



Regular Meeting

Item Number 5 – Open Session

Subject: Enterprise Risk Management Report

Presenter(s): Julie Underwood and Phillip Burkholder

Item Type: Information

Date & Time: March 5, 2021 – 15 minutes

Attachment(s): Attachment 1 – ERM Heat Map
Attachment 2 – Risk Score Report

PowerPoint(s): None

PURPOSE

The purpose of this item is to provide the Teachers' Retirement Board (board) with the semi-annual Enterprise Risk Management (ERM) Report reflecting updates as of December 31, 2020.

DISCUSSION/SUMMARY

In the normal course of operations, staff presents this report to the board during the months of May and November, providing updates for the enterprise risk activity occurring during the months of October through March, and April through September, respectively. However, based on discussions at the December 2020 board meeting, regarding reporting of actuarial risks on a more frequent basis, staff has revised the reporting dates of the enterprise risk reporting, so that they will now occur at the March and September board meetings, to reflect updates for the months of July through December, and January through June, respectively. Changing the reporting cycle aligns risk reporting with the calendar and fiscal year ends, and will also provide the board with actuarial risk reporting on a more regular basis, alternating between the actuarial reports, provided to the board every May and November, and enterprise risk reports, provided to the board in March and September.

As part of the ERM framework, CalSTRS Executive Risk Committee (ERC), Risk Champions Network (RCN) and the ERM Team review and discuss enterprise risks and mitigations on a quarterly basis and provide an ERM Report to the board semi-annually. Staff's quarterly review includes enterprise-level risks and sub-risks, while considering internal and external factors which could be catalysts for emerging risks. Management's activities to mitigate risks include assessment

and adjustment of business processes and internal controls as appropriate to avoid risks or ensure effectiveness of ongoing mitigation efforts, identification of risk transfer opportunities and acceptance of risks where the cost of mitigation exceeds the potential benefit.

Staff have accomplished the following risk-related activities during this reporting period:

- Fraud risk inclusion in annual branch risk assessments – The branch risk assessment template was revised to allow for potential branch-level fraud risks and mitigations to be identified, if appropriate.
- Risk Category 11 Third Parties global owner identified – The Office of General Counsel will be the global owner of this new risk category that will establish a Third-Party Risk Management Program, to ensure a consistent, systematic method of governing and controlling third-party risk.
- Key Risk Indicators were realigned with strategic objectives and approved by the ERC.

Through our ERM efforts, CalSTRS monitors 11 risk categories using a heat map and Risk Score Report. The heat map provides management and the board a graphic display of the inherent and residual risks for each risk category, providing a visual summary of the effectiveness of mitigation strategies and activities to manage inherent risks, as shown by the difference between the inherent and residual risk scores. The Risk Score Report provides a detailed visual of the overall inherent and residual risk scores for these risk categories as well as risk scores for the individual sub-risks within each of the categories. The detail allows management and the board to recognize how the sub-risk scores and consideration of priority weightings determine the overall risk category's inherent and residual risk score. Details for both are summarized below.

ERM Heat Map

The heat map as of December 31, 2020, which is provided in Attachment 1, includes an inherent and residual risk score plotted on the map for each of the risk categories based on the following risk score calculation:

$$\text{Risk Score Calculation} = \text{Impact} \times (\text{Probability} + \text{Velocity})$$

Using the risk score calculation allows for inclusion of the velocity metric which considers how fast a risk may impact CalSTRS. The X-axis (Risk Categories) on the heat map displays the titles of the 11 risk categories, above which is a bar for the inherent risk score on the left (the darker gray bar) and a bar for the residual risk score on the right (the lighter gray bar). The black arrows and dotted lines display period-over-period movement of the risk category since December 31, 2020. The Y-axis displays the 50-point Risk Score scale for the 11 risk categories as follows:

Risk Score Key:

	very high	41-50
	high	31-40
	medium	21-30
	low	11-20
	very low	1-10

For this reporting period, all but four categories have residual risk scores within the low or very low risk range (yellow or blue) band of the heat map. The four categories with higher scores are:

- Category 4 – Pension Administration with an overall residual risk score of 24 (medium).
- Category 7 – Information Security with an overall residual risk score of 38 (high).
- Category 10 – Transformational Change with an overall residual risk score of 23 (medium).
- Category 11 – Third Parties with an overall residual risk score of 21 (medium).

There were three risk categories where residual risk changed from the prior period. One category decreased, risk category 6 – Pension Reform, as a result of recent court cases upholding the California Rule and reduced political threats. Two categories increased, risk category 5 – Financial Reporting and risk category 10 – Transformational Change, due to the increasing complexity of reflecting the fair value of new investment types in the financial statements, and potential delays in the Pension Solution Project, respectively. These changes reflect management’s commitment to recognizing and managing enterprise-level risks as necessary. Overall, based on management’s review of identified risks and the associated mitigation efforts, the risks for all 11 risk categories are adequately managed and reflected appropriately on the heat map.

Risk Score Report

Below is a brief summary of the current status for each of the 11 risk categories as of December 31, 2020. The report, which includes the associated sub-risks, is provided in Attachment 2.

Risk Score Report - As of December 31, 2020		Risk Status	
<p>Organizations thrive by taking risks, but falter when risks are not managed effectively. Risks are inherently present in the work we do at CalSTRS, which is why we implement internal controls to mitigate these inherent risks. However, the possibility of residual risk, after all actions are taken to mitigate risk, does exist.</p> <p>This Risk Score Report identifies the inherent risks and residual risks in each of the risk categories at CalSTRS and any corresponding changes since the last reporting period, September 30, 2020.</p>	<p>Inherent Risk Risk without any actions or controls in place to reduce likelihood or impact.</p>	 very high 41-50	41-50
	<p>Residual Risk Risk remaining after implementing actions and controls to remove or manage risk.</p>	 high 31-40  medium 21-30  low 11-20  very low 1-10	

1	Pension Fund - Investments	Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
	Fund performance objectives not achieved as set in the Investment Policy and Management Plan.	22	No Change	18	No Change

Category 1 – Pension Fund – Investments. The overall residual risk score for this category remains at 18 and in alignment with the low risk range (yellow band) of the heat map, which reflects staff’s confidence in the ongoing mitigation efforts to control this long-term risk, including the continued evaluation of liquidity and cash flow needs of the investment portfolio. Staff continue to monitor market conditions and evaluate the COVID-19 impacts on the economic outlook to make tactical decisions. Staff has established policies in compliance with Global Investment Performance

Standards and continue to propose changes to the Sustainable Investment and Stewardship Strategies program to help focus staff’s activities on the most relevant issues that mitigate risk, support long-term value creation, and promote practices that provide for a sustainable financial market. Stewardship activities are the primary means through which CalSTRS seeks to influence meaningful corporate and market change, leveraging our significant public equity ownership stakes in global companies. The Pillars continue to provide necessary support to the Collaborative Model which contributed to Investments outperforming its one-year benchmarks by 65 bps (vs 40 bps target) as of December 2020.

2	Pension Funding - Actuarial	Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
	Actuarial methodologies and assumptions vary from experience.	19	↑1	14	↑4

Category 2 – Pension Fund – Actuarial. The overall inherent risk score for this category increased by 1 point due to an adjustment to the sub-risk weightings and the residual risk score was increased from 10 to 14 to reflect underlying changes and trends that have occurred since the last review of actuarial assumptions, which was completed and presented to the board in January 2020. Since the completion of the last experience study, inflation levels have been below the current assumption of 2.75% per year. Long term, inflation is also forecasted to be lower by many economists. The Federal Government recently lowered the long-term inflation assumption used in the actuarial valuation for Social Security from 2.6% to 2.4% per year. Inflation is a key component for two important economic actuarial assumptions used in the funding of the CalSTRS Defined Benefit Program. It impacts expected payroll growth and the assumed investment return. In addition, interest rates remain at historical low levels. Low interest rates could put pressure on CalSTRS ability to earn its assumed 7% investment return over the long term. Staff will continue to monitor actuarial assumptions as part of its ongoing monitoring of the CalSTRS funding plan. If these trends were to continue in the future, it could be necessary to reduce the investment return and/or the payroll growth assumptions, leading to contribution rate increases for employers, members and the state while also negatively impacting CalSTRS ability to reach funding by 2046.

3	Pension Fund - Contribution Rate	Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
	Insufficient contribution rates to amortize unfunded actuarial liability.	20	No Change	15	No Change

Category 3 – Pension Fund – Contribution Rate. The overall residual risk score for this category remains at 15. Based on current assumptions, the funding plan is still expected to allow the board to adopt the contribution rates needed for the employers and the state to eliminate their share of CalSTRS’ unfunded actuarial obligation by 2046. Formal assessments of contribution rates, funding levels and risks are provided to the board twice a year. These formal assessments are

presented in the spring through the annual actuarial valuation report and in the fall through the Review of Funding Levels and Risks report. At the May 2021 meeting, staff will present the result of the June 30, 2020 actuarial valuation which will serve as the basis for assessing current contribution levels. Based on the results of this valuation, staff will be recommending the board set the employer and the state contribution rates. This will be the first time the board will be asked to exercise its authority to set the employer contribution rate. Note that as part of its proposed budget for California for 2021-22, Governor Newsom is proposing \$583 million in supplemental payments to CalSTRS to help keep the funding plan on track and reduce the state’s share of CalSTRS unfunded liability. The proposal also provides for future supplemental payments using Proposition 2 revenues, if future funds are available, through June 30, 2025. These proposed supplemental contributions are an indication of the state’s commitment to eliminate its share of CalSTRS unfunded liability by 2046 and to keep the CalSTRS funding plan on track.

4	Pension Administration	Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
	Untimely and/or inaccurate delivery of benefits and services due to failure of or inadequate: processes, technology systems, staff actions or data.	35	No Change	24	No Change

Category 4 – Pension Administration. The overall residual risk score for this category remains at 24 and in alignment with the medium risk range (orange band) of the heat map. Staff remain confident in the ongoing transformational change efforts and the large-scale system upgrade, BenefitConnect’s, (Pension Solution Project) ability to mitigate this risk long-term. However, due to the large-scale nature of this project and the current remote working environment due to COVID-19, the residual risk score remains at a medium risk level, even though member benefits continue to be paid timely, benefit applications continue to be processed without delays and customer service levels continue to be maintained. Staff continue to monitor the overall pension administration activities, including service level scores, to ensure foreseeable risks are effectively mitigated. Staff will evaluate any changes to this risk category if the potential delays in the Pension Solution Project, discussed further in Category 10, are realized.

5	Financial Reporting	Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
	Incomplete or inaccurate financial information; weaknesses in internal control jeopardize an unqualified/unmodified audit opinion or result in significant non-compliance with standards.	20	No Change	10	

Category 5 – Financial Reporting. The overall inherent risk score for this category remained unchanged while the overall residual risk score increased by 2 points due to the increasing complexity of reflecting the fair value measurement of new investment types in the financial statements. A third-party consultant will be procured to evaluate and document CalSTRS current process of measuring and reporting the fair value measurement of private investment assets and provide recommendations to CalSTRS on areas of improvement to align the organization with industry best practices and Generally Accepted Accounting Principles.

The overall residual risk score for this category is in alignment with the very low risk range (blue band) of the heat map, which reflects staff’s confidence in the mitigation efforts to control this risk, including the ongoing effectiveness of CalSTRS internal controls program.

6	Pension Reform	Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
Negative impacts to funded status of the plan and members’ retirement security caused by legislative changes or interpretation of existing law.		23	No Change	10	

Category 6 – Pension Reform. The overall residual risk score for this category decreased to 10 and in alignment with the very low risk range (blue band) of the heat map to reflect the reduced risks now that the current challenges to the California Rule have been addressed by the court’s decision in the Alameda County case. Staff continue to closely monitor other court cases for any potential impact regarding vested pension rights. In addition, staff continuously monitor new legislation and initiatives for any changes that may reduce guaranteed benefits or compromise contractual rights to member benefits.

7	Information Security	Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
Loss of information security or compliance violations as a result of unauthorized or unintentional breaches.		49	No Change	38	No Change

Category 7 – Information Security. The overall residual risk score for this category remains at 38 and in alignment with the high risk range (red band) of the heat map. Staff does not anticipate a future decrease in residual scoring due to the current climate of data breaches and highly persistent hackers. However, Information Security remains a constant focus for the organization and staff remain confident in the mitigation efforts to control this risk, including ongoing monitoring of CalSTRS systems and staff education in the remote work environment as a result of the COVID-19 pandemic. Staff will provide a cyber security report at the March closed session board meeting.

8	Operational	Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
Inability to achieve business objectives due to lack of compliance with internal controls, lack of accessibility to technology systems, and/or loss of critical staff knowledge.		31	No Change	20	No Change

Category 8 – Operational. The overall residual risk score for the category remains at 20 and in alignment with the low risk range (yellow band) of the heat map. A sub-risk was added to recognize the risk of CalSTRS not completing the Headquarters Expansion Project (HQE) within the established scope, schedule and budget due to delays with construction (i.e. inspections, approvals

or materials) and the additional costs/timeframes associated with those delays. Residual probability decreased for the existing pandemic related sub-risk due to the organization’s effectiveness of mitigation strategies and activities to manage the pandemic. The combination of the addition of the new HQE sub-risk, the reduction to the pandemic related sub-risk residual probability, and the required sub-risk weighting realignment when a new sub-risk is added resulted in no change to the total category risk score. Staff continues to monitor risks specific to the COVID-19 pandemic, including but not limited to:

- The future state and vision for CalSTRS Blended Work Environment.
- Ensuring a safe and healthy workplace by encouraging staff to take home their monitor, keyboard, docking station, mouse and office chair to enable staff to create effective home offices.
- Exploring new technology platforms and solutions to improve business productivity and member support and service delivery.
- Fostering excellent communication and a high level of employee engagement.

9	Reputational	Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
	Loss of confidence in CalSTRS as a respected fiduciary of public funds.	29	No Change	19	No Change

Category 9 – Reputational. The overall residual risk score for this category remains at 19 and in alignment with the low risk range (yellow band) of the heat map, which reflects staff’s continued confidence that ongoing mitigation efforts effectively control this risk. The remote work environment remains stable and there has been no negative press as communications to members, stakeholders, the board and staff are continuously occurring. Contributions continue to be received on time, customer service levels remain stable and the investment portfolio’s liquidity is more than adequate for benefits to be paid timely.

10	Transformational Change	Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
	CalSTRS is unable to accomplish major transformational change initiatives.	29	↑1	23	↑2

Category 10 – Transformational Change. The overall inherent risk score for this category increased by 1 point while the overall residual risk score increased by 2 points to reflect potential delays in the Pension Solution Project, due to delays in testing milestones, including a higher number of defects identified than originally anticipated and slower than planned execution and defect resolution rate.

These delays will continue to impact downstream activities (such as Functional Rollout 3 and the BusinessDirect Retrofit project) and resource availability. The projects contractor, CGI, is currently performing a root cause analysis. Once completed, CalSTRS and the oversight consultants will evaluate CGI’s proposal for achievability, considering the impact to CalSTRS resources. Progress will continue to be closely monitored against any revised project schedules and goals. Staff will provide an additional update to the board on the projects progress at the March board meeting.

11	Third Parties	Inherent Risk Score	Inherent Period Change	Residual Risk Score	Residual Period Change
	There is a risk that CalSTRS fails to appropriately manage risks associated with third parties which could result in operational disruption, financial loss, reputational damage, compliance violations or failure to reach strategic goals.	32	No Change	21	No Change

Category 11 – Third Parties. The overall residual risk score remains at 21 and in alignment with the medium risk range (orange band) of the heat map. Staff does not expect a decrease in residual risk until establishment of the Third-Party Risk Management Program. The Office of General Counsel will be the global owner of this new risk category that will establish a Third-Party Risk Management Program to ensure a consistent, systematic method of governing and controlling third-party risk. Additional sub-risks will be phased into the category as the Third-Party Risk Management Program progresses. Staff will provide updates on mitigation efforts to reduce risks associated with third parties as the implementation of the program progresses.

Risk Oversight

The board has a fiduciary responsibility for CalSTRS’ enterprise-wide risk oversight. CalSTRS’ staff provides the board with many different channels of risk related reporting, in addition to this report, to ensure there is a comprehensive approach and framework to anticipate, identify, analyze, prioritize and manage key risks. The reports include, but are not limited to:

- Review of CalSTRS Funding Levels and Risks report
- Independent Auditors Report on Internal Control over Financial Reporting and on Compliance and Other Matters
- Update on Suspended Death Benefits Cases report
- Chief Executive Officer and Chief Investment Officer board reports
- Project reporting for Pension Solution, Headquarters Expansion and the Collaborative Model projects
- Information Security reports

Ongoing Monitoring

Staff is continuously monitoring all risk categories as our remote work environment continues, including the effect to the Strategic Plan and project deliverables. We are also keeping up to date on world events, including the pandemic, and social unrest. Any additional risks will continue to

be mitigated to ensure the continuity of CalSTRS' operations, while maintaining the ERM framework at the program level, and cultivating a positive risk culture.

Over the next reporting period, the ERM program will continue to mature the program by revising and launching the fifth annual all-staff Risk and Internal Controls Awareness online training, validating branch and enterprise level risk mitigations, developing enterprise level risk appetite statements and coordinating its efforts with other organizational assurance functions.

Summary

Since the September 30, 2020 Enterprise Risk Report was presented to the board in December 2020, staff continue their efforts to recognize, assess and address enterprise-level risks, including emerging risks that may impact CalSTRS ability to accomplish its strategic goals and project deliverables, and are taking the necessary actions to manage those risks.

Overall, with the ongoing risk mitigations put in place, including those associated with the COVID-19 pandemic, the risk profile at CalSTRS continues to remain stable. Further, staff believes the current mitigation efforts in place are effective in reducing the inherent risk levels for each risk category as shown on the heat map.