Opinion Letter

April 2, 2025

Incentive Metrics Review for FY2025-2026

Prepared for:

Performance, Compensation & Talent Management Committee

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This memo is in response to your request for Global Governance Advisors ("GGA"), in its role as CalPERS' Board compensation consultant, to provide a review of the current metrics included within the CalPERS Annual Incentive program for 2024-2025 and provide insights on potential improvements for Fiscal Year 2025-2026. Similar to past years, this letter will outline GGA's views on the relative weighting between Quantitative and Qualitative performance within the Annual Incentive formula as well as potential changes to the Total Fund/Asset Class investment performance expectations, Enterprise Operational Effectiveness, Investment Office CEM Results, Customer Service and Stakeholder Engagement metrics used within the plan.

Background

The current metrics used within the Annual Incentive program were first introduced as part of a new annual incentive plan for the 2016-2017 fiscal year with shared organizational metrics that aligned all participant incentive awards to the following performance areas:

- Fund Performance
- Enterprise Operational Effectiveness
- Investment Office CEM Results
- Customer Service
- Stakeholder Engagement

CalPERS continues to use these metrics but, in recent years, has proactively reviewed and updated the performance expectations for all metrics to ensure performance levels remain challenging, yet fair to both incentive participants and CalPERS members. For this year, GGA is specifically reviewing Total Fund value add performance relative to benchmark as well as Enterprise Operational Effectiveness ("EOE"). It should be noted that since Fiscal Year 2019-2020, CalPERS has not placed any weighting on Asset Class investment performance for relevant team members working in various asset classes with investment performance measures remaining solely based on Total Fund results. Administratively, there have been some questions around how to integrate 5-year Total Fund value add performance into the annual incentive plan for newly hired professionals or professionals promoted into a position where 5-year Total Fund value add performance is included in their annual incentive. This memo includes an outline of Pros and Cons of potential approaches to deal with this concern.

In general, each of the metrics used within the incentive plan have generally worked for CalPERS, and GGA has not had any concern with their placement and use within the annual incentive program.

GGA understands that the Board is currently working with the CIO to determine whether to adopt a Total Portfolio Approach ("TPA") as it relates to how CalPERS invests its assets on behalf of its members. While moving to a TPA will likely have an impact on how CalPERS designs its incentive plan, the adoption of TPA is not expected until at least Fiscal Year 2026-2027. Further analysis and back-testing of any material changes required to align to a new

TPA will be conducted, where required, during Fiscal Year 2025-2026. Given these potential changes, GGA does not recommend making any substantive changes to the current incentive program and therefore, at this time the current metrics should remain in place for the upcoming year.

Timeline

Overall, GGA supports CalPERS' continued use of these five performance areas and will return to this Performance, Compensation and Talent Management ("PCTM") Committee in June with specific performance metrics and hurdle recommendations for Fiscal Year 2025-2026 based on the results of the attached back testing and stress testing of Total Fund and EOE performance history.

GGA Recommendations for Consideration

Based on market research and rationale outlined in the attached Supporting Appendices, GGA maintains that CalPERS' Annual Incentive metrics are not broken and that only small tweaks are required moving forward. GGA outlines the following recommendations for CalPERS' consideration, which have been broken down into decisions falling under Board authority and those that can be implemented by the CEO and CIO under their Board-delegated authority:

Recommendations to be Considered Under Board's Authority:

1. Consider updating performance hurdles for both Total Fund value add performance and Enterprise Operational Effectiveness based on the results of GGA's historical analysis and general market practices (specific updated hurdles to be provided at the June 2025 PCTM meeting).
2. Review alternatives to integrate 5-year Total Fund value add performance into the annual incentive plan design for eligible newly hired or promoted professionals.
    - GGA notes its preferred approach would be immediate adoption of a full 5-year rolling performance period for the reasons stated in **Appendix D** of this letter.

Recommendations to be Considered by CEO and CIO under Board Delegated Authority:

1. Based on the results of the Board's discussions around the adoption of a TPA approach to investing, consider the impact on CalPERS' needs for its incentive program and adopt suitable changes for staff below the CEO and CIO level to align them with Total Fund investment objectives and other desired performance outcomes in advance of the 2026/2027 fiscal year.

Conclusion and Next Steps

We look forward to discussing this letter at the April meeting and following up with more defined performance metrics and performance expectations at the June meeting. If you have any questions on the contents within this letter, please let us know.

Sincerely,

Global Governance Advisors

Peter Landers Senior Partner	Brad Kelly Partner

cc: Brittany Emmons, CalPERS

Supporting Appendices

Market Research and Rationale Going Forward

Overall, GGA is maintaining consistency in its advice and approach and this memo is intended primarily for information purposes with GGA coming back to the Performance, Compensation and Talent Management ("PCTM") Committee in June with formal recommendations for Fiscal Year 2025-2026 performance metrics and hurdles provided at that time.

Appendix A: Typical Performance Metrics Observed in the Pension Fund Industry

In GGA's consulting experience working with countless pension funds of all sizes across North America, GGA observes the following performance metrics that are commonly found within Annual Incentive programs:

- Relative Total Fund Return vs. Market Benchmark (measured over one and/or rolling multi-year performance periods),
- Relative Asset Class Returns vs. Market Benchmark (measured over one and/or rolling multi-year performance periods),
- Execution against Strategic Plan Objectives (namely for the CEO), and
- Individual Performance Evaluation (typically Qualitative in nature).

In addition to these common metrics, many pension funds also report the use of Customer Service (i.e., Member Services or Investment Office) metrics within their plans as well.

Other metrics that are less commonly found, but used in some cases include:

- Absolute Return objectives for Total Fund and/or Asset Class performance,
- Total Fund Costs,
- Internal Operational Metrics,
- Stakeholder Engagement (as measured through surveys and feedback), and
- Environment-Related, or more broadly, Environmental, Social, and Governance (ESG) Metrics.

Analysis of the types of incentive metrics used at various North American pension funds within CalPERS' peer group is provided in **Appendix F**.

Overall, CalPERS' current performance metrics cover many important areas at the organizational level by focusing on Investment performance (both from a returns and cost perspective) as well as Customer Service and Stakeholder Engagement which are important areas of performance on the Pension Administration side of the organization. The specific areas measured for Customer Service and Stakeholder Engagement around Benefit Payment Timeliness, Customer Satisfaction, as well as meeting the needs of CalPERS' stakeholders and keeping them informed also align with what GGA observes at other North American pension funds. In our opinion, the incorporation of a measure of Operational Effectiveness through the Overhead Operating Costs as a Percentage of Total Operating Costs measure is a market leading practice which provides a way of measuring how the fund is managing its non-investment costs.

GGA has previously discussed with the PCTM and full Board the issue of asset class performance and how it should be strategically implemented and incentivized considering the historical setup of the asset classes and their purpose within the overall investment strategy and portfolio management at CalPERS which focuses less on alpha generation than typical pension funds in the marketplace. CalPERS has historically followed the traditional and widely adopted Strategic Asset Allocation (“SAA”) approach to investing which sets specific target allocations to specific asset classes and encourages the investment team to work towards meeting those asset class weightings over time. Recently, CalPERS has discussed switching away from their current traditional Strategic Asset Allocation approach to the emerging Total Portfolio Approach (“TPA”) which places more emphasis on Total Fund goals and operating within an approved level of risk. This approach is less concerned with meeting certain asset class allocations and is more focused on how an investment contributes to the Total Fund return and risk levels. Under a TPA model, working toward Total Fund goals and breaking down silos (by asset class) is a common objective, which CalPERS has historically promoted in recent years with its move towards the use of Total Fund Value Add performance only within the Incentive program since 2020. If the goal is to move towards a TPA approach to investing, the need to set a specific weighting on Asset Class performance for Asset Class professionals is not nearly as high as it would be should CalPERS continue to maintain its SAA approach to investing. Therefore, the fact that CalPERS is currently below market in terms of its weighting on Asset Class performance within the Annual Incentive design is no longer as much of a concern to GGA as it has been in past years. This observation may change depending on CalPERS’ final decision relating to the adoption of a TPA.

Comparison of CalPERS to Marketplace - Total Fund vs. Asset Class Performance

CalPERS		Pension Fund Marketplace	
Total Fund Performance	Asset Class Performance	Total Fund Performance	Asset Class Performance
100%	0%	33%-40%	60%-67%

While GGA notes its low level of concern with the lack of weighting on Asset Class performance given current discussions around the adoption of a TPA, pensions should always reward participants when performance is high and penalize them when performance is low. An inherent risk in rewarding all investment professionals solely on Total Fund performance is that there is much less ability to differentiate between higher and lower performers on the team or recognize and reward certain asset classes that have materially or disproportionately contributed toward the positive performance of the fund. This will need to be addressed in some form as part of any transition to a TPA investing model.

Pension funds have also focus their staff on Total Fund returns through the adoption of Long-Term Incentive Plans ("LTIPs") that are 100% focused on forward-looking Total Fund investment performance over a longer period (typically 3-4 years in length) for all LTIP-eligible participants. Plans such as this are very effective in collectively aligning investment and executive staff in achieving Total Fund performance expectations over the longer-term, strengthening sustainability and supporting each other toward earning a meaningful LTIP payout at the end of each extended performance period. Our opinion is that CalPERS' LTIP will have this impact going forward as it annually completes the associated long-term performance cycles and provides the potential to generate additional payout opportunities for eligible plan participants.

Appendix B: Weighting between Quantitative & Qualitative Performance

Since the commencement of our engagement with CalPERS, GGA has fielded concerns that too much weighting is placed on Qualitative performance within the CalPERS incentive plan, which is tougher to measure, and reward, realized performance. As well, truly Qualitative measures can possibly increase headline risk because it is often associated with subjective judgments which can possibly open the fund up to criticism and increased levels of scrutiny.

The following table shows the results of our high-level review of the current weighting between Quantitative and Qualitative performance for Annual Incentive-eligible staff at CalPERS.

Quantitative vs. Qualitative Performance at CalPERS – Observations

Participant/Group	Observation
CEO	Quantitative weighting is competitive
CIO	Quantitative weighting is below market
COIO	Quantitative weighting is below market
Most Investment Management Positions	Quantitative weighting is below market
General Counsel	Quantitative weighting is competitive
Chief Actuary	Quantitative weighting is competitive
CFO	Quantitative weighting is competitive
Chief Operating Officer	Quantitative weighting is competitive

More specifically, recent opinions emerged pertaining to a belief that one reason that CalSTRS incentive payouts have been higher than CalPERS over the last few years is because it has a higher proportion of subjective, qualitative elements within its annual incentive plan. As the table below points out, many non-investment roles do have a higher qualitative weighting at CalSTRS, but it should be noted that three top CalPERS' investment roles have a lower weighting on Quantitative performance and therefore Annual incentive payouts are based on a lower level of realized objective performance than CalSTRS for these key investment roles.

Quantitative vs. Qualitative Weighting at CalPERS vs. CalSTRS

Participant/Group	CalPERS		CalSTRS	
	Quantitative	Qualitative	Quantitative	Qualitative
CEO	75%	25%	30%	70%
CIO	60%	40%	75%	25%
Deputy CIO	60%	40%	80%	20%
Investment Management – Most Asset Classes	60%	40%	80%	20%
Investment Management – TFM*, Innovation, Strategic Initiatives, Diversity, Investment Services	60%	40%	60%	40%
Investment Management – Sustainable Investments	60%	40%	55%	45%
Investment Management – Risk Mitigating Strategies	60%	40%	50%	50%
General Counsel	50%	50%	n/a	n/a
Chief Actuary	50%	50%	0%	100%
CFO	50%	50%	20%	80%
COO	50%	50%	15%	85%

* TFM stands for Total Fund Management at CalSTRS. The Senior Investment Director for TFM at CalSTRS is weighted 80% Quantitative and 20% Qualitative, different from other professionals working in TFM.

GGA notes that the investment positions within CalPERS continue to be mismatched to the general market: Primarily because the market practice for investment positions is to place 70% to 80% weighting on Quantitative performance within the Annual Incentive formula with no more than 20% to 30% weighting allocated to the Qualitative performance of the individual in their role. An adjustment to increase the weighting on Quantitative performance would better align these positions with the market, including CalSTRS. However, CalPERS may want to consider holding off on any changes in the weighting between Quantitative and Qualitative performance until a decision is made regarding the possible adoption of a TPA approach to investing. In GGA's experience, certain aspects of performance under a TPA model are harder to quantify and may rely on some judgment, so the current 60/40 split between Quantitative and Qualitative performance may be appropriate under a new TPA investment model.

While the weighting on Quantitative performance is competitive for non-investment roles, GGA continues to highlight our observation that many of the CEO's direct reports (i.e., COO, CFO, General Counsel, etc.) continue to have no weighting on Total Fund investment performance against the benchmark. Typical market practice is to at least apply some weighting (15% to 25%) on Total Fund performance which encourages greater teamwork, diminishes silos between Investment and Non-Investment staff, and aligns all Incentive-eligible staff to Total Fund performance. It also helps maintain a meaningful overall weighting on Quantitative performance within the Annual Incentive formula, making the results less subjective and easier to defend if challenged by plan stakeholders, media, or the general public. This is the case under the traditional SAA model or the potential TPA model for investing. A more detailed breakdown of the weighing on Quantitative vs. Qualitative performance against typical market practice is provided in **Appendix G.**

Appendix C: Investment Performance Expectations

This year, GGA conducted a historical probability analysis of the last 10 years which showed a consistent pattern relating to 5-year Total Fund investment performance expectations, albeit with more positive trends observed in more recent years.

In its work conducted three years ago on Total Fund investment performance expectations, GGA's observation was that the Total Fund hurdles were set with a wide range that hindered its overall effectiveness meaning that CalPERS' investment professionals were usually guaranteed to always achieve Threshold performance but were never able to achieve Maximum performance. This meant that performance tended to consistently fall in between Threshold and Target on an annual basis but never came close to the defined Maximum level. The observed probabilities showed that the original Threshold hurdle was set too low at a level that participants were guaranteed to surpass on an annual basis (even if no value add was generated against the benchmark). Likewise, the Maximum hurdle was so far out of reach that participants were also guaranteed to never meet it on an annual or multi-year basis. Given these observations, a narrower performance range of 0 bps to +10 bps was recommended by GGA and approved by the CalPERS PCTM to bring the probabilities of attainment more in-line with desired levels.

While the changes made three years ago have made achievement of the Maximum performance expectation (i.e., +10 bps above benchmark) more realistic and attainable, there is an acknowledgment that it does not motivate much, if any, alpha generation for the portfolio. Alpha generation is more of a priority to CalPERS moving forward, so incenting investment staff to generate more alpha from the portfolio should be encouraged under the plan.

GGA has conducted probability of attainment analysis for the current 0 to +10 bps performance range with the results summarized on the following page. Using the results of this 10-year lookback analysis and its understanding of current market trends in setting performance hurdles, GGA will be providing its recommendation, if any, for adjustments to the current value add performance range at the June 2025 PCTM meeting.

Appendix C: Investment Performance Expectations

10-Year Performance Lookback Analysis

	Total Fund Performance			
Year	5-Year Performance BPS	2023-24 Incentive Performance Hurdles Threshold	Target	Maximum
2023-24	6	0.00	5.00	10.00
2022-23	18	0.00	5.00	10.00
2021-22	12	0.00	5.00	10.00
2020-21	-13	0.00	5.00	10.00
2019-20	-13	0.00	5.00	10.00
2018-19	-23	0.00	5.00	10.00
2017-18	-7	0.00	5.00	10.00
2016-17	23	0.00	5.00	10.00
2015-16	13	0.00	5.00	10.00
2014-15	34	0.00	5.00	10.00
75th Percentile	**17**	**Historical Annual Probability of Attainment**		
50th Percentile	**9**	**Threshold**	**Target**	**Maximum**
25th Percentile	**-11**	**60.00%**	**60.00%**	**50.00%**

Variance (bps) from Benchmark	Payout Ratio
10	1.50 (150%)
5	1.00 (100%)
0	0.00 (0%)

Observations:

- 5-Year Total Fund performance relative to benchmark has shown signs of improved performance in recent years, beating the benchmark for the last three years after trailing the benchmark for a prior four year period.
- Historical Probability Analysis shows that Maximum performance (i.e., +10 bps above benchmark) is being achieved at a much higher level than the typical desired level of 20% of the time (i.e., 2 years out of 10).
- These observations indicate that potential upward adjustments in the Total Fund value add performance hurdles relative to benchmark could be justified moving forward. An increase in performance expectations would also align CalPERS closer to typical market practice and further incent alpha generation.

Appendix D: Integrating Investment Performance for Newly Eligible Professionals

In GGA's experience, there are three potential ways to incorporate Total Fund value add performance into the Annual Incentive formula when introducing it for the first time or for new participants added to the existing plan design:

1. Phased-In Time Period Building Up to the Desired Performance Period
2. Immediate Adoption of the Desired Performance Period on a Rolling Basis
3. Assume Target Performance for Earlier Years of Performance Period and Actual Performance for Years of Service at CalPERS

Phased-In Time Period Building Up to the Desired Performance Period (CalPERS' Current Approach)

A Phased-In Time Period approach sees affected incumbents incorporate investment performance over time with performance measured based on the time the incumbent is eligible to participate in the plan or when investment performance is first introduced into the plan formula (i.e., if someone has had Total Fund investment performance in the plan for 1 year, 1-year Total Fund investment performance is calculated and used to determine performance within the plan). The rolling time period used to measure performance is gradually increased each year until the desired performance period is reached. In CalPERS' case this would be 5 years, so an affected incumbent would have performance phased-in as follows:

- Year 1: 1-Year Total Fund Performance used
- Year 2: 2-Year Total Fund Performance used
- Year 3: 3-Year Total Fund Performance used
- Year 4: 4-Year Total Fund Performance used
- Year 5: 5-Year Total Fund Performance used
- Year 6 & Beyond: 5-Year Rolling Total Fund Performance used

The rationale for this approach is that the incumbents (especially if they are new to the Incentive Plan) did not have the ability to affect/influence results in previous years and therefore should not be positively or negatively impacted by results before they were subject to Total Fund performance. By building up the performance period measured, incumbents are then only rewarded based on the time period they are able to directly influence results as an affected participant.

This approach is the most complicated to administer as it requires CalPERS to keep track of when performance started in the role and/or when Total Fund investment performance was first introduced to the formula for each incumbent. It also requires the tracking of performance over multiple time periods when determining Annual Incentive payouts until the phase-in period is complete. From a performance culture perspective, this could also lead to different incumbents within the same executive or investment team potentially being incented based on performance over different time periods which could lead to divisions within the team.

In GGA's experience, this phased-in approach is less commonly used, especially in the U.S. pension fund industry, with a minimal number of funds adopting this approach. When adopted, the most common use is not at the Total Fund level, but for select asset classes. This means it would be less applicable in CalPERS' case where only Total Fund investment performance is formally measured under the current plan design for eligible executive and investment team members.

Immediate Adoption of the Desired Performance Period on a Rolling Basis

An Immediate Adoption approach sees affected incumbents incorporate investment performance immediately over the desired performance period on a rolling, backward-looking, basis when investment performance is first introduced into the plan formula (i.e., if someone has had Total Fund investment performance in the plan for 1 year, 5-year Total Fund rolling investment performance is calculated and used to determine performance within the plan). In CalPERS' case the desired performance period would be 5 years, so an affected incumbent would have performance phased-in as follows:

- Year 1 & Beyond: 5-Year Backward Looking Rolling Total Fund Performance used

This approach is the easiest to administer as all eligible incumbents affected by Total Fund performance are measured based on the same rolling performance period, regardless of when they started at the fund or when investment performance first was added into their Annual Incentive plan formula. It aligns with the thinking that everyone is part of the team and should be treated equally, regardless of when they first started in the plan or had investment performance directly impact their Annual Incentive payout. The approach also can make sense if certain incumbents have been with a fund for a longer period of time and indirectly impacted investment results, even if it was not directly included in their Annual Incentive plan formula historically.

The drawback to this approach is that the incumbents (especially if they are new to the Incentive Plan) did not have the ability to affect results in previous years and therefore will be positively or negatively impacted by past results obtained before they were subject to Total Fund and/or Asset Class performance. By moving immediately to the desired rolling performance period, this can be viewed as "unfair" to the affected incumbent.

In GGA's experience, this Immediate Adoption approach is most commonly used in the U.S. pension fund industry, including at CalSTRS, as it is the easiest to administer and treats everyone the same. This makes it a strong alternative for CalPERS to consider moving forward.

Target Performance for Earlier Years of Desired Performance Period & Actual Performance for Years of Service to CalPERS

This approach would apply an assumed Target level of performance for earlier years of the performance period with Actual performance phased-in over time based on an individual's years of service to CalPERS. The assumed Target level of performance is gradually reduced each year up until an individual has been with CalPERS for the desired rolling time period of 5 years. An affected incumbent would have performance phased-in as follows:

- Year 1: 1 Year of Actual Performance & 4 Years of Target Performance used
- Year 2: 2 Years of Actual Performance & 3 Years of Target Performance used
- Year 3: 3 Years of Actual Performance & 2 Years of Target Performance used
- Year 4: 4 Years of Actual Performance & 1 Year of Target Performance used
- Year 5 & Beyond: 5 Years of Actual Performance used

The rationale for this approach is that the incumbents (especially if they are new to the Incentive Plan) did not have the ability to affect results in previous years and therefore should not be positively or negatively impacted by results before they were subject to Total Fund performance. By assuming Target performance for earlier years this allows for the desired performance period to still be used in the calculation, but evens out any over or under-performance in earlier years that an incumbent did not contribute towards. By building up the years of Actual performance used within the formula over time, incumbents are then increasingly rewarded based on the time period they are able to directly influence results as an affected participant. It also provides some level of assurance to the incumbent of a payout under the annual incentive plan as they transition into CalPERS or a new role within CalPERS over time.

This approach is still complicated to administer as it requires CalPERS to keep track of when performance started in the role and/or when Total Fund investment performance was first introduced to the formula for each incumbent and then apply a weighted Actual and Target performance calculation, which may differ between certain professionals who have joined CalPERS at different time periods. It also requires tracking of performance over multiple time periods when determining Annual Incentive payouts until the phase-in period is complete. From a performance culture perspective, this could also lead to different incumbents within the same executive or investment team potentially being incented on performance over different time periods which could lead to divisions within the team. Lastly, the assumption of Target performance for earlier years means that part of the calculation is not based on Actual results achieved for CalPERS members, which may be viewed negatively.

In GGA's experience, this approach has some prevalence in the marketplace but is not the most common.

Appendix E: Enterprise Operational Effectiveness

In recent years, questions arose related to the Enterprise Operational Effectiveness metric used within the Annual Incentive formula:

(i) Should Operating Costs include lump sum retirement payments?

(ii) Should the metric used for incentives be the same as a relevant metric focused on as part of CalPERS's strategic plan?

Following GGA's advice, the Board approved GGA's recommendation to exclude annual lump sum retirement payments from the calculation of Overhead Costs when measuring Enterprise Operational Effectiveness performance as well as to maintain consistency between the operational metric outlined in the new strategic plan at the time and the metric used in the annual incentive award program. The rationale for these changes has been provided in previous memos shared with the PCTM.

Performance against this metric has been fluid in recent years with performance history growing so that there is now 8 years of performance history to analyze. For this reason, GGA conducted a historical analysis update this year to determine the fairness and reasonableness of the current performance expectations and has shared the results of its analysis below.

Using the results of this 10-year lookback analysis and its understanding of current market trends in setting performance hurdles, GGA will be providing its recommendation, if any, for adjustments to the current Enterprise Operational Effectiveness performance range at the June 2025 PCTM meeting.

GGA notes that there have been some questions around the continued applicability of this metric within the annual incentive program at CalPERS and whether an updated performance metric needs to be adopted to take into account performance in this area. Given the potential material updates required to the incentive program if a TPA approach to investing is adopted, GGA is of the view that a more in-depth review of the continued appropriateness of this metric be conducted over the next year and adopted alongside any updates required under a TPA investing approach.

Appendix E: Enterprise Operational Effectiveness

8-Year Performance Lookback Analysis

	Enterprise Operational Effectiveness			
Year	Annual Performance (%)	2023-24 Incentive Performance Hurdles Threshold	Target	Maximum
2023-24	0.67%	1.05%	0.00%	-1.05%
2022-23	-0.38%	1.05%	0.00%	-1.05%
2021-22	-1.09%	1.05%	0.00%	-1.05%
2020-21	-1.00%	1.05%	0.00%	-1.05%
2019-20	-0.65%	1.05%	0.00%	-1.05%
2018-19	0.44%	1.05%	0.00%	-1.05%
2017-18	0.83%	1.05%	0.00%	-1.05%
2016-17	1.74%	1.05%	0.00%	-1.05%
75th Percentile	**0.71%**	**Historical Annual Probability of Attainment**		
50th Percentile	**0.03%**	**Threshold**	**Target**	**Maximum**
25th Percentile	**-0.74%**	**87.50%**	**50.00%**	**12.50%**

Score	Payout Ratio
< -1.05%	1.50 (150%)
-1.05% to < -0.55%	1.25 (125%)
-0.55% to 0%	1.00 (100%)
> 0% to 0.55%	0.75 (75%)
> 0.55% to 1.05%	0.50 (50%)
> 1.05%	0.00 (0%)

Observations:

- Threshold performance has been achieved each of the last 7 years, which is a higher level of attainment than the desired level (i.e., 80% of the time).
- Maximum performance has only been achieved in 1 of 8 years, which is a lower level of attainment than the desired level (i.e., 20% of the time).
- These observations indicate that a potential upward adjustment to the Threshold performance level and potential downward adjustment to the Maximum performance level for EOE would provide a tighter performance range and align closer to the historical level of performance at CalPERS.

Appendix F: Incentive Metrics Used by Identified CalPERS Pension Peers

GGA notes that most of CalPERS' identified pension fund peers provide some level of disclosure on the design of their Incentive programs, which is highlighted in the table below.

	Company	Areas of Performance Considered									
		Total Fund	Asset Class	Personal Performance	Total Fund Costs	Customer Service	Stakeholder Engagement	Operational	Strategic Execution	Environment Related	Other
	CalPERS	√		√	√	√	√	√	√		
	AIMCo	√	√	√		√					√
(1)	BCIMC	√	√	√							
	Caisse	√	√	√			√		√	√	√
(2)	CalSTRS	√	√	√					√		
	CPPIB	√	√	√				√			√
	Florida SBA	√	√	√				√			√
	HOOPP	*	*	*	*	*	*	*	*	*	*
	OMERS	√	√	√			√		√	√	√
	OPERS	*	*	*	*	*	*	*	*	*	*
	OTPP	√	√	√		√		√	√	√	√
(3)	PSP Investments	√	√	√							
	SWIB	√	√	√				√			√
	Texas Teachers	√	√	√		√		√	√		
	VRS	√	√	√		√		√			√
	Prevalence	***100%***	***100%***	***100%***	***0%***	***33%***	***17%***	***50%***	***42%***	***25%***	***67%***

"*" Indicates that information not disclosed.

<u>Notes:</u>

(1) BCIMC does not administer pension benefits as part of its mandate, so the incentive program is largely weighted towards investment performance, even for executives.

(2) Customer Service and Stakeholder Engagement are considered indirectly at CalSTRS as part of Strategic Execution and do not have specific weightings allocated.

(3) PSP Investments professionals are measured against non-investment performance metrics, but specific metrics are not disclosed publicly.

Appendix F: Incentive Metrics Used by Identified CalPERS Pension Peers cont'd.

Performance Area	CalPERS Metric Used	Examples of Performance Metrics
Total Fund	- Total Fund Return Relative to Benchmark - Total Fund Return Relative to CEM US Benchmark	- Total Fund Return Relative to Benchmark - Absolute Total Fund Return - Total Fund Volatility
Asset Class		- Asset Class Return Relative to Benchmark Index - Absolute Asset Class Return
Total Fund Costs	- Total Fund Costs Relative to CEM US Benchmark	- n/a
Customer Service	- Benefit Payment Timeliness - Customer Satisfaction	- Customer Satisfaction with Business Processes - Peer Service Level Comparison Relative to CEM Results - Service Excellence Index - Comprehensive Annual Review of Performance Factors Relating to the Business & Operational Management of the Investment Branch - Survey of the CIO, Deputy CIO & Investments Staff Rating of Implementation Success & Customer Service
Stakeholder Engagement	- Score against Annual Engagement Survey	- Employee Engagement Survey & Employee Turnover - Comprehensive Annual Review of Performance Factors of Investment Office Engagement Strategy & Outreach - Develop major stakeholder relationships around the world - Act as brand protector and ambassador, grow geopolitical footprint

Appendix F: Incentive Metrics Used by Identified CalPERS Pension Peers cont'd.

Performance Area	CalPERS Metric Used	Examples of Performance Metrics
Operational	- Total Overhead Operating Costs as % of Total Operating Costs	- Productivity Relative to CEM Results - Integrated technology, data, and knowledge advantage initiative
Strategic Execution	- Business Objectives	- Performance against Organizational Leadership Priorities - Board Evaluation of Status of Strategic Plan & Objectives - Annual Strategic Execution - Board or CEO Evaluation of Strategic Plan Performance
Personal Performance	- Leadership	- Individual performance against personal objectives - Developing subordinate staff and recruit/retain talent - 360 Leadership Score - Contribution to Short & Long-Term Areas of Focus - Comprehensive Review of Personal Performance Factors
Environmental - Related		- Adopting Best-in-Class Climate-Related Financial Disclosure - Increasing Low-Carbon Assets - Reduce Carbon Intensity of Portfolio - Management of Climate Change Initiatives - Deliver on ESG Initiatives
Other		- Developing organizational structure, systems, and processes - Relationships with Board, Committees, Direct Reports - Economic Development of Local Economy - Culture Initiatives - Enhancing Technological Capabilities - Talent Development Initiatives

Appendix G: Quantitative vs. Qualitative Weighting at CalPERS vs. Market

Participant/Group	CalPERS		Pension Fund Marketplace	
	Quantitative	Qualitative	Quantitative	Qualitative
CEO	75%	25%	40%-70%	30%-60%
CIO	60%	40%	70%-75%	25%-30%
Deputy CIO	60%	40%	70%-75%	25%-30%
COIO	60%	40%	60%-75%	25%-40%
All Investment Management Positions	60%	40%	70%-80%	20%-30%
General Counsel	50%	50%	50%-60%	40%-50%
Chief Actuary	50%	50%	50%-60%	40%-50%
CFO	50%	50%	50%-60%	40%-50%
COO	50%	50%	50%-60%	40%-50%

GGA notes the following points relating to the table above:

- For senior non-investment roles at CalPERS, the weighting on Quantitative performance within the Incentive program is on the lower end, but still within market norms.
- CEO performance is showing some shift towards a higher weighting on Qualitative performance in recent years than what has been observed historically in the pension fund marketplace.
- Investment-related roles at CalPERS tend to have less weighting on Quantitative performance than what is observed in the market.