



Regular Meeting

Item Number 17 – Open Session

Subject: Enterprise Risk Management Report

Presenter(s): Phillip Burkholder & Lynn Bashaw

Item Type: Information

Date & Time: September 14, 2023 – 15 minutes

Attachment(s): Attachment 1 – ERM Heat Map

Attachment 2 – Risk Score Report

PowerPoint(s): Enterprise Risk Management Report

Item Purpose

The purpose of this item is to provide the Teachers' Retirement Board (board) with the semi-annual Enterprise Risk Management (ERM) Report reflecting the current risk landscape and updates as of June 30, 2023.

Recommendation

This is an information item only.

Executive Summary

Since the December 31, 2022, ERM Report was presented to the board in March 2023, staff continue their efforts to identify, assess and mitigate enterprise-level risks, including emerging and existential risks, that may impact CalSTRS' ability to accomplish its strategic goals, objectives and project deliverables and are taking the necessary actions to manage those risks.

Overall, half of the 10 risk categories have a residual risk above the low or very low risk range compared to the last reporting period which had six risk categories above the low or very low risk range. During this reporting period, staff adjusted the overall risk rating for three risk categories. While the Pension Funding Investments risk category saw a reduction of its inherent and residual risk scores (taking it from the medium risk range to the low-risk range for residual risk), the Operational and Reputational risk categories saw a slight increase in the inherent risk scores. The frequent movement of these risk categories on the heat map displays the dynamic

nature of the current risk environment. While the risk environment continues to shift, staff remain confident that with the ongoing risk mitigations in place and its ongoing efforts to assess and recognize emerging and existential risks, CalSTRS will be able to continue to deliver on its mission. Staff will continue to identify and report on opportunities to mature the ERM Program to ensure the organization remains prepared for current and future risks.

Overall, based on management’s review of identified risks and the associated mitigation efforts, the risks for all 10 risk categories are adequately managed and reflected appropriately on the ERM Heat Map.

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

- The Annual Enterprise Risk and Compliance training was completed by staff with 100% compliance.
- The annual branch risk assessments were completed for fiscal year ended June 30, 2023.
- The semi-annual State Leadership Accountability Act Implementation Plan was submitted to the Department of Finance on June 20, 2023.
- Assessed the Weaver Consulting recommendations to mature the ERM program and further define the ERM framework and developed a multiphase implementation plan, (which will be presented to the Audits and Risk Management Committee in November 2023).

Background

As part of the ERM framework, CalSTRS Executive Risk and Compliance Committee, Risk Champions Network and the ERM team review and discuss enterprise-level 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 and existential risks. The board is also provided with a list of emerging and existential risks that management evaluates and monitors, as a regular item in the Chief Executive Officer’s report, at every board meeting, except for the two meetings that staff normally provide this semi-annual ERM Report to the board.

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, deployment of resources as necessary and identification of risk transfer opportunities and acceptance of risks where the cost of mitigation exceeds the potential benefit.

Discussion

Through ongoing ERM efforts, CalSTRS monitors 10 risk categories and their respective sub-risks using an enterprise risk matrix which generates the data for the ERM Heat Map and Risk Score Report. The ERM Heat Map provides management and the board a graphic display of the inherent and residual risks for each risk category. The visual overview shows the effectiveness of mitigation strategies and activities to manage inherent risks, as revealed by the difference

between the inherent and residual risk scores. The Risk Score Report provides a more detailed summary 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. The specifics for each report are described below.

ERM Heat Map

The ERM Heat Map as of June 30, 2023, which is provided in Attachment 1, includes an inherent and residual risk score plotted on the map for each of the 10 risk categories based on the following risk score calculation:

Risk Score Calculation = Impact x (Probability + Velocity)

The risk score calculation includes impact which gauges the potential severity of the risk for the organization, probability which rates how likely the risk is to occur and a velocity metric which considers how fast a risk may impact CalSTRS. The X-axis (Risk Categories) on the ERM Heat Map displays the 10 risk categories. Above each category is a bar depicting the inherent risk score on the left (the darker gray bar) and a bar depicting the residual risk score on the right (the lighter gray bar). The dotted lines and black arrows reflect, if any, period-over-period movement of the risk category since the prior reporting period. The Y-axis displays the 50-point risk score scale for the 10 risk categories as follows:

Risk Score Key:

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

During this reporting period, half of the risk categories have residual risk scores above the low or very low risk range (yellow or blue) band of the heat map. In total, there are five risk categories with scores medium or higher ranges:

- Category 4 - Pension Administration with an overall residual risk score of 25 (medium).
- Category 6 - Information Security with an overall residual risk score of 38 (high).
- Category 8 - Reputational with an overall residual risk score of 22 (medium).
- Category 9 - Transformational Change with an overall residual risk score of 33 (high).
- Category 10 - Third Parties with an overall residual risk score of 21 (medium).

In addition, there were three risk categories that experienced a risk score change from the prior period. The three categories with period over period changes are:

- Category 1 – Pension Funding Investments: displays a decrease in both the overall inherent and residual risk scores to reflect successful completion of the Pillars project established to support implementation of the CalSTRS Collaborative Model.
- Category 7 – Operational: displays an increase in the overall inherent risk score to reflect the combination of two sub-risks and the removal of one additional sub-risk associated with the operationalization of the Pillars Project which was established to support implementation of the CalSTRS Collaborative Model. In addition, a reevaluation of the remaining sub-risks resulted in their reweighting, with particular emphasis placed on the human capital sub-risks.
- Category 8 – Reputational: displays an increase in the overall inherent risk scores to reflect the removal of an existing sub-risk and the reweighting of the sub-risk referencing implementation of transformational efforts. Staff removed the sub-risk related to hiring individuals with misrepresented qualifications after adequately reducing this risk through the implementation of robust mitigations.

Additional details regarding the changes described above, as well as the overall comments for each risk category, are provided in Attachment 2 – Risk Score Report.

Emerging and Existential Risks

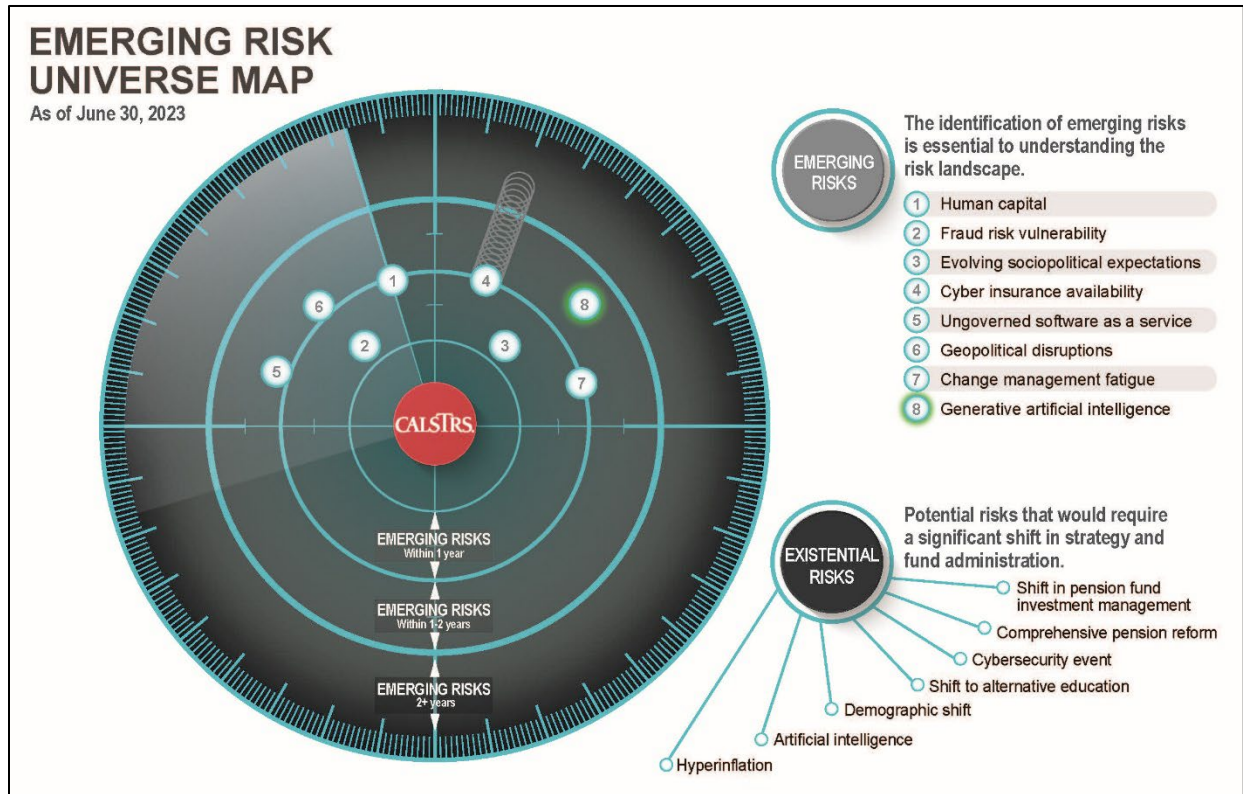
As staff continue to mature the ERM Program, one area of focus is to continually evolve the identification and assessment of emerging and existential risks (see definitions of emerging and existential risks in the March 2022 [Enterprise Risk Management Report](#).) Every reporting period, staff regularly assess potential risks and estimated timeframes of impacts to the organization.

The Emerging Risk Universe Map provided below, has been revised to show the emerging risk landscape as of June 30, 2023. As mentioned in the July 2023 CEO report, staff continue to explore the effects of generative artificial intelligence (AI), such as ChatGPT, to enhance understanding of both the risks and benefits of this new technology and its potential impact on CalSTRS business operations. As a result of this effort, Generative AI has been added to the emerging risk section of the map within a one-to-two-year potential impact to the organization. As geopolitical disruptions could include an increase in the cost of computing if the China-Taiwan tensions increase, staff have removed the cost of computing spike emerging risk, recognizing it as a subset of the geopolitical disruptions emerging risk. Other changes to the map include the removal of ESG opposition as investments and communications staff are actively managing this risk as part of the organization’s focus on being a sustainable investor.

Commercial real estate was removed because it is no longer emerging but rather a risk that is currently managed in both the investment portfolio and lease options for 100 Waterfront. Staff also removed inflationary pressures because this is no longer emerging, and the mitigations have been operationalized. Finally, due to the frequency and severity of cybersecurity events, cyber insurance costs may continue to rise and the level of insurance may decrease as insurers have to pay more frequent and higher claims. As a result, staff moved this emerging risk into the 1-year timeframe on the Emerging Risk Universe Map. Staff continue to conduct bow tie analyses (a

scenario analysis process to identify where new or enhanced controls may be worthwhile) to determine the potential severity of these topics and whether mitigation currently exists and if so, did any new or enhanced mitigations need to be added.

Figure 1



Ongoing Monitoring

Staff continuously monitor all risk categories and any effects to the strategic plan and project deliverables. We also stay well-informed with national and world events, including the economic trends, social and political unrest as well as the ongoing pandemic. Any additional risks will continue to be managed 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, staff will continue to identify and consider emerging and existential risks that need further assessment, validate branch and enterprise-level risk mitigations, and continue coordination efforts with other organizational assurance functions.

Strategic Plan Linkage: Goal 1: Trusted stewards - Ensure a well-governed financially sound trust fund. (FY 2022-25 Strategic Plan).

Board Policy Linkage: Board Governance, Section F. Risk Management Policy.
