EAST BAY MUNICIPAL UTILITY DISTRICT

Update on Employees' Retirement System

Finance/Administration Committee
June 23, 2020

Agenda

- Actuarial Valuation Data
- Contribution Rates
- Portfolio Performance
- Portfolio Impacts of COVID-19
- CEM Benchmarking Results
- Environmental, Social, Governance Update

Actuarial Valuation Data (as of June 30, 2019)

EBMUD

Select Plan Data	Pension	Health Insurance Benefit	Total	Overall Annual Change
Market Value (MVA)*	$1.79b	$41m	$1.83b	+$80m
previous year data	*$1.71b*	*$37m*	*$1.75b*	----
Valuation Value (VVA)	$1.78b	$40m	$1.82b	+$103m
previous year data	*$1.68b*	*$36m*	*$1.71b*	----
Funded Ratio (VVA)	75.9%	33.0%	73.8%	+0.6%
previous year data	*75.6%*	*29.7%*	*73.2%*	----
Unfunded Liability (VVA)	$564m	$82m	$646m	+$18m
previous year data	*$543m*	*$85m*	*$628m*	----

* *Total MVA as of June 05, 2020: $1.88 billion*

Contribution Rates

- Adopted for FY21

Employer Rate	1955/1980 Plan	2013 Plan
Pension	*37.86%*	*31.24%*
HIB	*5.32%*	*4.92%*
Total	**43.18%**	**36.16%**

- Total Rates Unchanged from FY20
  - Actuarial calculations allowed for slightly lower contribution rates
  - Conservative recommendation was adopted

Portfolio Performance (as of March 31, 2020)

EBMUD

Asset Class	1-year	3-year	5-year	10-year	20-year
Domestic Equity	-9.1%	4.7%	6.1%	10.4%	5.9%
International Equity	-15.5%	-2.5%	-1.2%	2.9%	3.4%
Fixed Income	4.3%	3.7%	2.9%	4.0%	5.2%
Covered Calls	-9.0%	1.5%	4.1%	--	--
Real Estate	-5.1%	3.4%	5.1%	10.6%	--
Total Portfolio	**-6.6%**	**2.8%**	**4.1%**	**7.6%**	**5.7%**
*Peer Group Percentile Ranking**	*72*	*42*	*35*	*10*	*--*

**Peer group includes select public funds with over $1billion in assets.*

Portfolio Impacts of COVID-19

- Increased volatility in markets
  - Started in March with a large drop
  - Partial rebound in April, sustained in May
- Measurement date will determine effect
  - Contribution rates, unfunded liability, and funded ratio determined from June 30 data
  - FY20 data affects FY22 contribution rates

Portfolio Impacts of COVID-19

- Added information in Destinations
  - Annual finance update to Retirement System members

Destinations
Retirement Roadtrip
EBMUDERS MEMBER NEWS

ISSUE 4 • WINTER/SPRING 2020

Dear Members,

Destinations is published periodically to provide information about the **EBMU** **Retirement System (ERS)** to its members. In this issue, you will find definition trends, and information about the ERS. We hope you find this information hel would like to hear from you on topics of interest for future editions.

Active/Passive Portfolio Composition

The ERS investment portfolio provides funding for retirement benefits. The ERS Investment Policy provides details on the allocation of the portfolio to different asset classes, as described below and detailed in Issue 3 of Destinations. When hiring Investment Managers, the Retirement Board can choose managers that actively or passively manage the funds allocated to them, as described below. The decision between active and passive management depends on multiple factors, including the likelihood of outperformance from active management in a particular asset class and the additional cost of active management. In 2018, the Retirement Board adopted a new asset allocation based on an updated asset/liability study. After setting the new allocation, the Retirement Board decided to increase the passively-managed share of the ERS investment portfolio. The active/passive composition of the ERS portfolio in effect from 2014 to 2018 and the new active/passive composition are shown at right. The Retirement Board has moved from less than 15% of the portfolio being passively-managed before the last reallocation to almost 50% of the portfolio after the last reallocation.

Key Topic Items

Asset Classes – Investment options are divided in different asset classes. Examples of asset classes ar domestic equity (U.S. stocks), international equities (non-U.S. stocks), fixed income (bonds), and real e

Actively-Managed – Active Investment Managers must manage their funds under predetermined guidelines. The managers are measured against a benchmark representative of those guidelines, and retain discretion on the composition of their investment portfolio. Their performance can be higher or lower than that of the benchmark and fees for active management are generally higher than fees for passive management.

Passively-Managed – Passive Invest must manage their funds to match benchmark and have limited discretion on the composition of their investment portfolio. Their performance is expected to match that of the benchmark and fees for passive management are generally lower than fees for active management.

COVID-19 and its effects on the ERS

With the recent news about market fluctuations as a result of the COVID-19 pandemic, we wanted to add to this issue of Destinations some perspective on how those events affect the ERS. While daily changes in the values of stocks and bonds receive outsized media attention, the ERS is a long-term investor and as such has a long-term outlook on performance. While the value of its investments is affected by the daily changes in the broader market, the portfolio positioning, which is determined by the asset allocation (see Issue 3 of Destinations for details), is the primary driver of long-term performance.

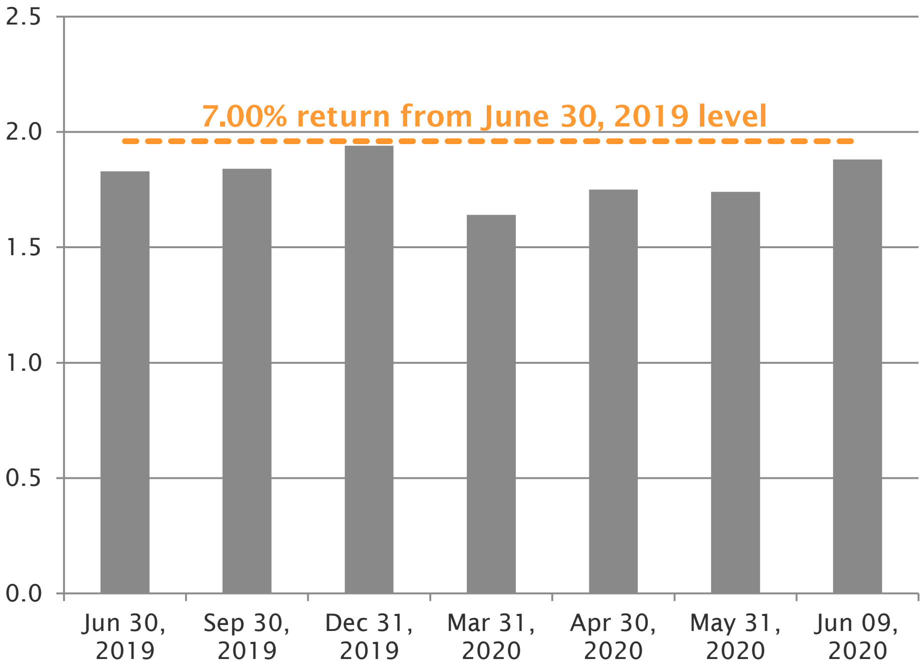
Staff, the ERS' investment consultant, and the Retirement Board monitor the value and performance of ERS assets periodically. However, the actuarial effect is only measured at the end of each fiscal year, in the actuarial valuation (see Issue 3 of Destinations for details). As mentioned above, periods of underperformance like the one in the first few weeks of March 2020 have a negative effect on the ERS' funded ratio and would increase contribution rates if they lasted until the next valuation date on June 30, 2020. This negative effect would also be partially offset by the outperformance observed between July and February and affected by any upcoming performance in April, May, and June 2020. The impact to the valuation comes from the total change between each annual valuation date.

However, changes in market values do not directly change the level of benefits received by vested beneficiaries. This is a key feature of defined benefit plans such as the ERS versus defined contribution plans such as 401(k) plans. If the ERS portfolio does not meet its assumed rate of return on a valuation date, the funded ratio may be lower, the unfunded liability may grow, and the required contribution rates by the District may go up, but vested beneficiaries will continue to be eligible to receive the same level of benefits that they are entitled to under their respective applicable formula.

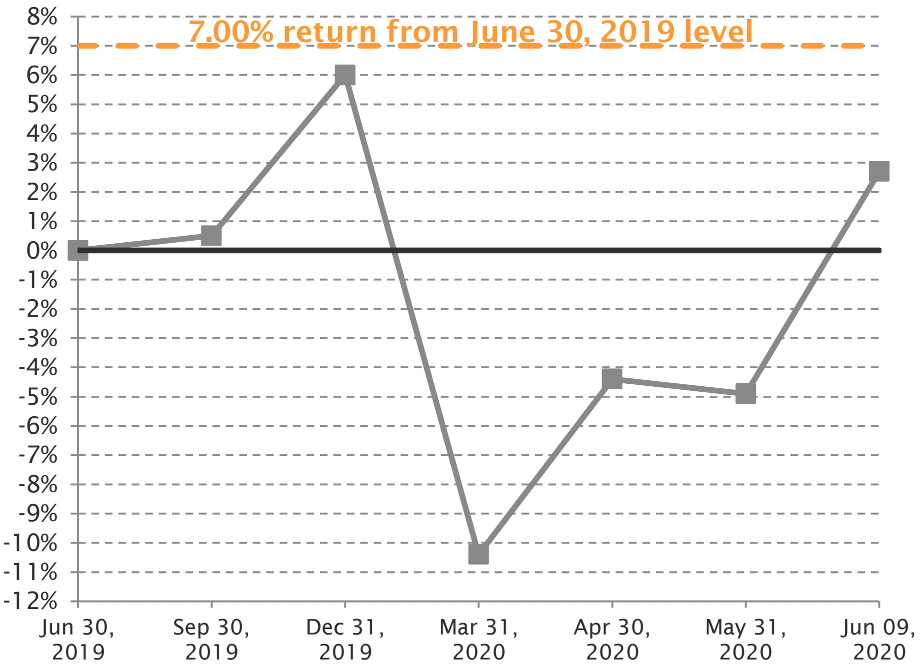
Portfolio Impacts of COVID-19

EBMUD

Portfolio Size (in $billion)



Cumulative change since June 30, 2019



CEM Benchmarking

- 5th year of participation
- Calendar year 2018 data used
- Benchmarking
  - Against 162 other U.S. pension funds
  - Including 54 public funds

CEM Benchmarking

Results

Calendar Year 2018 Data	Retirement System	Median	Above/Below Median
Net returns	-4.3%	-4.0%	Below median
Investment costs	26.1bps	52.4bps	Below median
Net value added from active management	+0.3%	+0.0%	Above median
Asset Risk*	10.8%	9.5%	Above median
Asset-liability Risk*	12.2%	11.6%	Above median

* *In CEM survey, covered calls are categorized as equity vs. as hedge against equities and no private investments allocation for the ERS increases volatility since private investment values are updated less frequently.*

Environmental, Social, and Governance (ESG) Engagement

- Proxy Voting Update
  - First Annual Review presented by providers to the Retirement Board in November 2019
    - Glass-Lewis votes the Retirement System's proxies for actively-managed accounts
    - Northern Trust votes the Retirement System's proxies for passively-managed accounts
    - FY19 proxy voting data
      - 5,190 meetings
      - 54,099 proposals

Environmental, Social, and Governance (ESG) Engagement

- Retirement Board approved support for two global initiatives at the July 2019 meeting
- First Annual ESG Survey of Investment Managers presented to the Retirement Board in March 2020
  - Most Retirement System investment managers
    - Are PRI signatories
    - Integrate ESG factors and investing is affected by ESG
    - Have ESG policies/guidelines
  - Quite a bit of variability in implementation, reporting, and staffing

Summary

- Performance in FY19 below assumptions
  - Funded ratio still increased
- Conservative management
  - Contribution rates held steady again
  - CEM benchmark results
- Challenges in FY20
  - Increased volatility
  - Equity underperformance, especially internationally
  - Uncertain outlook