



Regular Meeting

Item Number 6 – Open Session

Subject: Enterprise Risk Management Report

Presenter(s): Phillip Burkholder

Item Type: Information

Date & Time: September 1, 2022 – 10 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, 2022.

Recommendation

This is an information item only.

Executive Summary

Since the December 31, 2021 ERM Report was presented to the board in March 2022, 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.

During this reporting period, staff adjusted the risk rating for four risk categories and for the first time, a majority of the risk categories have a residual risk above the low or very low risk range. This is primarily due to the volatile financial markets, recent increases in staff turnover and delays in the Pension Solution Project. The frequent movement of several 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 have accomplished the following risk-related activities during this reporting period:

- The annual Risk and Internal Controls Awareness Training was completed by staff with 100% compliance.
- The annual Branch Risk Assessments were completed for fiscal year ended June 30, 2022.
- Qualitative and quantitative metrics were identified to support and measure the ERM Program’s effectiveness and maturity.
- The semi-annual State Leadership Accountability Act Implementation Plan was submitted to the Department of Finance on June 17, 2022.

Background

As part of the ERM framework, CalSTRS Executive Risk Committee (ERC), Risk Champions Network (RCN) 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. In addition, commencing July 2022, the board is also provided with a list of the 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 risk 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, 2022, 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:

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

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, for the first time a majority 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 six categories with scores medium or higher ranges:

- Category 1 - Pension Funding-Investments with an overall residual risk score of 21 (medium).
- 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 7 - Operational with an overall residual risk score of 21 (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 four risk categories that experienced a risk score change from the prior period. The four categories with period over period changes are:

- Category 1 - Pension Funding-Investments: displays an increase in both the inherent and residual risk scores to reflect the increased volatility of the global financial markets.

- Category 7 – Operational: displays an increase in the residual risk score to reflect the upturn in turnover, which has increased to 12.1% for the fiscal year ended June 30, 2022. This represents a 75% increase from June 30, 2021.
- Category 8 – Reputational: displays an increase in the inherent risk score to reflect the delays related to the Pension Solution Project.
- Category 9 - Transformational Change: displays an increase in both the inherent and residual risk score because of the recalculation of scoring to reflect the delays related to the Pension Solution Project.

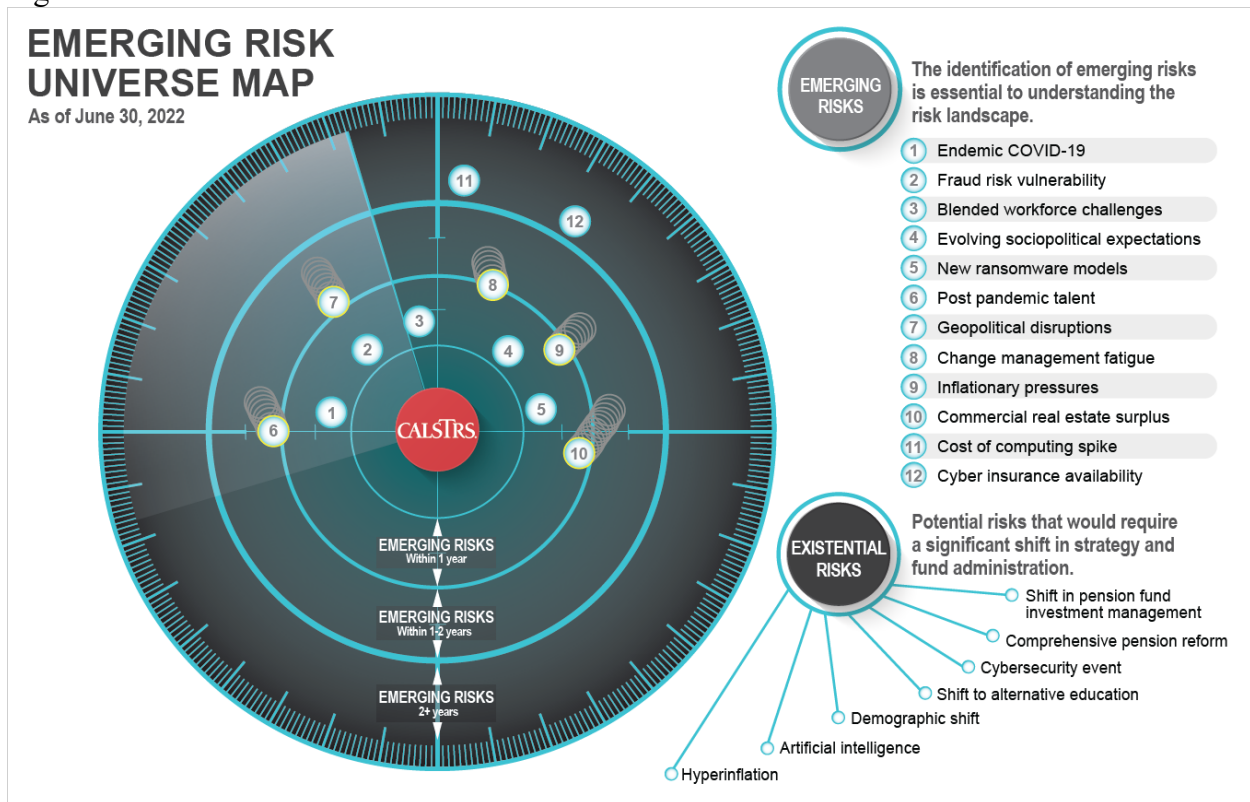
Additional details regarding the changes described above, as well as the overall comments for each risk category, are provided in Attachment 2 – Risk Score Report.

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. At the March 2022 board meeting, staff presented the definitions of emerging and existential risks in the [Enterprise Risk Management Report](#). Since the last reporting period, staff regularly assess potential risks and estimated timeframes of impacts to the organization. The Emerging Risk Universe Map has been revised to show emerging risk movement as of June 30, 2022. See Figure 1 on the next page.

Staff will continue to regularly evaluate emerging and existential risks to determine whether any of these risks require active mitigations, revision to existing mitigations, active monitoring for future consideration or no action needed until the next identification cycle. For this reporting period, staff have explored topics such as, blended workforce challenges, change fatigue and shift to alternative education with the risk champions and senior leadership. Bow tie analyses (a process to identify where new or enhanced controls may be worthwhile) were conducted to determine the potential severity of these topics and whether mitigation currently existed and if so, did any new or enhanced mitigations need to be added. Also, the ERM team is in the process of assessing potential fraud risk vulnerabilities to CalSTRS and launched a fraud risk assessment survey to senior leadership for consideration and feedback. Once completed, an update on the results of this assessment will be provided to the board.

Figure 1



In addition, staff has evaluated the current risk environment and determined that five emerging risk timeframes have increased in velocity to within a year. This movement is represented on Figure 1 as a series of circles. Following are the six risks that have shifted in velocity:

- Emerging risk 6 post pandemic talent – movement shifted as a result in the increase in staff turnover.
- Emerging risk 7 geopolitical disruptions – movement shifted because of the ongoing war in Ukraine, other international tensions and resulting supply chain issues.
- Emerging risk 8 change management fatigue – movement shifted as project timelines are reconsidered in conjunction with the new strategic plan.
- Emerging risk 9 inflationary pressures – movement shifted as we begin to observe increased inflation and the potential for recession.
- Emerging risk 10 commercial real estate surplus – movement shifted as less companies are in the need of office space due to an increase of fully remote work in the private sector.

Finally, staff have identified an emerging risk regarding the potential difficulties in securing future cyber insurance due to rising costs and limited offerings, as well as possible legislation barring the payment of cyber related ransom. These items will be further explored by Information Security Office and discussed with the board at a future time.

Ongoing Monitoring

Staff is continuously monitoring all risk categories and any effects to the strategic plan and project deliverables. We are also keeping up to date on 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: Ensure a well-governed financially sound trust fund. (FY 2019-22 Strategic Plan).

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