our reading and understanding.
- As noted above, the methodology used for time periods within the fiscal years differ between the Total Fund and the Assigned Asset Class compensation calculations. The Total Fund uses 5 “irregular periods” that correspond to the pre-determined rebalancing points for the Total Fund, whereas the Assigned Asset Class uses 12 periods, one for each month. Furthermore, the market value methodology differs between the two, as the Total Fund uses prior month MV, whereas the Assigned Asset Class uses prior month MV adjusted for weighted net cash flows.
- In the alpha calculation and subsequent performance compensation calculations, the estimated alpha for the Total Fund is calculated as a product of the 1-year total fund outperformance (relative to benchmark) multiplied by the average market value (calculated as an average of the 5 “irregular periods” noted above). The estimated alpha for the Assigned Asset Class is calculated as a sum of the monthly alpha calculated as relative to benchmark performance multiplied by the period market value (calculated as prior month MV adjusted for weighted net cash flows).

Overview (continued)

Observations:

- In our review, we were able to corroborate the market values (and subsequent average market value) calculations at the Total Fund Level. As for the Assigned Asset Class market value calculations, there were some challenges in verifying the market values. The market values used in the Performance Compensation Model calculations differ from the composite level data available in PARis. This is in part due to the market value calculation methodology. The market values in PARis rely on the account level assignments to each composite – for example, if ABC fund was added to the US Equity composite in June 2020, it will not aggregate to that composite until June 2020. Thus, when the Asset Class market value calculation methods are applied, the previous month MV used as a base (May 2020) does not include this fund. However in the STO performance compensation calculations, market values are manually adjusted to include this fund in the June 2020 MV calculations.
- After discussion with RVK and understanding the intent behind the different period structures between the Total Fund level and Assigned Asset Class level calculations, Meketa came to the conclusion that the methodologies applied were reasonable and sound.
- Given the challenges of corroborating the market values at the composite level as noted above, Meketa chose to review selected market values for each composite at the account level. In our review, in the nearer term the market values calculated using values available in PARis matched the values as provided in the Compensation modeling sheets, with exception to one month for one account. In longer dated fiscal years reviewed, Meketa noted that for the accounts reviewed there were consistent discrepancies between calculated market values using data available today in PARis vs. values as provided in the Compensation modeling sheets.

Section 4 Audit and Opinion on Performance Compensation

Observations:

→ Meketa reviewed the abovementioned discrepancies with RVK and learned that in some accounts, the weighted net cash flows in question were being rolled up in the composite level, while not populating in PARis at the account level. As such, between the challenges of using the composite MVs + CFs (related to timing of accounts being added/removed from composites) and the account level MVs + CFs (related to some weighted net CFs rolling up to the composite level), Meketa was able to calculate sub-composite totals that while close did not match the values used in the Performance Compensation Model. Meketa notes that in the composites reviewed, between the market value calculated formulaically from PARis and the values in the Compensation Model were relatively close (average market values calculated were within +/- 1.5% for sub-asset class composites reviewed) and did not in our opinion, impact the payout earned. Following are excerpts from the review process to recreate the Sub-composite totals (from the Performance Compensation Model excel files) using account level Market Values and Cash Flows in PARis:

Please see **Appendix C. Incentive Compensation Calculation Data.** for additional screen shots supporting the Incentive Compensation Calculation Review.

4.b. Alternative Approaches to Improve Performance Compensation and Recommendations

Section 4 Audit and Opinion on Performance Compensation

Comparative Assessment of Various Incentive Compensation Methods

	Strengths	Weaknesses
No Incentive Compensation/Peer Index Approach	Simplicity. Index approach can reflect peer levels. Eliminates many of the weaknesses attributed to other methods. Clear and easy to communicate	Turnover and employee satisfaction issues. Makes hiring away from private sector more challenging. Timeframe for implementing change to account for current incentive method creates complexity.
Asset Class-Based Incentive-Driven	Aligns direct contributions to incentive earned. Focuses employee efforts on areas of most skill.	Can reduce cross pollination of ideas and work. Goal of overall program is to have entire fund outperform; opportunity set varies. Natural cyclical of performance cycle by asset class- can create incentive disparities. Complexity of individual asset class benchmarks.
Total Fund-Based Incentive Compensation	Simplicity. Everyone working for same team, incentivized as a group	Change can be difficult to accept/ communicate. Difficult to differentiate rewards if employees contribute to specific asset classes.

Performance Compensation Observations

- This is a challenging area to benchmark to peers.
- Based on our review, the formation of the incentive compensation program has resulted in strong stability in the investment team, and total fund performance has been strong during the periods under review. This would support that the program has been a success on several levels.
- The current structure, which blends total fund performance and asset class performance, is commonly found among large public pension funds, and has a reasonable methodology, which we were able to validate.
- The removal of certain asset class investments from the calculation does make this process more challenging, less transparent, and, in a perfect world, the traditional performance reporting utilized would be the reference point, without adjustments to time periods, or included or excluded investments. However, based on our understanding, the reasons for their exclusion are based on either statutory limitations, or a reasonable assessment that current Staff were not able to control the decisions made on those investments. We see similar reasoning in the marketplace for funds that, for example, are required to divest of certain types of securities.
- In our professional assessment, when evaluating the success of an investment team, Total Fund Benchmarking is the most preferable approach, and we believe that a qualitative component could replace an asset class level benchmark, if there is intent to reward specific and meaningful contributions, particular when performance is suffering a cyclical downturn. That said, we note that many Funds utilize asset class level performance in their calculations.

Performance Compensation Observations (continued)

- One area that we do not find common, is in the calculation of a percentage of alpha used to determine a max payout. We note this only “works” given the considerable asset base of the two plans in the State of Wyoming. It is more common, in our professional opinion, to see a total fund policy benchmark, with a premium that reflects the level of risk/return desired within the portfolio. E.g; Total Policy Benchmark +50 basis points. Sometimes, a ladder approach is used to pay out proportionally for returns above benchmark, but below the target.
- Some of the reasons for our preference for Total Fund performance, is the benefit of having employees work on multiple asset classes, or move asset classes based on needs, without concern for how it will impact compensation.
- However, we highlight again the prevalence of asset class based compensation, and note that any time significant changes are made to an incentive program, it introduces new challenges (linking two different approaches, etc), and any adjustments should be undertaken with caution.
- **Recommendation:** Now that the program has been running for 4 years, we would also encourage consideration around utilizing a longer term performance metric of 5 years into future calculations. We frequently see a total fund benchmark with a portion allocated to 3 and 5 year periods, to reward strong long-term results.

Appendices

a. Project Team

Project Team Biographies

Mika L. Malone, CAIA – Managing Principal/Consultant

Ms. Malone joined Meketa in 2003. She currently works as the lead consultant for a select number of clients on their Defined Benefit, Endowment, and Defined Contribution portfolios. Ms. Malone is a member of Meketa's Board of Directors, the Investment Policy and Corporate Responsibility Committees, and Pension Practice Group. She is passionate about helping clients achieve their asset allocation, policy, and governance goals.

Prior to joining Meketa, Ms. Malone was employed in the Treasury department for Clark Construction, Inc. Ms. Malone received an MBA from the University of San Diego, with a concentration in finance, and an undergraduate degree in English, with honors, from the University of Maryland.

Ms. Malone volunteers with multiple organizations in the Portland area, including sitting as a Board member for the Women's Foundation of Oregon, as well as at Portland Women in Investment Management. Outside the office, she is a competitive rider at hunter/jumper horse shows, enjoys running and spending time traveling and biking with her two daughters and husband.

In addition to her extracurricular activities, she is an active speaker at investment industry conferences. Ms. Malone holds the Chartered Alternative Investment Analyst (CAIA) designation and is a member of the CAIA Association®.

Nick Erickson, CFA, CAIA – Managing Principal/Consultant

Mr. Erickson joined Meketa in 2013 and has over 20 years of investment industry experience. He works with various defined benefit and health & welfare funds, with Taft-Hartley, non-profit, and public plan sponsors. His work includes assisting with the development of asset allocation and investment policies, as well as providing oversight of client portfolios.

Prior to joining the firm, Mr. Erickson was employed by Brandes Investment Partners, an investment manager concentrating on value investing. While at Brandes, Mr. Erickson gained valuable experience in many aspects of institutional investing, including operations, client service and portfolio management. In addition, he served as the primary researcher for the thought leadership and think tank division of the firm.

He received a Bachelor of Science degree in management science and a minor in music humanities from the University of California, San Diego. Mr. Erickson holds the Chartered Financial Analyst® designation, and is a member of the CFA Society San Diego and the CFA Institute. He also holds the Chartered Alternative Investment Analyst (CAIA) designation, and is a member of the CAIA Association®.

Presenter Biographies

Susan S. Brumbaugh – Managing Principal/Manager of Consulting Analytics

Ms. Brumbaugh joined Meketa in 2018 and has been in the investment industry since 1999. She is the manager of consulting analytics, which includes oversight of investment analytics & performance reporting for the firm's General Consulting, Private Market, and OCIO clients. Ms. Brumbaugh is also the Founder and Co-Chair of the firm's Women @Meketa employee resource group and a member of the Corporate Responsibility Committee.

Ms. Brumbaugh spent the majority of her career as a manager of client & prospect communications at Wellington Management Company where she was responsible for global investment reporting for the firm and had a focus on establishing operational efficiency & process improvement initiatives. Prior to that, she was the manager of investment operations at John Hancock Funds.

Ms. Brumbaugh earned a bachelor's degree in finance and French from the University of Massachusetts, Dartmouth in 1990.

Inwoo Hwang – Investment Analyst

Mr. Hwang joined Meketa in 2021 and has been in the investment industry for 5 years. He serves as an investment analyst working with various Taft-Hartley, non-profit, and public plan sponsors. His responsibilities include oversight of client deliverables and assisting consultants in engaging external vendors on behalf of clients. Mr. Hwang is also a member of Meketa's Corporate Responsibility Committee.

Prior to joining the firm, Mr. Hwang was an investment research associate at Stephens Wealth Management Group and a financial analyst in Eaton Corporation's Leadership Development Program.

He received his bachelor's degree from Michigan State University with a concentration in finance.

Additional Team Member Biographies

Alex Khorsandian – Vice President/Supervisor of Performance Analytics

Mr. Khorsandian joined Meketa in 2019. As supervisor of performance analytics, he oversees investment analytics and performance reporting for Meketa's General Consulting, Private Markets, and OCIO Clients. Mr. Khorsandian is a member of the Global Macroeconomic Investment Committee, and contributes to public markets manager monitoring for Meketa's Fiduciary Management (OCIO) Investment Committee.

He graduated from the University of San Diego with a double major in finance and real estate, and a minor in business administration.

Henry Lopez – Performance Analyst Team Lead

Mr. Lopez joined Meketa in 2020. A performance analyst team lead, his responsibilities include client reporting, performance calculation, and ad-hoc risk analysis, in addition to the guidance and development of other performance analysts on the team. Mr. Lopez graduated from the University of California, Santa Cruz, with a combined BA in economics and mathematics. He is currently enrolled in the CFA Program as a Level II candidate.

Owen Lingenfelder – Senior Performance Analyst

Mr. Lingenfelder joined Meketa in 2022 as a performance analyst on the general consulting team. His responsibilities include client reporting, performance calculation, and ad-hoc risk analysis. Mr. Lingenfelder attended University of California San Diego, where he received a BA in international studies - international business and a minor in real estate and development. In addition, he has completed Level I of the CFA Program.

b. Manager Performance Audit List

Managers Chosen for Performance Audit

- US Equity
 - State Street All Cap
 - Van Beroom
 - Wyoming Internal Small Cap
- International Equity
 - NT ACWI ex US
 - Harding Loevner
 - Arrostree
- Hybrid/Mixed Assets (bottom of plan structure)
 - Harvest Fund Advisers
- Private Equity
 - BlackRock LTPC
 - Stepstone V
 - Accel KKR Growth IV
- Private Equity (continued)
 - Veritas Capital VIII
- Real Estate
 - Clarion Lion
 - Morgan Stanley Prime
 - UBS Trumbull
- Hedge Funds/Absolute Returns
 - Grosvenor Silvery Lupine Fund Class C
- Infrastructure
 - Macquarie

Managers Chosen for Performance Audit (continued)

→ Fixed Income

- PIMCO Core
- Payden & Rygel
- JPM MBS

→ Fixed Income

- Octagon SMA
- Wyoming Internal Fixed Income Portfolio (Internal)
- KKR
- PIMCO Transition Low Duration
- Wyoming Internal SAP Fixed Income Portfolio
- Private Credit
- BlackRock GCO II
- Atalaya

→ Opportunistic

- Grosvenor Silvery Lupine Fund Class D

→ Cash Equivalents

c. Incentive Compensation Calculation Data

FY 2020 – Core Income

Account	Account #	Date MV	PARis Prior MV + Net CF	Prior MV + Wt Net CF	Returns	PCP MV	Check vs Net CF	Checks vs Wt Net CF	Returns
PIMCO Core	5041024	7/31/2019	2,227,897,309.95	2,230,702,301.88	0.368	\$2,227,897,310.00	\$(0.05)	\$ 2,804,991.88	0.37
		8/31/2019	2,232,916,655.91	2,235,985,331.10	2.7863	\$2,318,520,169.17	\$ (85,603,513.26)	\$ (82,534,838.07)	2.79
		9/30/2019	2,283,095,854.45	2,294,006,278.20	-0.5843	\$2,239,972,390.71	\$43,123,463.74	\$54,033,887.49	-0.58
		10/31/2019	2,262,213,055.18	2,269,450,357.81	0.2731	\$2,269,450,357.58	\$(7,237,302.40)	\$0.23	0.27
		11/30/2019	2,266,088,493.10	2,268,023,600.47	-0.1112	\$2,268,023,600.47	\$(1,935,107.37)	\$ -	-0.11
		12/31/2019	2,258,692,727.82	2,263,410,226.08	-0.2364	\$2,263,410,226.06	\$(4,717,498.24)	\$0.02	-0.24
		1/31/2020	2,242,006,070.40	2,252,977,268.17	2.2674	\$2,252,977,268.41	\$ (10,971,198.01)	\$(0.24)	2.27
		2/29/2020	2,285,682,513.01	2,292,538,265.28	1.8072	\$2,292,538,265.48	\$(6,855,752.47)	\$(0.20)	1.81
		3/31/2020	2,091,774,345.45	2,327,112,142.63	-1.3382	\$2,318,520,169.17	\$(226,745,823.72)	\$ 8,591,973.46	-1.60
		4/30/2020	2,040,033,950.85	2,054,228,219.31	2.1101	\$2,054,228,219.61	\$ (14,194,268.76)	\$(0.30)	2.11
		5/31/2020	2,224,887,617.70	2,083,379,329.47	0.6696	\$2,090,275,184.78	\$ 134,612,432.92	\$(6,895,855.31)	0.84
		6/30/2020	2,235,595,391.74	2,242,506,443.43	1.1272	\$2,239,972,390.71	\$(4,376,998.97)	\$ 2,534,052.72	1.15
			2,220,906,998.80	2,234,526,646.99		2,236,315,462.68			
JPM	5077992	7/31/2019	-	-			\$ -	\$ -	
		8/31/2019	-	-			\$ -	\$ -	
		9/30/2019	-	-			\$ -	\$ -	
		10/31/2019	733,000,000.00	733,000,000.00	0.1043	\$ 709,354,838.71	\$23,645,161.29	\$23,645,161.29	0.11
		11/30/2019	733,917,532.95	733,764,232.54	0.0091	\$ 733,764,232.54	\$153,300.41	\$ -	0.01
		12/31/2019	731,988,583.91	733,984,331.99	0.1562	\$ 733,984,332.00	\$(1,995,748.09)	\$(0.01)	0.16
		1/31/2020	731,200,255.98	733,072,556.15	1.2523	\$ 733,072,555.99	\$(1,872,300.01)	\$0.16	1.25
		2/29/2020	738,444,045.99	740,235,903.08	1.2646	\$ 740,235,902.92	\$(1,791,856.93)	\$0.16	1.26
		3/31/2020	745,767,233.15	747,542,307.28	0.3175	\$ 747,542,307.06	\$(1,775,073.91)	\$0.22	0.32
		4/30/2020	745,792,448.56	747,984,323.41	0.9055	\$ 747,984,323.51	\$(2,191,874.95)	\$(0.10)	0.91
		5/31/2020	805,191,684.82	805,463,702.45	0.3669	\$ 805,463,702.62	\$ (272,017.80)	\$(0.17)	0.37
		6/30/2020	806,243,013.82	807,385,327.99	0.1485	\$ 807,385,328.22	\$(1,142,314.40)	\$(0.23)	0.15
CS		7/31/2019	1,283,610,702.31	1,286,405,748.44	0.3254	\$1,283,610,702.00	\$ 0.31	\$ 2,795,046.44	0.33
		8/31/2019	1,282,829,002.57	1,287,622,827.27	2.4858	\$1,282,829,003.00	\$(0.43)	\$ 4,793,824.27	2.49
		9/30/2019	1,305,474,488.51	1,313,900,053.66	-0.5855	\$1,305,474,489.00	\$(0.49)	\$ 8,425,564.66	-0.59
		10/31/2019	1,294,116,065.41	1,297,663,274.07	0.3128	\$1,297,663,273.71	\$(3,547,208.30)	\$0.36	0.31
		11/30/2019	1,295,502,932.31	1,297,764,682.47	0.0193	\$1,297,764,682.47	\$(2,261,750.16)	\$ -	0.02
		12/31/2019	64,452,510.54	1,137,486,170.34	-0.2449	\$1,137,486,170.34	1,073,033,659.80	\$ -	-0.24
		1/31/2020				Removed from Composite			
		2/29/2020							
		3/31/2020							
		4/30/2020							
		5/31/2020							
		6/30/2020							
Payden		7/31/2019	-	-					
		8/31/2019	-	-					
		9/30/2019	-	-					
		10/31/2019	626,000,000.00	626,000,000.00	0.2956	\$ 605,806,451.61	\$20,193,548.39	\$20,193,548.39	0.31
		11/30/2019	627,850,200.89	627,850,200.89	0.2326	\$ 627,850,200.89	\$ -	\$ -	0.23
		12/31/2019	626,660,458.61	629,225,167.22	0.2146	\$ 629,225,167.22	\$(2,564,709.10)	\$(0.49)	0.21
		1/31/2020	626,172,353.20	627,891,964.61	2.723	\$ 627,891,965.11	\$(1,719,611.91)	\$(0.50)	2.72
		2/29/2020	641,517,028.74	643,148,990.92	1.6317	\$ 643,148,990.91	\$(1,631,962.17)	\$0.01	1.63
		3/31/2020	662,011,347.49	652,011,347.49	-7.5197	\$ 614,914,572.81	\$47,096,774.68	\$37,096,774.68	-7.85

FY 2020 – Core Income (continued)

Account	Account #	Date MV	PARis Prior MV + Net CF	Prior MV + Wt Net CF	Returns	PCP MV	Check vs Net CF	Checks vs Wt Net CF	Returns
WIFIP		4/30/2020	612,523,996.33	613,717,843.10	5.3074	\$ 613,717,843.05	\$(1193,846.72)	\$ 0.05	5.31
		5/31/2020	697,646,932.62	644,903,315.24	1.3718	\$ 697,167,615.03	\$479,317.59	\$ (52,264,299.79)	1.43
		6/30/2020	700,418,944.79	707,592,032.48	2.2432	\$ 704,665,345.50	\$(4,246,400.71)	\$ 2,926,686.98	2.26
		7/31/2019							
		8/31/2019							
		9/30/2019							
		10/31/2019				Not in portfolio			
		11/30/2019	1,151,993,447.95	1,256,660,114.62	-0.1847	\$1,256,665,135.74	\$(104,671,687.79)	\$ (5,021.12)	-0.19
		12/31/2019	1,145,720,847.42	1,149,544,528.97	-0.429	\$1,149,549,549.95	\$(3,828,702.53)	\$ (5,020.98)	-0.43
		1/31/2020	1,138,070,842.86	1,140,702,158.83	2.2667	\$1,140,707,179.47	\$(2,636,336.61)	\$ (5,020.64)	2.27
		2/29/2020	1,211,122,819.33	1,165,457,366.31	2.6944	\$1,165,462,387.30	\$45,660,432.03	\$ (5,020.99)	2.69
		3/31/2020	1,188,742,785.86	1,240,258,922.38	3.0112	\$1,240,263,943.48	\$(51,521,157.62)	\$ (5,021.10)	3.01
		4/30/2020	1,206,048,495.64	1,207,004,425.28	0.4095	\$1,207,009,446.65	\$ (960,951.01)	\$ (5,021.37)	0.41
		5/31/2020	1,205,991,578.57	1,206,152,868.89	-0.2939	\$1,206,157,890.32	\$ (166,311.75)	\$ (5,021.43)	-0.29
		6/30/2020	1,168,984,207.26	1,193,516,913.60	0.1415	\$1,193,521,934.45	\$ (24,537,727.19)	\$ (5,020.85)	0.14

FY 2021 – Broad US Equity

Account	Account #	Date MV	PARis Prior MV + Net CF	Prior MV + Wt Net CF	Returns	PCP MV	Check vs Net CF	Checks vs WT Net CF	Returns
SSGA	5077992	7/31/2020	1,607,845,299.46	1,614,943,234.48	5.6348	\$ 1,614,485,303.19	\$ 6,640,003.73	\$(457,931.29)	5.63
		8/31/2020	1,686,335,668.50	1,698,170,316.24	7.185	\$ 1,692,300,544.60	\$ 5,964,876.10	\$ (5,869,771.64)	7.19
		9/30/2020	1,622,879,740.09	1,807,572,936.39	-3.8023	\$ 1,636,781,619.45	\$13,901,879.36	\$ (170,791,316.94)	-3.80
		10/31/2020	1,555,522,543.28	1,561,109,392.20	-2.6469	\$ 1,560,568,729.40	\$ 5,046,186.12	\$(540,662.80)	-2.65
		11/30/2020	1,511,099,270.95	1,513,679,640.49	10.929	\$ 1,513,679,640.49	\$ 2,580,369.54	\$-	10.93
		12/31/2020	1,674,479,493.25	1,676,330,455.42	3.8406	\$ 1,676,330,455.42	\$ 1,850,962.17	\$-	3.84
		1/31/2021	1,677,465,506.06	1,703,610,737.51	-1.0102	\$ 1,738,860,737.51	\$61,395,231.45	\$ 35,250,000.00	-1.01
		2/28/2021	1,644,685,662.41	1,661,515,155.26	2.7406	\$ 1,662,018,678.47	\$17,333,016.06	\$ 503,523.21	2.74
		3/31/2021	1,700,975,047.81	1,690,736,208.34	4.3772	\$ 1,701,848,391.53	\$ 873,343.72	\$ 11,112,183.19	4.38
		4/30/2021	1,769,347,018.01	1,775,123,105.45	5.3404	\$ 1,775,123,105.45	\$ 5,776,087.44	\$-	5.34
		5/31/2021	1,806,075,039.88	1,831,081,993.14	0.688	\$ 1,831,081,993.14	\$25,006,953.26	\$-	0.69
		6/30/2021	1,674,025,260.55	1,818,673,612.08	2.3321	\$ 1,684,492,659.75	\$10,467,399.20	\$ (134,180,952.33)	2.32
Internal Equity Quantamental	5126424	7/31/2020	-	-	0	\$ -	\$ -	\$-	0.00
		8/31/2020	-	-	0	\$ -	\$ -	\$-	0.00
		9/30/2020	-	-	0	\$ -	\$ -	\$-	0.00
		10/31/2020	34,000.00	-	-3.8232	\$ 2,194	\$ (31,806.45)	\$2,193.55	-3.82
		11/30/2020	32,700.10	32,700.10	10.881	\$ 32,700	\$ -	\$ -	10.88
		12/31/2020	34,501.78	36,088.21	3.7104	\$ 36,088	\$ 1,586.45	\$ 0.02	3.71
		1/31/2021	47,059,871.49	6,119,586.70	-11.0603	\$ 35,841	\$(47,024,030.68)	\$ (6,083,745.89)	-11.06
		2/28/2021	46,382,855.36	46,383,028.19	2.7683	\$ 46,383,028	\$172.83	\$-	2.77
		3/31/2021	47,619,777.28	47,666,249.87	2.7638	\$ 47,666,250	\$46,472.59	\$-	2.76
		4/30/2021	48,935,327.95	48,937,074.76	6.1484	\$ 48,937,075	\$ 1,746.81	\$-	6.15
		5/31/2021	52,359,983.89	52,082,760.40	0.0715	\$ 52,082,760	\$ (277,223.49)	\$-	0.07
		6/30/2021	51,954,115.49	52,205,211.43	3.9553	\$ 52,205,211	\$ 251,095.94	\$-	3.96
Internal Equity Quantitative		7/31/2020	-	-	0	\$ -	\$ -	\$-	0.00
		8/31/2020	-	-	0	\$ -	\$ -	\$-	0.00
		9/30/2020	-	-	0	\$ -	\$ -	\$-	0.00
		10/31/2020	-	-	0	\$ -	\$ -	\$-	0.00
		11/30/2020	-	-	0	\$ -	\$ -	\$-	0.00
		12/31/2020	-	-	0	\$ -	\$ -	\$-	0.00
		1/31/2021	-	-	0	\$ -	\$ -	\$-	0.00
		2/28/2021	-	-	0	\$ -	\$ -	\$-	0.00
		3/31/2021	37,556.06	-	0	\$ -	\$ (37,556.06)	\$-	0.00
		4/30/2021	39,633.00	39,633.00	5.291	\$ 39,633	\$ -	\$-	5.29
		5/31/2021	50,993,505.00	32,164,539.68	-0.2673	\$ 32,164,540	\$(18,828,965.32)	\$-	-0.27
		6/30/2021	50,900,352.38	50,904,419.36	1.5582	\$ 50,904,419	\$ 4,066.98	\$-	1.56

FY 2022 – Real Estate

Account	Account #	Date MV	PARis Prior MV + Net CF	Prior MV + Wt Net CF	Returns	PCP MV	Check vs Net CF	Checks vs WT Net CF
Clarion	5011939	7/31/2021	924,082,345.00	940,570,202.81		\$940,570,202.81	\$ 16,487,857.81	\$ -
		8/31/2021	924,082,345.00	924,082,345.00		\$924,082,345.00	\$ -	\$ -
		9/30/2021	916,656,611.00	924,082,345.00		\$924,082,345.00	\$7,425,734.00	\$ -
		10/31/2021	898,521,661.00	900,877,069.26		\$900,877,069.26	\$2,355,408.26	\$ -
		11/30/2021	898,521,661.00	898,521,661.00		\$898,521,661.00	\$ -	\$ -
		12/31/2021	891,666,396.00	898,521,661.00		\$898,521,661.00	\$6,855,265.00	\$ -
		1/31/2022	960,606,134.00	960,606,134.00		\$960,606,134.00	\$ -	\$ -
		2/28/2022	960,606,134.00	960,606,134.00		\$960,606,134.00	\$ -	\$ -
		3/31/2022	953,651,967.00	960,606,134.00		\$960,606,134.00	\$6,954,167.00	\$ -
		4/30/2022	1,019,881,578.00	1,019,881,578.00		\$ 1,019,881,578.00	\$ -	\$ -
		5/31/2022	1,019,881,578.00	1,019,881,578.00		\$ 1,019,881,578.00	\$ -	\$ -
		6/30/2022	1,012,366,729.00	1,019,881,578.00		\$ 1,019,881,578.00	\$7,514,849.00	\$ -
UBS	5012118	7/31/2021	229,238,501.37	229,238,501.37		\$229,238,501	\$ -	\$ -
		8/31/2021	229,238,501.37	229,238,501.37		\$229,238,501	\$ -	\$ -
		9/30/2021	212,187,736.66	229,238,501.37		\$212,367,285	\$179,548.18	\$(16,871,216.53)
		10/31/2021	224,788,461.12	224,788,461.12		\$224,788,461	\$ -	\$ -
		11/30/2021	224,788,461.12	224,788,461.12		\$224,788,461	\$ -	\$ -
		12/31/2021	212,141,777.27	219,892,970.60		\$219,892,971	\$7,751,193.33	\$ -
		1/31/2022	222,826,719.30	222,826,719.30		\$222,826,719	\$ -	\$ -
		2/28/2022	222,826,719.30	222,826,719.30		\$222,826,719	\$ -	\$ -
		3/31/2022	201,777,137.08	222,092,754.32		\$206,739,135	\$4,961,998.11	\$(15,353,619.13)
		4/30/2022	216,653,417.24	216,653,417.24		\$216,653,417	\$ -	\$ -
		5/31/2022	216,653,417.24	216,653,417.24		\$216,653,417	\$ -	\$ -
		6/30/2022	200,338,751.07	216,653,417.24		\$200,882,573	\$543,822.21	\$(15,770,843.96)
MS Prime		7/31/2021	406,469,351.31	401,884,266.68		\$401,884,267	\$ (4,585,084.63)	\$ -
		8/31/2021	406,469,349.89	406,469,349.89		\$406,469,350	\$ -	\$ -
		9/30/2021	406,469,349.89	406,469,349.89		\$406,469,350	\$ -	\$ -
		10/31/2021	426,135,916.55	429,630,643.16		\$429,630,643	\$3,494,726.61	\$ -
		11/30/2021	426,135,913.69	426,135,913.69		\$426,135,914	\$ -	\$ -
		12/31/2021	426,135,913.69	426,135,913.69		\$426,135,914	\$ -	\$ -
		1/31/2022	462,843,203.44	466,503,469.74		\$466,503,470	\$3,660,266.30	\$ -
		2/28/2022	462,843,200.45	462,843,200.45		\$462,843,200	\$ -	\$ -
		3/31/2022	462,843,200.45	462,843,200.45		\$462,843,200	\$ -	\$ -
		4/30/2022	490,721,830.30	494,827,214.41		\$494,827,214	\$4,105,384.11	\$ -
		5/31/2022	490,721,799.56	490,721,799.56		\$490,721,800	\$ -	\$ -
		6/30/2022	490,721,799.56	490,721,799.56		\$490,721,800	\$ -	\$ -
Realterm		7/31/2021	169,555,856.95	169,555,856.95		\$169,555,857	\$ -	\$ -
		8/31/2021	169,555,828.00	169,555,828.00		\$169,555,828	\$ -	\$ -
		9/30/2021	169,555,828.00	171,006,714.27		\$171,006,714	\$1,450,886.27	\$ -

FY 2022 – Real Estate (continued)

Account	Account #	Date MV	PARis Prior MV + Net CF	Prior MV + Wt Net CF	Returns	PCP MV	Check vs Net CF	Checks vs WT Net CF
		10/31/2021	209,967,152.12	197,887,113.47		\$197,887,113	\$(12,080,038.65)	\$ -
		11/30/2021	248,805,872.20	212,206,992.73		\$212,206,993	\$(36,598,879.47)	\$ -
		12/31/2021	289,162,585.00	260,522,328.55		\$260,522,329	\$(28,640,256.45)	\$ -
		1/31/2022	303,980,705.00	303,980,705.00		\$303,980,705	\$ -	\$ -
		2/28/2022	301,738,762.00	302,059,039.57		\$302,059,040	\$320,277.57	\$ -
		3/31/2022	303,980,705.00	303,985,310.19		\$303,985,310	\$ 4,605.19	\$ -
		4/30/2022	327,289,964.05	327,289,964.05		\$327,289,964	\$ -	\$ -
		5/31/2022	327,289,921.00	327,338,626.81		\$327,338,627	\$ 48,705.81	\$ -
		6/30/2022	327,289,921.00	327,289,921.00		\$327,289,921	\$ -	\$ -
SC		7/31/2021	110,495,143.74	110,495,143.74		\$110,495,144	\$ -	\$ -
		8/31/2021	108,525,577.28	110,493,553.33		\$110,493,553	\$1,967,976.05	\$ -
		9/30/2021	110,493,553.33	110,493,553.33		\$110,493,553	\$ -	\$ -
		10/31/2021	112,689,200.52	112,567,883.60		\$112,567,884	\$ (121,316.92)	\$ -
		11/30/2021	112,478,675.41	112,478,675.41		\$112,478,675	\$ -	\$ -
		12/31/2021	112,478,675.41	112,478,675.41		\$112,478,675	\$ -	\$ -
		1/31/2022	114,478,472.70	114,346,469.92		\$114,346,470	\$ (132,002.78)	\$ -
		2/28/2022	114,263,099.74	114,263,099.74		\$114,263,100	\$ -	\$ -
		3/31/2022	114,263,099.74	114,263,099.74		\$114,263,100	\$ -	\$ -
		4/30/2022	115,835,517.49	117,808,890.57		\$117,808,891	\$1,973,373.08	\$ -
		5/31/2022	118,209,694.40	118,209,694.40		\$118,209,694	\$ -	\$ -
		6/30/2022	118,209,694.40	118,209,694.40		\$118,209,694	\$ -	\$ -

FY 2022 – Hedge Funds

Account	Account #	Date MV	PARis Prior MV + Net CF	Prior MV + Wt Net CF	Returns	PCP MV	Check vs Net CF	Checks vs WT Net CF
Grosvenor B	5011939	7/31/2021	333,675,996.38	333,675,996.38		\$333,675,996.38	\$ -	\$ -
		8/31/2021	335,372,031.00	335,372,031.00		\$335,372,031.00	\$ -	\$ -
		9/30/2021	406,889,391.00	339,589,391.00		\$339,589,391.00	\$(67,300,000.00)	\$ -
		10/31/2021	406,979,177.38	406,979,177.38		\$406,979,177.38	\$ -	\$ -
		11/30/2021	477,677,046.00	411,627,046.00		\$411,627,046.00	\$(66,050,000.00)	\$ -
		12/31/2021	473,526,036.00	473,526,036.00		\$473,526,036.00	\$ -	\$ -
		1/31/2022	492,476,737.38	476,876,737.38		\$476,876,737.38	\$(15,600,000.00)	\$ -
		2/28/2022	487,272,716.00	477,272,716.00		\$477,272,716.00	\$(10,000,000.00)	\$ -
		3/31/2022	491,818,707.00	483,818,707.00		\$483,818,707.00	\$(8,000,000.00)	\$ -
		4/30/2022	487,305,825.38	479,305,825.38		\$479,305,825.38	\$(8,000,000.00)	\$ -
		5/31/2022	468,687,058.00	468,687,058.00		\$468,687,058.00	\$ -	\$ -
		6/30/2022	455,966,339.00	455,966,339.00		\$455,966,339.00	\$ -	\$ -
Grosvenor C	5012118	7/31/2021	614,157,276.00	574,157,276.00		\$574,157,276	\$(40,000,000.00)	\$ -
		8/31/2021	618,618,132.00	618,618,132.00		\$618,618,132	\$ -	\$ -
		9/30/2021	643,122,516.00	628,122,516.00		\$628,122,516	\$(15,000,000.00)	\$ -
		10/31/2021	638,100,880.00	638,100,880.00		\$638,100,880	\$ -	\$ -
		11/30/2021	684,857,781.00	644,857,781.00		\$644,857,781	\$(40,000,000.00)	\$ -
		12/31/2021	680,459,008.00	680,459,008.00		\$680,459,008	\$ -	\$ -
		1/31/2022	685,221,115.00	685,221,115.00		\$685,221,115	\$ -	\$ -
		2/28/2022	680,057,272.00	664,057,272.00		\$664,057,272	\$(16,000,000.00)	\$ -
		3/31/2022	683,609,419.00	673,609,419.00		\$673,609,419	\$(10,000,000.00)	\$ -
		4/30/2022	671,511,663.00	671,511,663.00		\$671,511,663	\$ -	\$ -
		5/31/2022	643,353,066.00	643,353,066.00		\$643,353,066	\$ -	\$ -
		6/30/2022	631,144,776.00	631,144,776.00		\$631,144,776	\$ -	\$ -

FY 2023 – Infrastructure

Account	Account #	Date MV	PARis Prior MV + Net CF	Prior MV + Wt Net CF	Returns	PCP MV	Check vs Net CF	Checks vs WT Net CF
Macquarie		7/31/2022	119,949,879.85	116,935,633.36		\$116,935,633	\$(3,014,246.49)	\$-
		8/31/2022	119,949,879.85	119,949,879.85		\$119,949,880	\$-	\$-
		9/30/2022	119,949,879.85	119,949,879.85		\$119,949,880	\$-	\$-
		10/31/2022	112,686,722.13	112,686,722.13		\$112,686,722	\$-	\$-
		11/30/2022	112,684,859.06	112,686,601.71		\$112,686,602	\$ 1,742.65	\$-
		12/31/2022	112,684,859.71	112,684,863.52		\$112,684,864	\$ 3.81	\$-
		1/31/2023	177,737,126.46	160,057,761.06		\$160,057,761	\$(17,679,365.40)	\$-
		2/28/2023	177,743,253.78	177,743,253.78		\$177,743,254	\$-	\$-
		3/31/2023	177,517,820.03	177,742,680.79		\$177,742,681	\$224,860.76	\$-
		4/30/2023	181,322,309.26	181,322,327.63		\$181,322,328	\$ 18.37	\$-
		5/31/2023	181,322,969.25	181,322,993.17		\$181,322,993	\$ 23.92	\$-
		6/30/2023	181,322,292.07	181,322,640.44		\$181,322,640	\$348.36	\$ (0.01)
MGIF		7/31/2022	-	-		\$ -	\$-	\$-
		8/31/2022	-	-		\$ -	\$-	\$-
		9/30/2022	25,000,000.00	833,333.33		\$ 833,333	\$(24,166,666.67)	\$-
		10/31/2022	25,000,556.00	25,000,556.00		\$25,000,556	\$-	\$-
		11/30/2022	25,000,556.00	25,000,556.00		\$25,000,556	\$-	\$-
		12/31/2022	25,000,556.00	25,000,556.00		\$25,000,556	\$-	\$-
		1/31/2023	24,778,903.00	24,778,903.00		\$24,778,903	\$-	\$-
		2/28/2023	24,778,903.00	24,778,903.00		\$21,778,903	\$(3,000,000.00)	\$(3,000,000.00)
		3/31/2023	24,778,903.00	24,778,903.00		\$24,778,903	\$-	\$-
		4/30/2023	25,753,586.00	25,753,586.00		\$25,753,586	\$-	\$-
		5/31/2023	25,753,586.00	25,753,586.00		\$25,753,586	\$-	\$-
		6/30/2023	25,753,586.00	25,753,586.00		\$25,753,586	\$-	\$-
Grosvenor E		7/31/2022	-	-		\$ -	\$-	\$-
		8/31/2022	-	-		\$ -	\$-	\$-
		9/30/2022	-	-		\$ -	\$-	\$-
		10/31/2022	-	-		\$ -	\$-	\$-
		11/30/2022	-	-		\$ -	\$-	\$-
		12/31/2022	-	-		\$ -	\$-	\$-
		1/31/2023	-	-		\$ -	\$-	\$-
		2/28/2023	40,172,049.61	38,737,333.55		\$38,737,334	\$(1,434,716.06)	\$-
		3/31/2023	40,158,956.00	40,158,956.00		\$40,158,956	\$-	\$-
		4/30/2023	39,952,759.00	39,952,759.00		\$39,952,759	\$-	\$-
		5/31/2023	39,942,586.00	39,942,586.00		\$39,942,586	\$-	\$-
		6/30/2023	40,255,407.00	39,931,129.00		\$40,039,222	\$(216,185.33)	\$108,092.67

d. Excluded Investments

MEMORANDUM OF EXCLUDED INVESTMENTS (Copied from Appendix provided by the LSO)**Public Purpose Investments**

The State Treasurer's Office will exclude all public purpose investments from the return calculation based on Wyo. Stat. 9-1-409(e)(v)(A)(I), which excludes "Funds invested for a specific public purpose."

Private Equity and Real Estate

The Office will also exclude all current private equity and non-core real estate, except for the SCORE+ fund from the return calculation based on Wyo. Stat. 9-1-409(e)(v)(A)(II) which excludes ""Investments specifically directed by the state treasurer or state loan and investment board and not made at the recommendation of participating employees."

Private Equity

Our private equity holdings consist of Access Venture Partners II, Cheyenne Capital, Hamilton Lane, and Neuberger Berman Sauger Fund. We will exclude our legacy private equity managers based on Wyo. Stat. 9-1-409(e)(v)(A)(II), as none of these investments were recommended by participating employees, and all were directed by the State Treasurer or State Loan and Investment Board. In the case of Cheyenne Capital, this investment was initiated in 2003.

Real Estate – Core and Non-Core

Our real estate universe can be divided into core and non-core holdings. For the majority of our holdings this distinction is relatively straightforward - UBS and Clarion are core, whilst M&G, Northwood, WestRiver and the handful of other smaller funds are non-core.

In theory, the open-ended funds can be redeemed at our discretion, so by choosing not to redeem them, we are implicitly accepting their presence within the portfolio. Conversely, the closed ended funds cannot be redeemed. Instead the positions would have to be sold in the secondary market, likely at a considerable discount.

Many of our current non-core funds were not selected by participating employees. Also several of these funds have returns that do not reflect their benchmarks - an example of this would be the M&G investment due to its sterling-denomination. As per Wyo. Stat. 9-1-409(e)(v)(A)(II), this exposure will therefore be excluded from any performance calculations for the group, as none of these investments were recommended by participating employees, and all were directed by the State Treasurer or State Loan and Investment Board.

The one exception to this would be the SCORE+ fund managed by SC Capital. Unlike the other non-core holdings, the decision to invest in this investment was made by the existing investment team, so its performance (whether positive or negative) should also be attributed to the team.

e. STO Performance Compensation Plan



CURTIS E. MEIER, JR
WYOMING STATE TREASURER

INVESTMENT PROFESSIONAL PERFORMANCE C O M P E N S A T I O N P L A N

July 1, 2019

As amended effective March 1, 2022

1

**STATE OF WYOMING, STATE TREASURER'S OFFICE
INVESTMENT PROFESSIONAL PERFORMANCE COMPENSATION PLAN**

THE STATE OF WYOMING, STATE TREASURER ("**Treasurer**") adopted this Investment Professional Performance Compensation Plan ("**Plan**") effective as of July 1, 2019, which may be amended and restated by the Treasurer from time to time. This Plan document sets forth the terms and conditions of the Plan for the Investment Period beginning July 1, 2019.

RECITALS

A. **WHEREAS**, Wyoming Statute § 9-1-409(e) authorizes the Treasurer to implement and administer a performance compensation plan for specific at-will State of Wyoming, State Treasurer's Office ("**Treasury**") employees who are directly engaged in investing the assets of the State; and

B. **WHEREAS**, the Plan shall seek to maximize risk-adjusted total returns net of fees on investment of State assets; and

C. **WHEREAS**, the purpose of the Plan is to provide competitive compensation to Treasury investment professionals, subject to achievement of defined performance objectives, that will drive superior investment performance within established risk guidelines.

NOW THEREFORE, this Plan document sets forth the terms and conditions of the Plan for the Investment Period beginning July 1, 2019, as follows:

Article I. Definitions

The following terms are defined in the provisions set forth below. All capitalized terms used in this Plan and accompanying documents and not otherwise defined in this Plan will have the meanings set forth in these Definitions.

1.01 "Alpha" means the dollar amount of performance above the relevant benchmark in a given Investment Period.

1.02 "Asset Class" means a type of State portfolio investment including equity, fixed income, and hedge funds.

1.03 "Asset Class Benchmarks" means the benchmarks within each portfolio asset class as established by the Investment Funds Committee.

1.04 "Assigned Asset Class" means an Asset Class which a Participating Employee has been assigned to directly engage in investing.

1.05 "Base Salary" means the average cash remuneration paid to a Participating Employee in the fiscal year of the applicable Investment Period.

1.06 “Code” means the Internal Revenue Code of 1986, as amended from time to time.

1.07 “Disability” means the loss of use of the body as a whole or any permanent injury which permanently incapacitates the employee from performing work at any gainful occupation for which he is reasonably suited by experience or training.

1.08 “Eligible Employee” means a Treasury employee eligible to be designated by the Plan Administrator to participate in the Plan for an Investment Period. Pursuant to Wyoming Statute § 9-1-409, Eligible Employees are: Chief Investment Officer; Senior Investment Officer; Investment Officer; Senior Analyst; Analyst.

1.09 “Fiscal Year” means July 1 through June 30.

1.10 “Individual Performance” means the total sum of the Alpha generated for the Assigned Asset Classes

1.11 “Ineligible Employee” means an employee of Treasury who is not an Eligible Employee and cannot participate in the Plan.

1.12 “Investment Consultant” means the consultant hired by the State Loan and Investment Board under Wyoming Statute § 9-4-716.

1.13 “Investment Funds Committee” or “IFC” means the committee created by Wyoming Statute § 9-4-720.

1.14 “Investment Performance Measurement” means measuring investment performance during an Investment Period based on fifty percent (50%) related to Total Fund investment performance and fifty percent (50%) related to the Assigned Asset Class investment performance.

1.15 “Investment Period” means the rolling three year period beginning July 1 of a given Fiscal Year and ending June 30 of the third Fiscal Year thereafter, except during the first two years of Plan initiation as described in Section 4.04

1.16 “Participating Employee” means the individual Treasury employee designated by the Plan Administrator to participate in the Plan for a given Investment Period pursuant to the participating employment agreement executed by the employee and Treasury and incorporated herein by this reference.

1.17 “Performance Compensation” means compensation payable to Participating Employees in addition to base salary determined by investment performance exceeding investment benchmarks established pursuant to this Plan for an Investment Period.

1.18 “Plan” means the State of Wyoming, State Treasurer’s Office Investment Professional Performance Compensation Plan, as amended from time to time.

1.19 “Plan Administrator” means the Treasurer or the Ineligible Employee designee appointed by the Treasurer to administer the Plan and designate Eligible Employees for participation in the Plan for a given Investment Period in consultation with the Investment Consultant or other consultant as designated by the Treasurer.

1.20 “Retirement” means a Participating Employee retiring under the provisions of the Wyoming Retirement Act, Wyoming Statutes §§ 9-3-401 through 9-3-432.

1.21 “Retirement Eligible” means an employee who is eligible for full or reduced service retirement, or a disability retirement under the Wyoming Retirement Act, Wyoming Statutes §§ 9-3-401 through 9-3-432.

1.22 “Total Fund” means the total or overall investment portfolio of funds managed by the Treasurer, excluding funds invested for a specific public purpose, and investments currently held and specifically directed by the Treasurer or the State Loan and Investment Board and not made at the recommendation of participating employees per Wyoming Statute § 9-1-409(e)(v).

1.23 “Total Fund Benchmark” means the benchmark for the Total Fund set by the Investment Funds Committee.

1.24 “Treasurer” has the meaning set forth in the Preamble.

1.25 “Treasury” has the meaning set forth in the Preamble.

Article II.

OMITTED

Article III. Eligibility

Section 3.01 Participation. Only Participating Employees designated by Wyoming Statute § 9-1-409(e)(ii) shall be eligible for participation in the Plan. Prior to July 1 of each Fiscal Year, the Plan Administrator will designate Participating Employees for participation for the Investment Period. To be eligible for Performance Compensation for an Investment Period, each Participating Employee must be continuously employed as a Participating Employee from July 1 through June 30 of the Fiscal Year, except as otherwise set forth in this Article.

Section 3.02 Partial Year Participation. An Eligible Employee hired between July 1 and June 30 in a given Fiscal Year, and who remains continuously employed through the end of the Investment Period during which he was hired, shall be considered a Participating Employee for the first Fiscal Year of that Investment Period. Performance Compensation shall be determined

based upon investment performance for the Investment Period in which the Participating Employee was hired, pro-rated for the employee's months of employment.

Section 3.03 Position Transfer. For Participating Employees who transfer from one eligible position within Treasury to another eligible position within Treasury during an Investment Period, the Performance Compensation payable shall be pro-rated.

Section 3.04 No Right to Future Employment. Participation in the Plan for any one Investment Period does not confer the right to participate in the Plan in any other Investment Period. Participation in the Plan does not confer the right to continued employment with Treasury.

Section 3.05 FMLA Leave. For Participating Employees who take leave under the Family and Medical Leave Act during the Investment Period, Performance Compensation shall be pro-rated based on the time worked during that Investment Period.

Section 3.06 Leave Time. Participating Employees will accrue Leave Time as provided below:

(a) Chief investment officers, senior investment officers and investment officers shall receive leave time in the same manner and amount as department directors under W.S. 9-2-1706(b). The current Executive Personal Leave Policy is attached in Appendix C, incorporated herein by this reference, and subject to change.

(b) Senior analysts and analysts shall receive leave time in accordance with standards and rules established or promulgated in accordance with W.S. 9-2-1022(a).

Article IV. Performance Compensation Calculation

Section 4.01 Quantitative Performance. The determination of whether investment performance has exceeded established investment benchmarks is weighed as follows: fifty percent (50%) based on the Total Fund Performance and fifty percent (50%) based on the Participating Employee's individual Assigned Asset Class Performance, as set forth below.

Section 4.01.01 Total Fund Performance. The Plan Administrator in conjunction with the Investment Consultant shall calculate Performance Compensation for a particular Investment Period for the Total Fund by comparing the Total Fund's actual performance to the Total Fund Benchmark as established by the Investment Funds Committee prior to the Investment Period, set forth in Appendix A, and incorporated herein by this reference. Performance shall be calculated to the nearest 1 10th of a basis point. The Treasurer shall provide the calculation to the Investment Funds Committee for its determination regarding whether Performance Compensation was earned for a given Investment Period.

Section 4.01.02 Assigned Asset Class Performance. The Plan Administrator in conjunction with the Investment Consultant shall calculate Performance Compensation for a particular Investment Period for each Participating Employee for the employee's Assigned Asset Class by summing the employee's Assigned Asset Class actual total performance (the total Alpha

dollars generated from the Assigned Asset Class) and comparing it to the Assigned Asset Class Benchmark's actual performance, using the Asset Class Benchmarks as established by the Investment Funds Committee prior to the Investment Period, set forth in Appendix A, and incorporated herein by this reference. Performance shall be calculated to the nearest 1 10th of a basis point. The Treasurer shall provide the calculation to the Investment Funds Committee for its determination whether Performance Compensation was earned for a given Investment Period.

Example: If the Total Fund return equals 10% and the benchmark return was 9.75%, then the fund would have outperformed the benchmark by 25 basis points (0.25%) for that Investment Period.

The Treasurer shall recommend for the Investment Funds Committee's determination the dollar amount of outperformance for any given Investment Period by multiplying the portfolio value by the percentage outperformance for that Investment Period. Portfolio value for calculating pro-rated performance shall be determined by averaging the monthly values of the Total Fund portfolio over the course of an Investment Period.

Example: If the average value of the Total Fund for an Investment Period was \$20 billion, that amount would be multiplied by 25 basis points outperformance (0.0025), resulting in a dollar amount equal to \$50,000,000.

Section 4.02 Maximum Performance Compensation. Prior to the beginning of each Fiscal Year, the Treasurer shall estimate the maximum performance compensation that may become payable to Participating Employees for the Investment Period. The maximum performance compensation that may be earned any given Investment Period for each Participating Employee shall not exceed the following:

Eligible Employee Position	Maximum Performance Compensation
Chief Investment Officer	One Hundred Percent (100%) of Base Salary
Senior Investment Officer	Seventy-Five Percent (75%) of Base Salary
Investment Officer	Fifty Percent (50%) of Base Salary
Senior Analyst	Twenty-Five Percent (25%) of Base Salary
Analyst	Twenty-Five Percent (25%) of Base Salary

Total payments to all Participating Employees for Performance Compensation earned in a given Investment Period shall not exceed two percent (2%) of the net investment returns above the established benchmark of the Total Fund for that Investment Period and two percent (2%) of the net investment returns above the established benchmark of the Participating Employee's Assigned Asset Class. The amount of outperformance needed to achieve maximum performance compensation payout for any given Investment Period shall be determined by dividing the aggregate total of maximum performance compensation for each Participating Employee by two percent (2%). For examples, see Appendix B.

Section 4.03 Calculating Performance Compensation. At the conclusion of each Investment Period, the Treasurer shall recommend for the Investment Funds Committee's determination the

amount of Performance Compensation earned for each Participating Employee. If the Investment Funds Committee determines that the Total Fund Benchmark or any Asset Class Benchmarks have been exceeded for a given Investment Period, then the performance compensation shall be proportional up to the maximum determined amount derived from the 2% factor and salary percentage caps. For examples, see Appendix B.

Section 4.04 Performance Compensation Payments. Payments for Performance Compensation for any one Investment Period shall be as follows:

(a) Payments of Performance Compensation for Fiscal Year 2020, if any, shall be based upon Investment Performance Measurement beginning July 1, 2019 and ending June 30, 2020.

(b) Payments of Performance Compensation for Fiscal Year 2021, if any, shall be based upon the arithmetic average of the Investment Performance Measurement beginning July 1, 2019 and ending June 30, 2020 and the Investment Performance Measurement beginning July 1, 2020 and ending June 30, 2021.

(c) Payments of Performance Compensation for Fiscal Year 2022 and each Fiscal Year thereafter, if any, shall be based upon the arithmetic average of the Investment Performance Measurement beginning that Fiscal Year and the two immediately preceding Fiscal Years.

Article V. Determination of Performance Compensation

Section 5.01 Determination of Performance Compensation. Following the end of each Investment Period, the Plan Administrator in conjunction with the Investment Consultant shall assess whether investment performance of the Total Fund and each Asset Class during the Investment Period exceeded the benchmarks established by the Investment Funds Committee, attached as Appendix A. The Plan Administrator shall provide the data and assessment to the Investment Funds Committee for its determination whether the established benchmarks have been exceeded.

Section 5.02 Performance Compensation Summary Report. The Treasurer shall report to the Joint Appropriations Committee and the Select Committee on Capital Financing and Investments by November 1 of each year on the Plan. The report shall include:

- (a) Payments and methodology of calculating payments under the Plan;
- (b) A measurement quantifying the risk resulting from the variation between the prior year's investment benchmarks and the prior year's actual investments; and
- (c) An estimate of future payments under the Plan and future expected investment benchmarks.

Article VI. Payment of Performance Compensation

Section 6.01 Eligibility for Payment. Eligibility for Performance Compensation does not confer any contractual right to payment. A Participating Employee must be vested on or before each Installment Payment Date as set forth in Section 6.02 to be eligible to receive payment of Performance Compensation applicable to a given Investment Period. A Participating Employee becomes vested on an Installment Payment Date if the Participating Employee: a) is actively employed by Treasury on the Installment Payment Date; and b) satisfies the eligibility requirements for participation under this Plan. Notwithstanding the foregoing, in the event employment is terminated prior to an Installment Payment Date for reasons related to the death, Disability, or Retirement of a Participating Employee, the Participating Employee shall be deemed fully vested in all outstanding installment payments as of the date of termination and shall be entitled to payment in full upon the next closest Installment Payment Date. A Participating Employee whose employment with Treasury is terminated for any other reason prior to an Installment Payment Date shall forfeit all unpaid Performance Compensation as of the date of termination, including portions of Performance Compensation from prior Investment Periods, subject to the terms of an anti-compete agreement that the Administrator may enter into with the terminated employee.

Section 6.02 Time and Form of Payment. Performance Compensation, if any, shall be paid by check or direct deposit to Participating Employees in three installments on set dates (each an "Installment Payment Date") as follows:

(a) **Total Fund Exceeds Investment Benchmarks Established by the Investment Funds Committee.** If the Total Fund return for the Investment Period exceeds the benchmarks established by the Investment Funds Committee, the following shall apply:

- (i) **First Installment.** Twenty-five percent (25%) of the Performance Compensation shall be paid on a date determined by the Plan Administrator, but in no case later than one hundred eighty (180) days immediately following the end of the Investment Period in which the Performance Compensation was earned, and shall be based on the Participating Employee's Base Salary determined as of the last day of the applicable Investment Period.
- (ii) **Second Installment.** Twenty-five percent (25%) of the Performance Compensation shall be paid on a date determined by the Plan Administrator, but in no case later than thirty (30) days following the close of the second Investment Period immediately following the Investment Period in which the Performance Compensation was earned, and shall be based on the Participating Employee's Base Salary determined as of the last day of the applicable Investment Period.
- (iii) **Third Installment.** Fifty percent (50%) of the Performance Compensation shall be paid on a date determined by the Plan Administrator, but in no case later than thirty (30) days following the close of the third Investment Period immediately following the Investment Period in which the Performance

Compensation was earned and shall be based on the Participating Employee's Base Salary determined as of the last day of the applicable Investment Period.

(b) **No Earnings Adjustment.** Performance Compensation payment amounts shall not accrue interest or be credited with any earnings adjustment.

Section 6.03 Withholding Taxes. All Performance Compensation payable under the Plan shall be subject to the withholding of such amounts as the State Auditor's Office may determine is required to be withheld pursuant to any applicable federal, state, local income, employment or other taxes.

Section 6.04 Retirement Benefit Does Not Include Performance Compensation. Performance Compensation shall not be included as compensation for the purpose of computing retirement or pension benefits earned by the employee.

Article VII. General Provisions

Section 7.01 Plan Funding. The Plan shall be funded from investment returns, with each invested fund's share calculated in proportion to the magnitude of aggregate investment earnings of each fund invested, including interest and dividends, which shall be continuously appropriated for payment of Performance Compensation as authorized by this subsection.

Section 7.02 No Right to Employment. The establishment of this Plan shall not be deemed to confer upon any person any legal right to be employed by, or to be retained in the employ of, Treasury, or to give any employee or any person any right to receive any payment whatsoever, except as provided under this Plan. All Participating Employees shall remain subject to discharge from employment at will to the same extent as if this Plan had never been adopted.

Section 7.03 Sovereign Immunity. Pursuant to Wyo. Stat. § 1-39-104(a), the State of Wyoming and Treasury expressly reserve sovereign immunity by entering into this Plan and specifically retain all immunities and defenses available to them as sovereigns. The parties acknowledge that the State of Wyoming has sovereign immunity and only the Wyoming Legislature has the power to waive sovereign immunity. Designations of venue, choice of law, enforcement actions, and similar provisions shall not be construed as a waiver of sovereign immunity. The parties agree that any ambiguity in this Plan shall not be strictly construed, either against or for either party, except that any ambiguity as to sovereign immunity shall be construed in favor of sovereign immunity.

Section 7.04 Section Headings. The headings in this Plan document have been inserted for convenience of reference only and shall in no way restrict or otherwise modify any of the terms or provisions hereof. The language in all parts of this Plan document shall in all cases be construed according to its fair meaning, and not strictly for or against any party hereto.

Section 7.05 Severability. Should any portion of this Plan be judicially determined to be illegal or unenforceable, the remainder of the Plan shall continue in full force and effect.

Section 7.06 Transferability. Any Performance Compensation payable pursuant to the terms of this Plan is personal to the Participating Employee and may not be sold, exchanged, transferred, pledged, assigned or otherwise disposed of by any means. Notwithstanding the above, in the case of death of the Participating Employee, the Performance Compensation payable pursuant to the terms of this Plan is payable to the Participating Employee's beneficiary.

Section 7.07 Successors. This Plan shall be binding upon and inure to the benefit of the Participating Employees and their respective heirs, representatives and successors.

Section 7.08 Section 409A; Deferred Compensation. Any amounts payable under this Plan shall comply with Section 409A of the Code, or be eligible for certain regulatory exceptions to the limitations imposed on deferred compensation by Section 409A, so as not to subject Participating Employee's to the payment of additional taxes and interest that may be imposed under Section 409A. To the maximum extent possible, this Plan shall be interpreted and construed in favor of satisfying any applicable requirements of Section 409A. However, neither Treasury nor the State of Wyoming guarantee any particular tax effect for payments made under the Plan. In any event, neither Treasury nor the State of Wyoming shall be responsible for the payment of any applicable taxes incurred by a Participating Employee pursuant to the Plan. In the event that any amounts payable under the Plan may be subject to additional tax and interest imposed under Section 409A, neither Treasury nor the State of Wyoming shall be required to assume any increased economic burden.

Section 7.09 Compliance with Law; Ethics. Participating Employees shall keep informed of and comply with all applicable federal, state and local laws and regulations in the performance of their duties, including the Wyoming Statutes governing Treasury, the Executive Branch Code of Ethics (Executive Order 1997-4), the Wyoming Ethics and Disclosure Act (Wyoming Statutes §§ 9-13-101, et seq.), the Master Investment Policy and Sub-Policies of the State Loan and Investment Board, as may be updated, and any and all ethical standards governing the Participating Employee's profession.

Section 7.10 Applicable Law/Venue. The construction, interpretation and enforcement of this Plan shall be governed by the laws of the State of Wyoming without regard to conflict of laws principles or rules. The courts of the State of Wyoming shall have jurisdiction over this Plan and any and all agreements related to it and the parties, and the venue shall be the First Judicial District, Laramie County, Wyoming.

Section 7.11 Availability of Funds. Each payment obligation of Treasury is conditioned upon the availability of government funds which are appropriated or allocated for the payment of this obligation and which may be limited for any reason including, but not limited to, congressional, legislative, gubernatorial, or administrative action. If funds are not allocated and available for continued performance of the Plan, the Plan may be terminated by Treasury at the end of the period for which the funds are available. Treasury shall notify the Participating Employee at the earliest possible time of the services which will or may be affected by a shortage of funds. No penalty shall accrue to Treasury in the event this provision is exercised, and Treasury shall not be obligated or liable for any future payments due or for any damages as a result of termination under this section.

Section 7.12 Third-Party Beneficiary Rights. The parties do not intend to create in any other individual or entity the status of third-party beneficiary, and this Plan shall not be construed so as to create such status. The rights, duties, and obligations contained in this Plan shall operate only between the parties to this Plan and shall inure solely to the benefit of the parties to this Plan. The provisions of this Plan are intended only to assist the parties in determining and performing their obligations under this Plan.

Section 7.13 Subject to Change. This Performance Compensation Plan is subject to revision in accordance with changes in Wyoming statute.

STATE WYOMING, STATE TREASURER'S OFFICE



Curtis E. Meier, Jr.
Wyoming State Treasurer

**STATE OF WYOMING, ADMINISTRATION AND INFORMATION, HUMAN
RESOURCES DIVISION**



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