CalPERS & COVID-19: Preparedness & Resiliency for Our Employer Partners

April 8, 2020
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*Chief Executive Officer*

Dan Bienvenue  
*Deputy Chief Investment Officer, Total Portfolio*

Scott Terando  
*Chief Actuary*
Michael Cohen  
Chief Financial Officer

Renee Ostrander  
Chief, Employer Account Management

Brad Pacheco  
Deputy Executive Officer, Communications & Stakeholder Relations
CalPERS’ COVID-19 Priorities

- Communication
- Member and Employee Safety
- Serving Members and Employers
- Managing Investments
- Paying Benefits
Three Key Priorities

1. Investment risk
2. Employer affordability
3. Climate risk
Better Prepared than 2008

Positioned to mitigate risk and capitalize on investment opportunities

**Investments**
- Healthy liquidity position
- Diversified portfolio and asset allocation
- Total fund perspective

**Employers**
- 7% discount rate
- Shortened amortization to 20 years
- Additional payments by the State and many public agencies
$355.62 billion current assets

- 4% current investment returns

Strategic asset allocation

- Global Equity - Market Cap Weighted: 35%
- Global Equity - Factor Weighted: 15%
- Private Equity: 8%
- Fixed Income - Long Treasuries: 10%
- Fixed Income - Long Spread: 15%
- Fixed Income - High Yield: 3%
- Real Asset: 13%
- Liquidity: 1%
Prepared for the Market Downturn

June 2019
Investment Committee

Mitigating Drawdowns

June 17, 2019
Yu (Ben) Meng, Ph.D.
Chief Investment Officer, CalPERS

What “Pain” Does a Drawdown Inflict?
S&P 500 Total Returns versus Liabilities from 2007 - 2012

Developing an Action Plan

What do we do during a drawdown?

1. Meet all of our required cash flow obligations
2. Assess and understand impacts of drawdown across the portfolio
3. Maintain our desired risk exposures
4. Opportunistically seek to deploy capital / dry powder

What do we NOT do during a drawdown?

1. Succumb to common investment behavioral biases
2. Allow deviation from pre-determined plan without a strong justification
# Reaction to COVID-19 in the Public Markets

## Percentage Change in Benchmark through March 31, 2020

<table>
<thead>
<tr>
<th>Market Segment</th>
<th>1 Day</th>
<th>5 Day</th>
<th>1 Month</th>
<th>Calendar YTD</th>
<th>Fiscal YTD</th>
<th>Since S&amp;P 500 Peak on 2/19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Equities - Market Cap Weighted</td>
<td>-0.55%</td>
<td>3.58%</td>
<td>-14.49%</td>
<td>-22.44%</td>
<td>-15.45%</td>
<td>-24.35%</td>
</tr>
<tr>
<td>Global Equities - Factor Weighted</td>
<td>-1.24%</td>
<td>4.76%</td>
<td>-11.93%</td>
<td>-18.15%</td>
<td>-13.05%</td>
<td>-20.54%</td>
</tr>
<tr>
<td>High Yield Corporate Bonds</td>
<td>0.66%</td>
<td>7.01%</td>
<td>-10.37%</td>
<td>-12.42%</td>
<td>-8.88%</td>
<td>-13.13%</td>
</tr>
<tr>
<td>Long Spread Bonds</td>
<td>0.05%</td>
<td>2.52%</td>
<td>-4.67%</td>
<td>-1.61%</td>
<td>1.87%</td>
<td>-3.92%</td>
</tr>
<tr>
<td>Long US Treasury Bonds</td>
<td>-0.97%</td>
<td>1.35%</td>
<td>5.22%</td>
<td>17.22%</td>
<td>20.02%</td>
<td>11.08%</td>
</tr>
<tr>
<td>Liquidity / Cash equivalents</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.12%</td>
<td>0.35%</td>
<td>1.26%</td>
<td>0.16%</td>
</tr>
</tbody>
</table>
Unprecedented Monetary & Fiscal Response to COVID-19

Growing Concern Over Coronavirus Through the Month of February

2/19: S&P Reaches Peak

3/3: Fed Cuts 50 basis points in Emergency Rate Cut

3/13: President Declares State of Emergency

3/15: Fed cuts rates to 0-0.25%, announces $700 billion in Quantitative Easing (QE)

3/18 Senate Passes $104 billion COVID-19 bill


3/25: Senate Passes $2 trillion CARES Bill

S&P 500 Index Price

Chicago Board of Exchange Volatility Index Price (VIX)
Have a Plan & Follow the Plan

Following our agreed plan from June 2019 on what to do during a drawdown:

- Meet all of our required cash flow obligations
- Assess and understand impacts of drawdown across the portfolio
- Maintain our desired risk exposures
- Opportunistically seek to deploy capital / dry powder

Ensuring we do NOT deviate from our June 2019 plan:

- Succumb to common investment behavioral biases
- Allow deviation from pre-determined plan without a strong justification
How Investment Losses are Amortized – Public Agencies

Public Agency Contributions

- Today
- June 30, 2020
  - Fiscal Year Returns Locked-in
- July 2020
  - Returns Announced
- Public Agencies 2022-23
- 5-year ramp
- 20-year UAL Amortization
- 2026-27
- 15 years of full payments
- 2041-42
School Contributions

School payments are shifted forward one year

Today

June 30, 2020
Fiscal Year Returns Locked in

July 2020
Returns Announced

Schools 2021-22

5-year ramp

20-year UAL Amortization

2025-26

15 years of full payments

2040-41
### Simplified Example — Investment (Gain)/Loss Amortization

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Value of Assets at 6/30/2019</td>
<td>$10,000,000</td>
</tr>
<tr>
<td>Investment Earnings</td>
<td>2.00%</td>
</tr>
<tr>
<td>Discount Rate</td>
<td>7.00%</td>
</tr>
<tr>
<td>Investment (Gain)/Loss %</td>
<td>5.00%</td>
</tr>
<tr>
<td>Investment (Gain)/Loss $</td>
<td>$500,000</td>
</tr>
</tbody>
</table>

### Amortization Payments for Investment (Gain)/Loss

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2022-23</td>
<td>$12,516</td>
</tr>
<tr>
<td>FY 2023-24</td>
<td>$25,032</td>
</tr>
<tr>
<td>FY 2024-25</td>
<td>$37,548</td>
</tr>
<tr>
<td>FY 2025-26</td>
<td>$50,064</td>
</tr>
<tr>
<td>FY 2026-27 to FY 2041-42</td>
<td>$62,580</td>
</tr>
</tbody>
</table>
## Volatility of Returns with Potential Funded Status of Plans

<table>
<thead>
<tr>
<th>Plan</th>
<th>7%</th>
<th>0%</th>
<th>-5%</th>
<th>-10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miscellaneous</td>
<td>73.7%</td>
<td>68.9%</td>
<td>65.6%</td>
<td>62.0%</td>
</tr>
<tr>
<td>Safety</td>
<td>70.2%</td>
<td>65.6%</td>
<td>62.0%</td>
<td>59.0%</td>
</tr>
<tr>
<td>Schools</td>
<td>70.1%</td>
<td>65.6%</td>
<td>62.3%</td>
<td>59.0%</td>
</tr>
<tr>
<td>PERF</td>
<td>72.1%</td>
<td>67.3%</td>
<td>64.0%</td>
<td>60.6%</td>
</tr>
</tbody>
</table>
Potential Employer Contributions – Sample Misc. Plan

Employer Rate Impact - Misc. Plan - With Various Projected Returns for 2019-20, 7% after
Potential Employer Contributions – Schools

Employer Rate Impact - Schools Pool - With Various Projected Returns for 2019-20, 7% after

- 2020-21
- 2022-23
- 2024-25
- 2026-27
- 2028-29
- 2030-31
- 2032-33
- 2034-35
- 2036-37
- 2038-39
- 2040-41

7% 0% -5% -10%
### Funded Status of Individual Plans

#### Estimated Number of Plans with Funded Ratio <60%

<table>
<thead>
<tr>
<th>Investment Returns</th>
<th>Number of plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>7%</td>
<td>16</td>
</tr>
<tr>
<td>0%</td>
<td>68</td>
</tr>
<tr>
<td>-5%</td>
<td>171</td>
</tr>
<tr>
<td>-10%</td>
<td>381</td>
</tr>
</tbody>
</table>
Shifting Landscape of Employer Finances

- Revenues sharply reduced
- Core work impacted
- Future revenues jeopardized
- Increased public health costs
- Reduced staffing
- Some plans better funded than others
Options Exist, But Are Limited

Operating principles

• Actuarial soundness for active and retired members

• Pensions must be funded and benefits paid

Pension laws govern decision-making

• COLAs

• Benefit design changes

Finding ways to be flexible

• Case-by-case reviews for employers with financial necessity

• Contact CalPERS to explore options
What You Need to Know – Personnel & Reporting

- Retired Annuitants
  Exec Order N-25-20
- Membership
- Reporting of Employee Data
- Fee Waivers
Financial Assistance Inquiries

Pension Contract Management Team:
pensioncontracts@calpers.ca.gov

Prefunding Trusts:
CEPPT4U@calpers.ca.gov

Operational Questions

888 Employer Contact Center:
888-CalPERS

Employer Response Team:
ERT@calpers.ca.gov
800-253-4594

Inquiries and Connections:
CalPERS_Stakeholder_Relations@calpers.ca.gov

References and Resources

Employer FAQs:
www.calpers.ca.gov

PA/School Reference Guide

Virtual Training Available
Q & A
Our Commitment to You

- Ongoing communication
- Listening to employers
- Partnerships
- Here for you