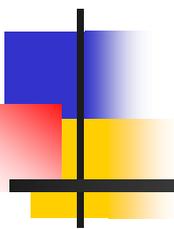
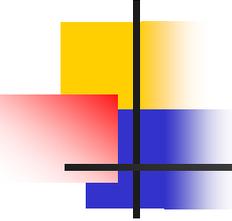


# -Costa Mesa Study Session– Pension Costs and Potential Options



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Rick Santos CFA, ASA, MAAA  
Senior Pension Actuary  
CalPERS



# Pension Costs - Options

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- Make no change
- Reduce personnel
- Terminate
- Freeze Future Service Accruals (Inactivate)
- 2<sup>nd</sup> Tier

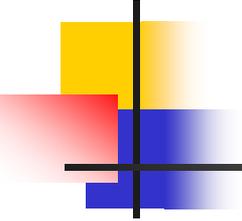
# Future Projected Total Rates (Employer + Employee)

<u>Fiscal Year</u>	<u>Miscellaneous</u>	<u>Safety Police</u>	<u>Safety Fire</u>
2011-2012*	27.052%	43.063%	46.404%
2012-2013	27.9	43.8	47.7
2013-2014	30.7	47.2	51.9
2014-2015	31.1	47.5	52.5
2015-2016	31.4	47.8	53.0
2016-2017	31.7	48.1	53.5

\* Actual rate

## Assumptions

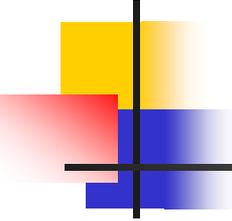
- 7.75% annual investment return for all rates beyond 2012-2013
- Plans stay active
- Payroll growth of 3.25% annually
- No demographic gains or losses



# Uncertainty In Future Projected Rates

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- Greater chance that rates will be higher rather than lower
  - No asset loss smoothing for a couple years
- Lower than expected liabilities could mitigate some of the increase in rates
- If staff is reduced/hiring flat:
  - Dollar costs will decrease
  - Rates will increase

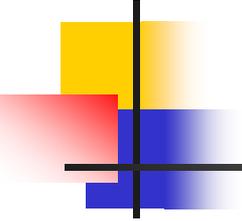


# Decrease in Payroll and Resulting Rate Changes

## Increase in Total Pension Rate 2013-2014

<u>Payroll Decrease</u>	<u>Misc</u>	<u>Police</u>	<u>Fire</u>
10%	1.1%	1.6%	1.5%
25%	3.3	4.9	3.2
50%	9.9	14.6	6.0

- Table assumes payroll decrease due to reduction in personnel
  - Accounts for decrease in pension liability

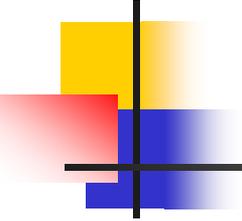


# Decrease in Payroll and Projected Dollar Costs

Miscellaneous Plan – Total \$ in Millions

	<u>0%</u>	<u>10%</u>	<u>25%</u>	<u>50%</u>
11-12 Total \$	\$8.1	\$7.3	\$6.1	\$4.1
12-13 Total \$	8.4	7.5	6.3	4.2
13-14 Total \$	9.2	8.6	7.6	6.1

- Assumes \$30 million payroll on June 30, 2011 before decrease
- Assumes decrease occurs on or before June 30, 2011
- Assumes no other payroll changes through June 30, 2014

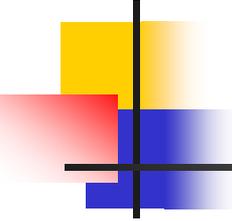


# Decrease in Payroll and Projected Dollar Costs

Police Plan – Total \$ in Millions

	<u>0%</u>	<u>10%</u>	<u>25%</u>	<u>50%</u>
11-12 Total \$	\$8.9	\$8.0	\$6.7	\$4.5
12-13 Total \$	9.1	8.2	6.8	4.5
13-14 Total \$	9.8	9.1	8.1	6.4

- Assumes \$21 million payroll on June 30, 2011 before decrease
- Assumes decrease occurs on or before June 30, 2011
- Assumes no other payroll changes through June 30, 2014

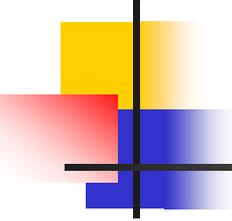


# Decrease in Payroll and Projected Dollar Costs

Fire Plan – Total \$ in Millions

	<u>0%</u>	<u>10%</u>	<u>25%</u>	<u>50%</u>
11-12 Total \$	\$5.7	\$5.1	\$4.3	\$2.9
12-13 Total \$	5.9	5.3	4.4	2.9
13-14 Total \$	6.4	5.9	5.1	3.6

- Assumes \$12.3 million payroll on June 30, 2011 before decrease
- Assumes decrease occurs on or before June 30, 2011
- Assumes no other payroll changes through June 30, 2014



# Unfunded Liability Measures

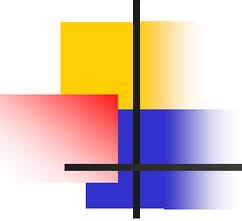
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- Actuarial (Smoothed)

- Used for rate setting purposes
- Smooths asset returns
- Assumes plan is a going concern
- Assumes all assumptions are met long-term

- Termination

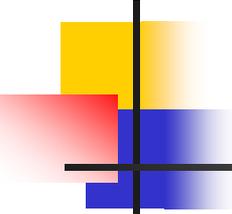
- The cost to “exit” CalPERS
  - Assumes no new service accruals
  - Includes a risk premium charge
  - Removes asset smoothing



# Actuarial Unfunded Liability (millions)

	<u>Miscellaneous</u>	<u>Fire</u>	<u>Police</u>
2008	\$22.7	\$20.7	\$38.8
2009	39.1	32.5	47.8
2010*	40.4	33.7	49.2
2011*	41.5	34.0	50.1

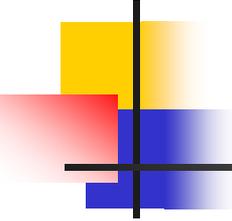
\* Projected using known returns for 2009-2011



# Termination Unfunded Liability (millions)

	<u>Miscellaneous</u>	<u>Fire</u>	<u>Police</u>
2008	\$25.3	-	\$41.1
2009	85.7	66.0	89.2
2010*	84.4	65.5	88.3
2011*	77.5	61.7	82.5
10 Yr. Pmt	11.0	8.8	11.7

\* Projected using known returns for 2009-2011

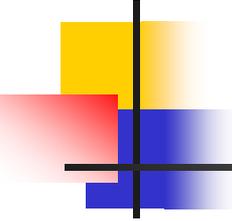


# Inactive vs. Active Fire Plan

2011-2012 Required Contributions (millions)

<u>11-12 Pay</u>	<u>Employer \$</u>	<u>Employee* \$</u>	<u>Total \$</u>
\$11,000,000	\$4.60	\$0.55	\$5.15
12,000,000	5.00	0.60	5.60
13,000,000	5.40	0.65	6.05
14,000,000	5.80	0.70	6.50
Inactive	3.70	0	3.70

\* Assumes employees contribute 5% of pay

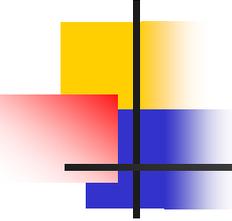


## 2<sup>nd</sup> Tiers - Miscellaneous Plan

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<u>Option</u>	<u>Ultimate Decrease in Rate</u>
2%@55, 1 Yr. FAC, PRSA	2.3%
2%@55, 3 Yr. FAC, No PRSA	3.5%
2%@60, 1 Yr. FAC, PRSA	3.6%
2%@60, 3 Yr. FAC, No PRSA	4.7%

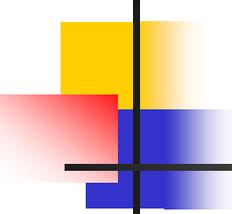
- These are decreases in TOTAL rate
- How fast rates decrease depends on a couple factors:
  - Time it takes for new employees to take over the plan
  - Overall payroll growth
- Assumes demographic composition of your plan remains constant



## 2<sup>nd</sup> Tiers – Police Plan

<u>Option</u>	<u>Ultimate Decrease in Rate</u>
3%@55, 1 Yr. FAC, PRSA	2.2%
3%@55, 3 Yr. FAC, No PRSA	4.6%
2%@50, 1 Yr. FAC, PRSA	4.0%
2%@50, 3 Yr. FAC, No PRSA	6.2%
2%@55, 1 Yr. FAC, PRSA	8.4%
2%@55, 3 Yr. FAC, No PRSA	10.2%

- These are decreases in TOTAL rate
- How fast rates decrease depends on a couple factors:
  - Time it takes for new employees to take over the plan
  - Overall payroll growth
- Assumes demographic composition of your plan remains constant

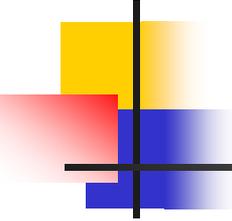


## 2<sup>nd</sup> Tiers – Fire Plan

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<u>Option</u>	<u>Ultimate Decrease in Rate</u>
3%@55, 1 Yr. FAC, PRSA	1.5%
3%@55, 3 Yr. FAC, No PRSA	4.2%
2%@50, 1 Yr. FAC, PRSA	3.7%
2%@50, 3 Yr. FAC, No PRSA	5.9%
2%@55, 1 Yr. FAC, PRSA	6.9%
2%@55, 3 Yr. FAC, No PRSA	8.8%

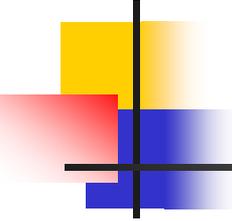
- These are decreases in TOTAL rate
- How fast rates decrease depends on a couple factors:
  - Time it takes for new employees to take over the plan
  - Overall payroll growth
- Assumes demographic composition of your plan remains constant



# Can The Fund Earn 7.75%?

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- Short/Intermediate term economic pressures may make it difficult
- Pension liabilities are long-term
  - Substantial portion of the liabilities won't be paid for at least 10 years
- 7.75% reflects long-term assumption



# Change in Discount Rate

## Miscellaneous Plan

<u>Discount Rate</u>	<u>Liabilities</u>	<u>Liab. % Change</u>	<u>Total Rate</u>
7.75%	190.5	-	27.1%
7.50%	196.7	3.3%	30.0
7.25%	203.3	6.7	33.1

## Safety Police Plan

<u>Discount Rate</u>	<u>Liabilities</u>	<u>Liab. % Change</u>	<u>Total Rate</u>
7.75%	180.4	-	43.1%
7.50%	186.4	3.3%	47.5
7.25%	192.8	6.9	52.2

- Liabilities are as of 6/30/2009
- Total rates are for 2011-2012