

Pension Management Plan (Pension Obligation Bonds)

October 19, 2021

## Overview



## Your Pension Liability

## CalPERS Annual Pension

 Current Year
## Normal

 CostsBenefits earned this year by employees

## \% of Payroll \$6.7 Million

## Past Due Payment



Benefits previously earned by employees + retirees

## Fixed \$ Amount

 \$20 Million
## Unfunded Accrued Liability (UAL)

\$822
Million

## -\$296,767,000

|  | $\$ 525$ <br> Million |
| :---: | :---: |
|  |  |

64\% Funded

Million

CaIPERS Actuarial Report
June 30, 2020
©UFI

## Amortization Bases for FY 22-23

|  | MISCELLANEOUS PLAN |  |  |  |  | SAFETY PLAN |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Year | Term | FY21-22 | FY22-23 |  | Year | Term | FY21-22 | FY22-23 |
| 1 | 2003 | 3 | 3,311,022 | 2,602,545 | 1 | 2008 | 18 | $(7,730,250)$ | $(7,659,591)$ |
| 2 | 2004 | 4 | $(337,037)$ | $(282,542)$ | 2 | 2009 | 19 | 6,616,540 | 6,573,399 |
| 3 | 2006 | 6 | 568,067 | 510,094 | 3 | 2010 | 20 | 1,292,627 | 1,287,247 |
| 4 | 2009 | 9 | 3,399,633 | 3,204,010 | 4 | 2011 | 21 | 1,546,424 | 1,543,283 |
| 5 | 2009 | 19 | 4,084,212 | 4,057,582 | 5 | 2012 | 22 | 2,440,208 | 2,439,973 |
| 6 | 2009 | 9 | 120,475 | 113,542 | 6 | 2012 | 22 | 76,383,053 | 76,375,701 |
| 7 | 2010 | 20 | $(2,830,122)$ | $(2,818,342)$ | 7 | 2013 | 23 | 44,577,316 | 44,483,117 |
| 8 | 2011 | 11 | 4,399,142 | 4,221,638 | 8 | 2014 | 14 | 14,574,146 | 9,236,828 |
| 9 | 2011 | 21 | $(2,561,182)$ | $(2,555,981)$ | 9 | 2014 | 24 | $(21,630,676)$ | $(21,626,974)$ |
| 10 | 2012 | 22 | 1,864,336 | 1,864,157 | 10 | 2015 | 25 | 20,918,924 | 20,952,349 |
| 11 | 2012 | 22 | 9,815,468 | 9,814,524 | 11 | 2016 | 16 | 8,124,206 | 8,074,530 |
| 12 | 2013 | 23 | 33,280,610 | 33,210,282 | 12 | 2016 | 26 | 21,456,777 | 21,797,859 |
| 13 | 2014 | 14 | 12,785,316 | 12,350,411 | 13 | 2017 | 17 | 9,324,623 | 9,452,200 |
| 14 | 2014 | 24 | $(23,260,388)$ | $(23,256,407)$ | 14 | 2017 | 27 | $(9,275,019)$ | $(9,547,233)$ |
| 15 | 2015 | 25 | 17,416,967 | 17,444,796 | 15 | 2018 | 18 | 4,074,841 | 4,206,376 |
| 16 | 2016 | 16 | 5,043,546 | 5,012,707 | 16 | 2018 | 18 | 16,297,624 | 16,823,709 |
| 17 | 2016 | 26 | 17,763,922 | 18,046,301 | 17 | 2018 | 28 | 2,626,697 | 2,738,341 |
| 18 | 2017 | 17 | 4,855,531 | 4,921,963 | 18 | 2019 | 19 | 3,547,588 | 3,461,052 |
| 19 | 2017 | 27 | $(10,611,338)$ | $(10,922,772)$ | 19 | 2019 | 19 | 1,602,989 | 1,678,944 |
| 20 | 2018 | 18 | 2,358,931 | 2,435,077 | 20 | 2020 | 20 |  | 3,109,564 |
| 21 | 2018 | 18 | 9,514,177 | 9,821,294 | 21 | 2020 | 20 |  | 8,053,429 |
| 22 | 2018 | 28 | $(4,518,403)$ | $(4,710,452)$ |  |  |  | \$ 196,768,638 | \$ 203,454,106 |
| 23 | 2019 | 19 | $(1,668,542)$ | $(1,627,841)$ |  |  |  | ADP | \$ (5,000,000) |
| 24 | 2019 | 19 | 1,001,202 | 1,048,643 |  |  |  | Demographic | 3,989,501 |
| 25 | 2020 | 20 |  | 879,937 |  |  |  | Investment - 4.70\% | 14,082,492 |
| 26 | 2020 | 20 |  | 6,029,063 |  |  | \$- | \$ 282,564,183 | \$ 294,868,334 |

$\$ 85,795,545 \quad \$ 91,414,228$

## Miscellaneous Plan - "Layer Cake" Amortization Bases: CalPERS of loans @ 7.0\%



## Annual Payments UAL Liability Total UAL Payments = \$557 Million

UAL Amortization Payment Schedules


## Increase in Annual UAL Payments Cumulative Increase UAL Payments = \$75 Million



## Evaluating Funding Strategies

## Funding Strategies

1 Allocation Between Funds

- Sewer Fund \& Power Fund

2 Use of Reserves \& 1-Time Monies

- 0.68\% LAIF vs 7.0\% CalPERS Discount Rae s

3 Pension Stabilization Fund - 115 Trust
4 Leveraged Refunding

- No current opportunities
(5 Tax-Exempt Exchange
Financing Approache
- Limited Scale (Water \& Power Funds)

6 Pension Obligation Bonds
7 Recycle Savings

## Pension Obligation Bonds / Risks

## 25-Year POB



## 25-Year POB Cash Flow

|  |  | POB Principal | Coupon | Interest | POB Debt Service | CaIPERS UAL Payments |  | Budgetary Savings |  | ided UAL Costs | Savings | NPV Savings |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2023 | 5,260,000 | 1.06\% | 4,427,664 | 9,687,664 | 11,061,556 |  | 1,373,891 |  | - | 1,373,891 | 1,329,577 |
| 2 | 2024 | 10,570,000 | 1.16\% | 8,799,573 | 19,369,573 | 23,660,836 |  | 2,753,539 |  | 1,537,725 | 4,291,264 | 4,018,899 |
| 3 | 2025 | 10,695,000 | 1.50\% | 8,676,961 | 19,371,961 | 25,250,488 |  | 2,751,151 |  | 3,127,377 | 5,878,528 | 5,327,844 |
| 4 | 2026 | 10,855,000 | 1.87\% | 8,516,536 | 19,371,536 | 25,250,162 |  | 2,751,576 |  | 3,127,050 | 5,878,626 | 5,156,080 |
| 5 | 2027 | 11,060,000 | 2.07\% | 8,313,547 | 19,373,547 | 26,282,472 |  | 2,749,564 |  | 4,159,360 | 6,908,925 | 5,864,288 |
| 6 | 2028 | 11,285,000 | 2.34\% | 8,084,605 | 19,369,605 | 26,940,348 |  | 2,753,506 |  | 4,817,236 | 7,570,743 | 6,218,767 |
| 7 | 2029 | 11,550,000 | 2.59\% | 7,820,536 | 19,370,536 | 27,502,068 |  | 2,752,575 |  | 5,378,956 | 8,131,532 | 6,463,966 |
| 8 | 2030 | 11,850,000 | 2.67\% | 7,521,391 | 19,371,391 | 28,193,483 |  | 2,751,720 |  | 6,070,371 | 8,822,092 | 6,786,709 |
| 9 | 2031 | 12,165,000 | 2.79\% | 7,204,996 | 19,369,996 | 28,903,911 |  | 2,753,115 |  | 6,780,800 | 9,533,915 | 7,097,738 |
| 10 | 2032 | 12,505,000 | 2.89\% | 6,865,593 | 19,370,593 | 29,064,583 |  | 2,752,519 |  | 6,941,472 | 9,693,991 | 6,984,129 |
| 11 | 2033 | 12,865,000 | 2.99\% | 6,504,198 | 19,369,198 | 29,193,256 |  | 2,753,913 |  | 7,070,145 | 9,824,058 | 6,849,542 |
| 12 | 2034 | 13,250,000 | 3.14\% | 6,119,535 | 19,369,535 | 28,658,937 |  | 2,753,577 |  | 6,535,825 | 9,289,402 | 6,267,860 |
| 13 | 2035 | 13,670,000 | 3.24\% | 5,703,485 | 19,373,485 | 28,398,022 |  | 2,749,627 |  | 6,274,911 | 9,024,538 | 5,892,743 |
| 14 | 2036 | 14,110,000 | 3.34\% | 5,260,577 | 19,370,577 | 27,726,631 |  | 2,752,535 |  | 5,603,519 | 8,356,054 | 5,280,253 |
| 15 | 2037 | 14,580,000 | 3.44\% | 4,789,303 | 19,369,303 | 26,115,442 |  | 2,753,809 |  | 3,992,331 | 6,746,140 | 4,125,435 |
| 16 | 2038 | 15,085,000 | 3.52\% | 4,287,751 | 19,372,751 | 25,090,159 |  | 2,750,361 |  | 2,967,048 | 5,717,408 | 3,383,566 |
| 17 | 2039 | 15,615,000 | 3.52\% | 3,756,759 | 19,371,759 | 23,990,520 |  | 2,751,353 |  | 1,867,408 | 4,618,761 | 2,645,221 |
| 18 | 2040 | 16,165,000 | 3.52\% | 3,207,111 | 19,372,111 | 23,207,941 |  | 2,751,001 |  | 1,084,830 | 3,835,831 | 2,125,968 |
| 19 | 2041 | 16,735,000 | 3.52\% | 2,638,103 | 19,373,103 | 23,787,132 |  | 2,750,009 |  | 1,664,021 | 4,414,030 | 2,367,519 |
| 20 | 2042 | 17,325,000 | 3.52\% | 2,049,031 | 19,374,031 | 20,690,721 |  | 1,316,690 |  | - | 1,316,690 | 683,444 |
| 21 | 2043 | 17,215,000 | 3.67\% | 1,439,191 | 18,654,191 | 18,656,336 |  | 2,145 |  | - | 2,145 | 1,078 |
| 22 | 2044 | 16,700,000 | 3.67\% | 807,400 | 17,507,400 | 17,511,321 |  | 3,921 |  | - | 3,921 | 1,906 |
| 23 | 2045 | 2,720,000 | 3.67\% | 194,510 | 2,914,510 | 2,917,462 |  | 2,952 |  | - | 2,952 | 1,389 |
| 24 | 2046 | 1,420,000 | 3.67\% | 94,686 | 1,514,686 | 1,515,149 |  | 463 |  | - | 463 | 211 |
| 25 | 2047 | 1,160,000 | 3.67\% | 42,572 | 1,202,572 | 1,207,726 |  | 5,154 |  | - | 5,154 | 2,271 |
| 26 | 2048 | - |  |  | - | 253,021 |  |  |  | 253,021 | 253,021 | 107,880 |
|  |  | \$ 296,410,000 |  | \$ 123,125,607 | \$ 419,535,607 | \$ 551,029,683 | \$ | 52,240,670 | \$ | 79,253,406 | \$ 131,494,076 | \$94,984,281 |

32.2\%

## GFOA Advisory vs. POBs 2.0

1. Complex instruments: swaps, CABs, derivatives, GICs
2. Increase debt burden / reduce flexibility: "soft to hard liability"
3. Not refundable "make-whole" call
4. Extend repayment or finance Normal Costs
5. Stand alone POBs not viewed as credit positive

POB s 2.0


- In-depth Study
- Pension Reform
- Market Evolved

1. Plain Vanilla Fixed Rate Bonds
2. GASB 68 Liability - Balance Sheet
3. 10-year Call
4. Finance UAL Only (same term)
5. Credit Neutral / Plan \& Study +
6. Dollar Cost Averaging / Multiple Strategies / Hedge
7. Reinvestment of POB Proceeds:

Market \& Timing Risk

## Evaluating Outcome of POBs

## 1. UAL Savings

## 2. Plan \% Return

- Standard Refinancing: 7.0\% vs 3.50\%
- Fixed Dollar UAL Payments
- Existing Liability on Balance Sheet
- Actual Budgetary Savings
- Proceeds go to Federated Plan at time of Issuance
- Market Timing Risk
- Leverage Investment Position (50\%):
- increased benefit + return
- Increased liability - return
- Returns during initial years most critical
- Market Timing Risk applies to all investments


## Council Decision Points

## Develop Comprehensive Plan

2017 City Adopted Guidelines for Pension Rate Stabilization Program (PRSP) and OPEB 115 Trust

- Minimum Annual Contribution: \$250,000 Pension /\$250,000 OPEB
- 50\% of excess Budget Reserves over 25\% Fund Balance
- Investment Parameters for OPEB (115) Trust w PARS

Expand current Pension Funding Policies

- Financial metrics/targets:
- Level of reserve and funding target levels
- How to use excess (1-time monies)
- Allocation of Additional Resources (ADPs)
- Potential Funding Solutions
- Funding objectives
- Minimum Savings Levels
- Structuring guidelines


## Appendix

## POB Market



## California POB Issues

## CA Pension Obligation Bonds: 2017-2021

| Agency | Date | Par Value | Agency | Date | Par Value | Agency | Date | Par Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 Corona | 9/27/2021 | 276,710,000 | 29 Downey | 2/9/2021 | 113,585,000 | 57 Montebello | 6/10/2020 | 153,425,000 |
| 2 San Anselmo | 9/15/2021 | 9,285,000 | 30 Monterey Park | 2/2/2021 | 106,335,000 | 58 Fort Ord | 6/10/2020 | 30,405,000 |
| 3 County of Santa Cruz | 9/2/2021 | 124,195,000 | 31 Bonita Sunnyside FD | 2/1/2021 | 5,127,000 | 59 Grass Valley | 6/1/2020 | 18,311,000 |
| 4 Santa Ana | 8/25/2021 | 425,830,000 | 32 El Cajon | 1/13/2021 | 147,210,000 | 60 Ontario | 5/21/2020 | 236,585,000 |
| 5 Commerce | 8/24/2021 | 27,875,000 | 33 Lake Valley FD | 1/1/2021 | 10,952,522 | 61 Larkspur | 5/14/2020 | 18,295,000 |
| 6 Buena Park | 8/17/2021 | 96,385,000 | 34 Ukiah | 12/17/2020 | 49,875,000 | 62 County of Riverside | 5/6/2020 | 719,995,000 |
| 7 Sanger | 8/10/2021 | 19,450,000 | 35 Coachella | 12/8/2020 | 17,590,000 | 63 Carpinteria Valley WD | 4/7/2020 | 23,145,000 |
| 8 San Fernando | 8/5/2021 | 36,525,000 | 36 Penn Valley FD | 12/1/2020 | 1,037,884 | 64 Richardson Bay SD | 2/28/2020 | 2,383,000 |
| 9 Whittier | 8/3/2021 | 133,895,000 | 37 Gardena | 11/24/2020 | 101,490,000 | 65 Pasadena | 2/26/2020 | 131,805,000 |
| 10 Covina | 7/28/2021 | 62,795,000 | 38 Placentia | 11/12/2020 | 52,950,000 | 66 Orange USD | 12/19/2019 | 33,595,000 |
| 11 Redondo Beach | 7/15/2021 | 226,180,000 | 39 Arcadia | 10/27/2020 | 90,000,000 | 67 Monterey Co Reg FD | 12/5/2019 | 20,250,000 |
| 12 Red Bluff | 7/15/2021 | 18,540,000 | 40 Novato Sanitary Dist | 10/13/2020 | 6,467,000 | 68 Pacifica | 10/23/2019 | 9,685,000 |
| 13 Livermore | 7/29/2021 | 12,875,000 | 41 Torrance | 10/12/2020 | 349,515,000 | 69 Hawthorne | 10/8/2019 | 121,865,000 |
| 14 Placer Hills FD | 6/24/2021 | 1,000,000 | 42 Belvedere | 10/1/2020 | 2,323,000 | 70 Marysville | 9/24/2019 | 15,000,000 |
| 15 Turlock Mosquito Abate | 6/22/2021 | 1,100,000 | 43 Borrego Springs Fire | 10/1/2020 | 1,874,111 | 71 Glendora | 9/5/2019 | 64,420,000 |
| 16 El Segundo | 6/9/2021 | 144,135,000 | 44 Azusa | 9/30/2020 | 70,075,000 | 72 Chowchilla | 3/21/2019 | 10,500,000 |
| 17 Montecito FD | 6/7/2021 | 8,263,240 | 45 Town of Fairfax | 9/16/2020 | 9,402,000 | 73 Baldwin Park | 3/6/2019 | 54,085,000 |
| 18 Auburn | 6/3/2021 | 17,165,000 | 46 Pomona | 8/20/2020 | 219,890,000 | 74 Calaveras County WD | 2/1/2019 | 5,665,000 |
| 19 Oceano CSD | 6/1/2021 | 906,000 | 47 West Covina | 7/30/2020 | 204,095,000 | 75 Ridgecrest | 12/18/2018 | 19,955,000 |
| 20 Willows | 5/27/2021 | 8,510,000 | 48 San Bernardino | 7/23/2020 | 5,945,000 | 76 La Verne | 8/15/2018 | 54,265,000 |
| 21 Cental Marin Police Auth | 5/11/2021 | 26,505,000 | 49 San Bernardino | 7/23/2020 | 13,905,000 | 77 County of Tulare | 6/25/2018 | 251,220,000 |
| 22 Corte Madera | 4/29/2021 | 18,955,000 | 50 El Monte | 6/30/2020 | 21,000,000 | 78 Monrovia | 12/13/2017 | 111,545,000 |
| 23 Manhattan Beach | 4/28/2021 | 91,275,000 | 51 Carson | 6/18/2020 | 108,020,000 | 79 Inglewood | 11/14/2017 | 52,795,000 |
| 24 San Benito County WD | 4/1/2021 | 3,016,000 | 52 El Monte | 6/18/2020 | 118,725,000 | 80 Belvedere | 8/25/2017 | 2,655,000 |
| 25 Palos Verdes Library Dist | 4/1/2021 | 5,924,000 | 53 North Co FD | 6/18/2020 | 20,305,000 | 81 Brawley | 7/20/2017 | 16,310,000 |
| 26 Huntington Beach | 3/17/2021 | 363,645,000 | 54 Kensington Police | 6/18/2020 | 4,544,000 | 82 Pomona | 6/29/2017 | 50,475,000 |
| 27 Orange | 3/3/2021 | 285,770,000 | 55 Inglewood | 6/17/2020 | 101,620,000 | 83 Riverside | 5/31/2017 | 31,960,000 |
| 28 Chula Vista | 2/11/20/21 | 350,025,000 | 56 Riverside | 6/11/2020 | 432,165,000 | 84 Town of Fairfax | 1/1/2017 | 3,860,000 |

## Funding Risk Mitigation Policy

- Funding Risk Mitigation Policy seeks to reduce CalPERS Funding risk over time.
- Integrated view of pension assets and liabilities
- Actively managing funding risk through an ALM framework
- When CalPERS significantly outperforms its target, triggers adjustments to
- Discount Rate
- Expected Investment Return
- Strategic Asset Allocation

Determined by the Asset Liability Management Committee:

- CFO, Investment, Finance, Actuarial, Legal, and Stakeholder Relations

| Returns Exceed <br> Discount Rate | Reduce Discount Rate | Reduction Expected <br> Investment Return |
| :---: | :---: | :---: |
| $2.00 \%$ | $0.05 \%$ | $0.05 \%$ |
| $7.00 \%$ | $0.10 \%$ | $0.10 \%$ |
| $10.00 \%$ | $0.15 \%$ | $0.15 \%$ |
| $13.00 \%$ | $0.20 \%$ | $0.20 \%$ |
| $17.00 \%$ | $0.25 \%$ | $0.25 \%$ |

ALM Meeting: November $15^{\text {th }}$ Investment Committee \& November $17^{\text {th }}$ Full Board

* Change will be reflected in Event Year - June 20, 2021 Actuarial Report


## Projected Impact FY 21- 6.80\%



## FY21 UAL <br> \$241 Million (\$53.9 Million)

Normal Costs~ \$683,000 per year
Portion to be paid by employees

|  | FY20 UAL <br> Payments $\mathbf{\$ 2 9 5}$ <br> Million |  | $\begin{aligned} & \text { FY21 Return } \\ & 21.3 \% \end{aligned}$ | Discount Rate 6.80\% | Net Impact | Projected FY21 <br> UAL 6.80\% <br> Discount Rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2023 | 22,123,111 | - | - | - | 22,123,111 |
| 6.80\% | 2024 | 23,660,836 | $(1,706,173)$ | 1,961,475 | 255,302 | 23,916,139 |
| Discount | 2025 | 25,250,488 | $(3,412,345)$ | 1,961,475 | $(1,450,870)$ | 23,799,618 |
| \$20.4 | 2026 | 25,250,162 | $(5,118,518)$ | 1,961,475 | $(3,157,043)$ | 22,093,119 |
|  | 2027 | 26,282,472 | $(6,824,690)$ | 1,961,475 | $(4,863,216)$ | 21,419,256 |
| Milion | 2028 | 26,940,348 | $(8,530,863)$ | 1,961,475 | $(6,569,388)$ | 20,370,960 |
|  | 2029 | 27,502,068 | $(8,530,863)$ | 1,961,475 | $(6,569,388)$ | 20,932,680 |
|  | 2030 | 28,193,483 | $(8,530,863)$ | 1,961,475 | $(6,569,388)$ | 21,624,094 |
|  | 2031 | 28,903,911 | $(8,530,863)$ | 1,961,475 | $(6,569,388)$ | 22,334,523 |
|  | 2032 | 29,064,583 | $(8,530,863)$ | 1,961,475 | $(6,569,388)$ | 22,495,195 |
| 21 | 2033 | 29,193,256 | $(8,530,863)$ | 1,961,475 | $(6,569,388)$ | 22,623,868 |
|  | 2034 | 28,658,937 | $(8,530,863)$ | 1,961,475 | $(6,569,388)$ | 22,089,549 |
| 15\% | 2035 | 28,398,022 | $(8,530,863)$ | 1,961,475 | $(6,569,388)$ | 21,828,634 |
|  | 2036 | 27,726,631 | $(8,530,863)$ | 1,961,475 | $(6,569,388)$ | 21,157,243 |
| (\$74.3) | 2037 | 26,115,442 | $(8,530,863)$ | 1,961,475 | $(6,569,388)$ | 19,546,054 |
| Million | 2038 | 25,090,159 | $(8,530,863)$ | 1,961,475 | $(6,569,388)$ | 18,520,771 |
|  | 2039 | 23,990,520 | $(8,530,863)$ | 1,961,475 | $(6,569,388)$ | 17,421,132 |
|  | 2040 | 23,207,941 | $(8,530,863)$ | 1,961,475 | $(6,569,388)$ | 16,638,553 |
|  | 2041 | 23,787,132 | $(8,530,863)$ | 1,961,475 | $(6,569,388)$ | 17,217,744 |
|  | 2042 | 20,690,721 | $(8,530,863)$ | 1,961,475 | $(6,569,388)$ | 14,121,333 |
|  | 2043 | 18,656,336 | $(8,530,863)$ | 1,961,475 | $(6,569,388)$ | 12,086,948 |
|  | 2044 | 17,511,321 | - | - | - | 17,511,321 |
|  | 2045 | 2,917,462 | - | - | - | 2,917,462 |
| (\$53.9) | 2046 | 1,515,149 | - | - | - | 1,515,149 |
| Million | 2047 | 1,207,726 | - | - | - | 1,207,726 |
|  | 2048 | 253,021 | - | - | - | 253,021 |
|  |  | 562,091,239 | \$ (153,555,536) | \$ 39,229,498 | \$ (114,326,038) | \$ 447,765,201 |
|  |  | 294,868,335 | \$ (74,322,523) | \$ 20,423,870 | \$ (53,898,653) | \$ 240,969,681 |

Projected Impact FY 21-6.75\% + Price Inflator 2.25\%


Normal Costs~ \$1.1 Million per year Portion to be paid by employees


## Base Selection - Cash Flow vs Saviviggs requires Selection of Base when making A ${ }^{-}$

Comparison: Impact of \$1.0 Million ADP


OIIOMEM DESE - MEEIEI Budget / Cash Flow lnnant

LOIIger mase
Greater Total

## POBs 1.0 vs. POBs 2.0

POBs 1.0 vs. POBs 2.0


## Additional Discretionary Payments

City made $\$ 5.0$ million ADP savings $\$ 7.75$ Million Safety Base \#8 was selected to have maximum impact on General Fund budget
\$5.0 ADP - Safety Base \#8 201415 Years
Base \#8
After ADP
Savings

| 1 | 2022 | \$ | 1,465,518 | \$ | 962,738 | \$ | 502,780 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 2023 |  | 1,505,820 |  | 989,213 |  | 516,607 |
| 3 | 2023 |  | 1,547,230 |  | 1,016,417 |  | 530,813 |
| 4 | 2024 |  | 1,589,779 |  | 1,044,368 |  | 545,411 |
| 5 | 2025 |  | 1,633,498 |  | 1,073,088 |  | 560,409 |
| 6 | 2026 |  | 1,678,419 |  | 1,102,598 |  | 575,821 |
| 7 | 2027 |  | 1,724,575 |  | 1,132,920 |  | 591,656 |
| 8 | 2028 |  | 1,772,001 |  | 1,164,075 |  | 607,926 |
| 9 | 2029 |  | 1,820,731 |  | 1,196,087 |  | 624,644 |
| 10 | 2030 |  | 1,870,801 |  | 1,228,979 |  | 641,822 |
| 11 | 2031 |  | 1,922,248 |  | 1,262,776 |  | 659,472 |
| 12 | 2032 |  | 1,580,088 |  | 1,038,002 |  | 542,086 |
| 13 | 2033 |  | 1,217,655 |  | 799,910 |  | 417,745 |
| 14 | 2034 |  | 834,094 |  | 547,939 |  | 286,155 |
| 15 | 2035 |  | 428,516 |  | 281,503 |  | 147,012 |
|  |  |  | 22,590,972 |  | 14,840,613 |  | 7,750,359 |

## Termination Payment

## \$295 Million



## Can I Reduce the Level of Benefits

$?$
Classic Unfunded


## California Rule

- Reduction in pension benefits must be offset by "comparable" benefits.
- Prevented legislative \&ballot-based initiatives
- Recent decisions have more narrowly interpreted



## PEPRA - New Employees

- 2.0\% @ 62 Misc. \&
- 2.7\% @ 57\% Safety
- 50\% Normal


## Tax Exempt Exchange

## Tax-Exempt Bonds

1. Identify "Pay-Go"

Capital Project(s)
2. Issue Tax-Exempt Bonds to finance CIP

## Budget Exchange

3. Reallocate Capital Project Budget to UAL
4. Pre-Pay UAL Bases with similar term

- UAL payments pay bond debt service
- 7.0\% CaIPERS liability effectively refinanced using tax-exempt rates ~2.0\%


# Projected Impact of FY21on UAL 

Projected UAL Payment Schedule FY21
CalPERS $21.3 \%$ Return $+6.80 \%$ or $6.50 \%$ Discount Rate


Discount Rate 6.50\% \$51 Million Increase in UAL

Net Impact ~(\$23.2) Million credit

## Discount Rate 6.80\%

\$20.4 Million Increase in UAL
Net Impact ~(\$53.9) Million credit

## Axiom: Investment Returns exceed

POB ${ }^{\text {Axiom: Rate of Return Exceeds Rate on }}$ POBs Oversimplifies - Market Timing is Critical

Portfolio Outcome: 11-year POB - 6.46\% Return


Portfolio Outcome: 11-Year POB 6.44\% Return


Compare ending portfolio balance two similar returns:

- 6.46\% Loss Initial Years = \$20 Million
- $6.44 \%$ Gain Initial Years $=\$ 108$ Million


## Monte Carlo Simulation

Monte Carlo Simulation
Ending Portfolio Balance


Key Issue w/ Basic Risk Analysis:
$\neq$
Avg. Return Compound (year-over-year return)

Timing of returns is critical to ending portfolio value

- Compares ending portfolio balance: POBs vs UAL payments
- 10,000 different (random) scenarios
- CaIPERS Return over 25-year period

WUFI $\cdot$ Expect Return $=7.0 \%$ (Std. Dev. $=8.25 \%$ )

## Monte Carlo Simulation

Probability of Success
Expected NPV Portfolio Balance:

+ \$26 Million @ 7.0\%
- Positive (Break-Even) = 79\%
- Ending Portfolio Balance POBs > UAL Payments

Probability of Success + 100bps Expected NPV Portfolio Balance: + \$15 Million @ 7.0\%

- Positive (Break-Even) $=67 \%$


Random interest rates each year (25 years) used to determine ending portfolio values

Monte Carlo Simulation: Distribution of Ending Portfolio Values


## PENSION OBLIGATION BONDS

- Validation Required
-+ 4-6 Months
- Invest with CaIPERS
-Credit Rating: AA
- GFOA Advisory
- No Borrowing limit


## CERTIFICATES OF PARTICIPATION

- No Validation Required
- No Waiting
- Dollar Cost Averaging
- Credit Rating AA-
-Leveraging City Assets
- Capacity


## Growing Trend

UAL Amortization Payment Schedules


## ZOUFI

## Validation Process

## Validation Process

## City Council - Approval to Proceed with Validation Filing

- Selection of Bond Counsel
- Trust Indenture / BPA
- Resolution Authorize sale of POBs
- Amount \& Good Faith Estimate

1. File Validation Action with Alameda Superior Court
2. Receive Order for Publication of Summons from the Court

- 1-2 weeks

3. Publication in Local Newspaper

- 21 consecutive days

4. Waiting Period to File Petition

- 2-3 weeks (COVID even longer)

5. Clerk enters hearing for Default Judgement

- 15 days

6. Hearing for Default Judgement
7. 30-Day Appeal Period

## Pension Analysis

 (Pension Management Plan)Bonding Process
Validation Process

- Council workshop
- Stakeholder/Community Meetings

May

| June | City Council Approval |
| :---: | :---: |
|  | - Commence Validation Process |
|  | Develop Pension Funding Plan |
| July | - Leveraged Refunding <br> - Use of Reserves <br> - Tax-Exempt Exchange <br> - Determine POB Structure |
| Aug | - Draft Pension Funding Policy <br> - Risk Analysis / Monte Carlo |
| Sept | - City Council 1on1s <br> - Stakeholder/Community Meetings |
| Oct | City Council Approval <br> - Underwriter + Pension Funding Policy |
| Nov | City Council Approval <br> - Approves POS \& Amount of POBs |
| Dec | Sale of POBs <br> - Marketing / Investor Outreach <br> - Pre-Pricing / Sale <br> - Closing |

1.Indenture, Resolution \& BPA
2.Review Documents
3.Staff Report

## Underwriter RFP

- Written Responses
- Interviews


## POS \& Rating Presentation

- $1^{\text {st }}$ Draft POS
- Conference Call
- $2^{\text {nd }}$ Draft POS
- $1^{\text {st }}$ Draft Rating
- Conference Call
- Rating Presentation


## Legal Counsel RFP

- Written Responses
- Interviews, if necessary


## Court Filing Process

- File Validation with Court
- Receive Order for Publication
- Publish - 21 days +10 days


## Waiting Period - File Petition (2-6 Weeks)

## Enter Default Judgement

- Clerk Schedules Hearing
- Hearing for Default Judgement


## Appeal Period (30 Days)

## Case Studies

厄UFI

## Fund Allocation - ADP

## \$83.3 Million UAL



## City of Azusa:

ADP Enterprise Reserves

- \$10.7 Million
- Misc. Base \#15,13 (45\%)
- 27 Years
- Savings = \$25.1 Million

POBs - \$70.0 Million

- \$33 Million UAL Savings
- NPV Savings = \$26 Million 37\%
- TIC = 3.10\%

Combined NPV Savings

- \$42 Million
$17 \%$ of UAL =
\$12 Million


## Leveraged Refunding

## \$490,000 <br> Up-Front Savings

## Base

 \#15
## \$1.0 Million UAL Savings

### 2.0X

## City of Arcadia:

 2001 \& 2011 TABs- \$10.3 Million Refunding \$4.9 Million Savings
- $10 \%$ share of savings
- \$498,000 up-front ADP
Safety Base \#15 (25 Years)
- \$1.0 Million Savings


## Tax Exempt Exchange + ADP

## \$56 Million UAL

Tax-Exempt Exchange


## 85\% Funding Target

## Placer County Water:

- Merged Bases
- Restructure cash flows
- ADPs from Reserves
- \$11.5 Million
- Base \#9 (85\%)
- Savings = \$28.9 Million
- Bonding Capacity / Coverage
- Tax-Exempt Exchange
- \$10.2 million (20 years)
- Base \#9,10,4,21
- Savings = \$11 Million
- Combined Savings
- \$40 Million


## CaIPERS Investment Risk

## \$206 Million UAL

## El Cajon:

- Market Timing Risk: Issue Multiple POBs
- Rising \% rates between series
- Select longer bases on POB 1- \$150 Million
- POB 2 shorter maturity, less \% risk - \$55 Million



# Effect of Leverage \& Compounding 



+ \$120 Million ADP


| $\mathbf{6 6 \%}$ Funded | $\$$ |
| :---: | ---: |
| $\mathbf{1 0 0 \%}$ Funded | $23,359,878$ <br> $35,393,142$ <br> $\mathbf{5 2 \%} \%$ |

\$233
Million


## CaIPERS

Investment Return
\$354 Million
-10\%


| $\mathbf{5 2 \%}$ | $\$(12,033,264)$ |
| :---: | ---: |
| $66 \%$ Funded | $\$(23,359,878)$ |
| $100 \%$ Funded | $(35,393,142)$ |

## CaIPERS Pension Costs

## Miscellaneous

| UAL Payment $=22.9 \%$ |
| :---: |
| Employee Share $=7.4 \%$ |
| Employee Concession = 1.7\% |
| Normal Costs $=10.3 \%$ <br> $($ Net $=8.6 \%)$ |

## 3 Components:

- UAL Payment
- Fixed \$ Annual Payment
- Catch-up or "past due" payments
- Employee Share of Normal Cost EPMC
- Paid by employees
- \% of Payroll

Base Salary 100\%

Safety (Police)

UAL Payment = 48.6\%

Employee Share = 9.5\%
Employee Concession $=5.7 \%$
Normal Costs = 20.8\%
(Net = 15.1\%)

Base Salary 100\%

- Benefits Earned during the Year
- \% of Payroll


## Primary Contributing Factors

## California League of Cities <br> 29188Bensigg suatibaticitrs <br> Reoprt 50 to 3.0\% @ 50 <br> -AB 616 (2001) Miscellaneous <br> 2.0\% @ 55 to 2.7\% @ 55

## Measures to Address Pensions

## California League of Cities <br> 2018 Pension Sustainability Regabßallot Measure <br> Concessions <br> Pension <br> Stabilization Fund <br> Pension Management Plan + Pension Funding Policies

## Pension Obligation Bonds

1. Local Ballot Measure F-2018

- ½ Sales Tax (9.75\%)
- \$4.2 Million

2. Bargaining Unit Concessions

- 1.7\% Misc. Classic Normal Costs
- 5.7\% Safety Classic Normal Costs

3. Service Delivery \& Levels of Service

- Outsource ?????

4. Pension Stabilization Fund 115

- \$6.9 Million Balance
- 75\% of excess above 25\% General Fund Reserve

5. Develop Plan + Funding Policies Address Pension Liabilities

- In process

6. Pension Obligation Bonds (POBs)

- Under consideration


## Started at Peak of Market - Implemented....



## CaIPERS Cannot Out Earn the

円...I_I_…
CaIPERS Investment Return Impact on Funded Status


## CaIPERS 2018 Strategic Asset Allocation



## Develop Pension Management Plan \& Implementation

## CaIPERS Return



## Likelihood of Political Solution

## Local Agency UAL

## Local <br> Agencies <br> (PERF A) \$80 Billion 70\%



## State has Greater Burdens

## State Employee UAL

 \$58.7 Billion 67\%Regents \$10.9
Billion 85\%

School Pool (PERF B) \$23.6 Billion

OPEB \$18.6 Billion Pay-go


Combined Unfunded Liabilities = (\$300 Billion)

2017 State CaIPERS Actuarial Valuation \$6.3 Billion Annual Contribution

2018 State OPEB Actuarial Valuation Discount Rate $=4.25 \%$ since pay-go NOL @ 7.0\% = \$56 billion
\$2.2 Billion "Pay-Go" Benefit Payments

2017 CaISTRS Actuarial Valuation 2\% @ 60/62
\$325 million MPP (OPEB) pay-go

2017 University California Regents
Actuarial Valuation 27\% of payroll -\$3
billion annual contribution.

## Regulatory Disclosure

Disclosure of Conflicts of Interest and Legal or Disciplinary Events. Pursuant to Municipal Securities Rulemaking Board ("MSRB") Rule G42, on Duties of Non-Solicitor Municipal Advisors, Municipal Advisors are required to make certain written disclosures to clients and potential clients which include, amongst other things, Conflicts of Interest and any Legal or Disciplinary events of Urban Futures, Inc. ("UFI") and its associated persons.

Conflicts of Interest. Compensation. UFI represents that in connection with the issuance of municipal securities, UFI may receive compensation from an Issuer or Obligated Person for services rendered, which compensation is contingent upon the successful closing of a transaction and/or is based on the size of a transaction. Consistent with the requirements of MSRB Rule G-42, UFI hereby discloses that such contingent and/or transactional compensation may present a potential conflict of interest regarding UFI's ability to provide unbiased advice to enter into such transaction. This conflict of interest will not impair UFI's ability to render unbiased and competent advice or to fulfill its fiduciary duty to the Issuer. It should be noted that other forms of compensation (i.e. hourly or fixed fee based) may also present a potential conflict of interest regarding UFI's ability to provide advice regarding a municipal security transaction. These other potential conflicts of interest will not impair UFI's ability to render unbiased and competent advice or to fulfill its fiduciary duty to the Issuer.

Other Municipal Advisor Relationships. UFI serves a wide variety of other clients that may from time to time have interests that could have a direct or indirect impact on the interests of another UFI client. These other clients may, from time to time and depending on the specific circumstances, have competing interests. In acting in the interests of its various clients, UFI could potentially face a conflict of interest arising from these competing client interests. UFI fulfills its regulatory duty and mitigates such conflicts through dealing honestly and with the utmost good faith with its clients. If UFI becomes aware of any additional potential or actual conflict of interest after this disclosure, UFI will disclose the detailed information in writing to the issuer or obligated person in a timely manner.

Legal or Disciplinary Events. UFI does not have any legal events or disciplinary history on UFI's Form MA and Form MA-I, which includes information about any criminal actions, regulatory actions, investigations, terminations, judgments, liens, civil judicial actions, customer complaints, arbitrations and civil litigation. The Issuer may electronically access UFI's most recent Form MA and each most recent Form MA-I filed with the Commission at the following website: www.sec.gov/edgar/searchedgar/companysearch.html.

There have been no material changes to a legal or disciplinary event disclosure on any Form MA or Form MA-I filed with the SEC. If any material legal or regulatory action is brought against UFI, UFI will provide complete disclosure to the Issuer in detail allowing the Issuer to evaluate UFI, its management and personnel.

