



# Agenda

- Actuarial Valuation Basics
- Assumption Update
- Corridor Funding (CRSP DB\* and MPP\*)
- Pre-82 Funding
- Contribution Potential Even If Plan 100% Funded

\* CRSP DB: Clergy Retirement Security Program Defined Benefit MPP: Ministerial Pension Plan

#### **Actuarial Valuation**

#### The actuarial valuation presents the plan's:

- Assets
- Liabilities
  - Today's value of future expected benefit payments
- Funded Ratio
  - Assets / Liabilities
- Contribution

### Actuarial Valuation—Items Impacting Results



- Census data
- Asset performance and methodology
- Type of valuation
- Key liability assumptions
  - Discount rate
  - Mortality table

#### Actuarial Valuation—Census Data

- Collected for all participants entitled to benefits from plan
  - Receiving benefits
  - Accrued future benefits
- Provides information for estimating future benefits
  - E.g., birth date, gender, service,
     benefit amount, form of annuity
- Pulled from Benefits Access for plan sponsors in March; data as of January 1



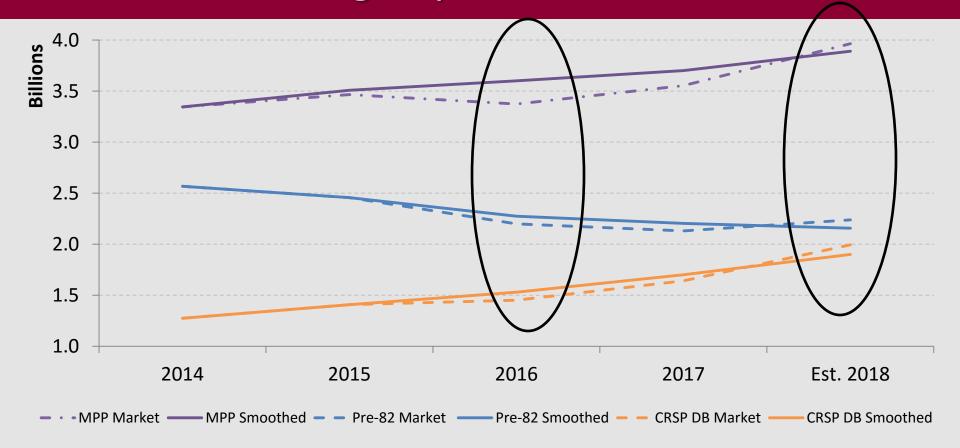
### Actuarial Valuation—Asset Returns

|                      | 2016 Returns |          | 2017 Returns |          |
|----------------------|--------------|----------|--------------|----------|
|                      | Actual       | Expected | Actual       | Expected |
| CRSP DB              | 8.410%       | 7.000%   | 17.980%      | 7.000%   |
| <b>MPP Annuities</b> | 6.870%       | 6.250%   | 12.110%      | 6.250%   |
| Pre-82               | 8.060%       | 6.625%   | 17.200%      | 6.625%   |

# Actuarial Valuation—Asset Smoothing

- Smoothing of assets for contribution purposes
  - MPP: Began with January 1, 2014 valuation
  - CRSP DB and Pre-82: Began with January 1, 2016 valuation
- Actuarial gains and losses on assets—now recognized incrementally in smoothed assets over five years
  - Actuarial gain or loss on assets is the return above or below the expected return
  - 20% of actuarial gain or loss will be recognized in each of the five years following the gain or loss
- Smoothed asset value—not allowed to go below 80% or above 120% of the market value of assets

# **Asset Smoothing Impact**



# Actuarial Valuation—Types of Valuations

#### Funding valuation

- Based on long-term assumptions
- Discount rate based on expected return on assets

#### Market valuation

- Based on current market conditions
- Discount rate based on current corporate bond yields

### Actuarial Valuation—Funding Discount Rates

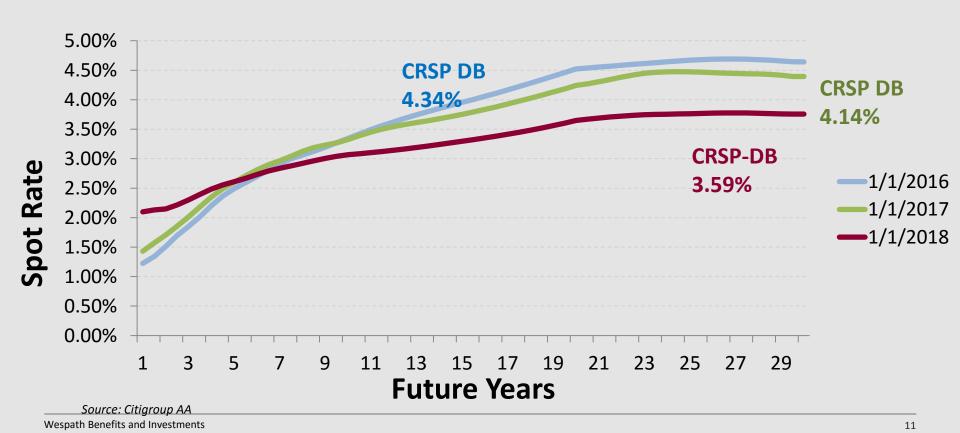
#### Long-term expected return on assets updated

- No change for CRSP DB or Pre-82
- Changes made for MPP

#### New MPP discount rates

- Decreased from 6.25% to 6.00%
- Expected increase in liability of about 2%

#### Actuarial Valuation—Market Discount Rates



# Assumption Update—Mortality

- The Society of Actuaries (SOA) plans yearly mortality improvement scale updates for the base mortality table issued in 2014 (RP2014 tables)
  - MP 2014 scale published in 2014
  - MP 2015 scale published in 2015
  - MP 2016 scale published in 2016
  - MP 2017 scale published in 2017
- Each new scale has slightly lower rates of mortality improvement than the prior scale, reflecting that longevity is not improving as quickly as previously expected

# Assumption Update—Mortality

- Mortality assumption will be updated at the time of a quadrennial demographic assumption study
- Demographic assumption study was completed in 2017; changes were effective January 1, 2018
  - MP 2016 improvement scale instead of MP 2014

# Impact of Update to MP 2016

#### Overall

- Small decrease in 1/1/2018 liabilities for all plans
- Improvement in funded ratio may be offset by demographic changes

#### MPP

- Minimal total change
- Mortality change canceled out by discount rate change



# Valuation Results for Clergy DB Plans

Pre-82 Plan (by conference)

MPP Annuities (1982-2006)

CRSP DB (2007+)

MPP: Ministerial Pension Plan

CRSP: Clergy Retirement Security Program



# **Corridor Funding**

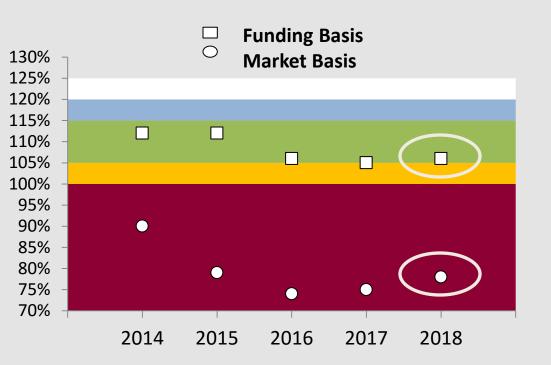


# **Corridor Funding Guidelines**

| Market Basis Funded Ratio | Funding Basis Contribution<br>Method   | MPP Annuities Equities |
|---------------------------|--|------------------------|
|                           |  |                        |
| 120% +                    | None   | 10%                    |
| 115-119.9%                | Reduced  | 20%                    |
| 105 – 114.9%              | Normal Cost <sup>1</sup>   | 30% – 40%              |
| 100 – 104.9%              | Normal Cost <sup>1</sup>   | 40%                    |
| Under 100%                | Normal Cost <sup>1</sup> Plus Payment<br>on Unfunded Liability on a<br>Funding Basis | 40%                    |

Normal cost reflects the cost of current benefit accruals and applies only to CRSP DB.

# **Corridor Funding Estimated Results**



| Market Basis<br>Funded Ratio | Funding Basis<br>Contribution Method  | MPP Annuities<br>Equities |
|------------------------------|---|---------------------------|
| 120% +                       | None  | 10%                       |
| 115-119.9%                   | Reduced   | 20%                       |
| 105 - 114.9%                 | Normal Cost <sup>1</sup>  | 30%-40%                   |
| 100 – 104.9%                 | Normal Cost <sup>1</sup>  | 40%                       |
| Under 100%                   | Normal Cost <sup>1</sup> Plus<br>Payment on<br>Unfunded Liability<br>on a Funding Basis | 40%                       |

<sup>1</sup> Normal cost reflects the cost of current benefit accruals and applies only to CRSP DB.

### **CRSP DB and MPP Annuities**

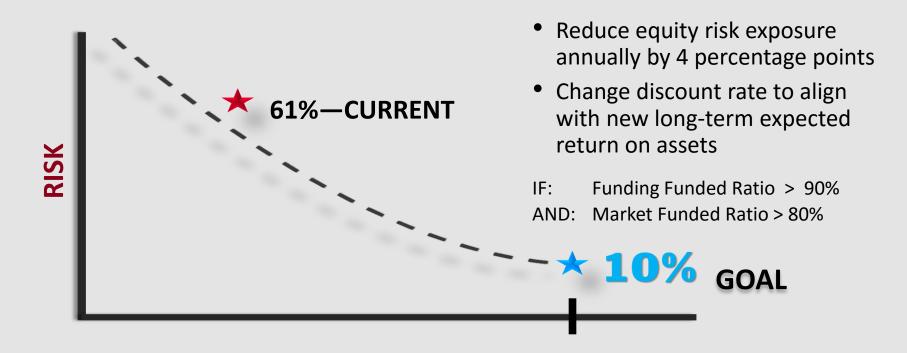
#### **Estimated Funded Ratio on a Funding Basis**

|               | January 1, 2017 | January 1, 2018, est. |
|---------------|-----------------|-----------------------|
| CRSP DB       | 107%            | 110%                  |
| MPP Annuities | 105%            | 104%                  |
| Combined      | 105%            | 106%                  |

# Pre-82 Funding



#### Pre-82 Plan Glide Path



#### Pre-82 Est. Funded Ratios for Glide Path

#### January 1, 2018 (excluding surplus)

| In \$ Billions | Funding Basis<br>6.625% Discount<br>Rate | Funding Basis<br>6.50% Discount<br>Rate | Market Basis |
|----------------|--|---|--------------|
| Assets         | \$1.87                                   | \$1.88                                  | \$2.16       |
| Liability      | (1.93)                                   | (1.94)                                  | (2.50)       |
| Funded Status  | \$(0.06)                                 | \$(0.06)                                | \$(0.34)     |
| Funded Ratio*  | 97%                                      | 97%                                     | 87%          |

Funding Funded Ratio at least 90%



Market Funded Ratio at least 80%



Go down the glide path?



<sup>\*</sup> Values may be off due to rounding.

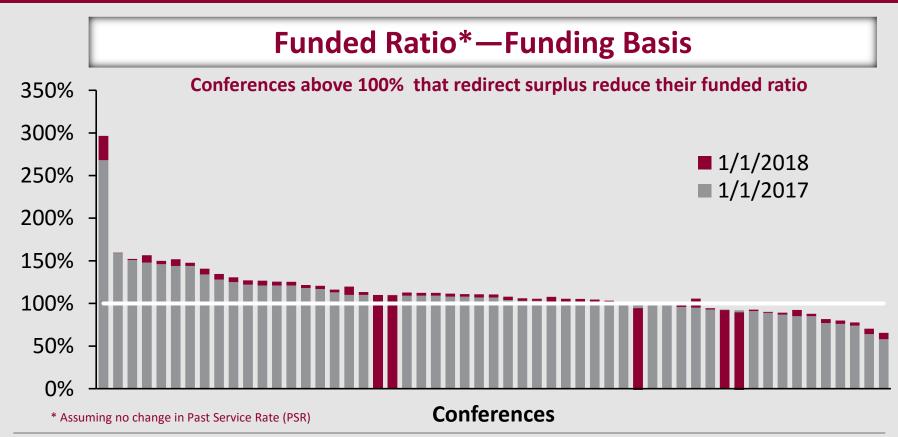
#### Pre-82 Glide Path Actions in 2018

#### Equity allocation—drop to 57%

Discount rate for January 1, 2018 liabilities—

drop to 6.50%

# Estimated Funding Change in Pre-82 Plan



#### Valuation Results Pre-82 Funded Ratio History—Funding Basis

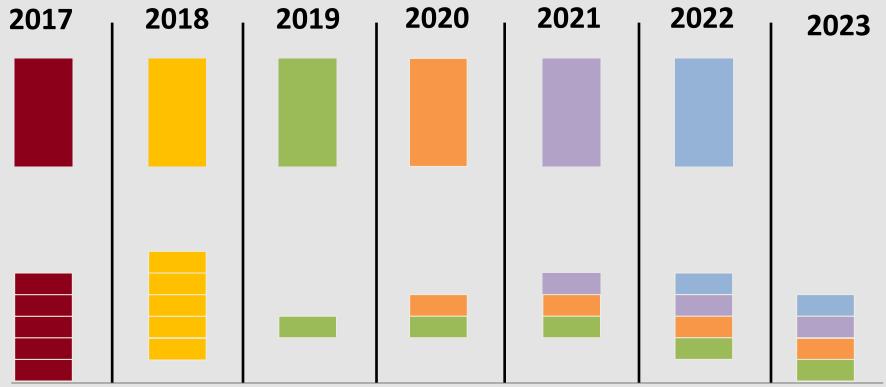




#### A Fully Funded Plan Can Become Underfunded

- Each year, gains and losses occur and are spread over 5 years
- Bases (layers) are created
- Reduces the potential for contribution spikes
- If funded ratio is over 100%, the bases (layers) are zeroed out

# Amortization of Unfunded Liability



# After Reaching 100% Funded





# Summary

#### Corridor Funding

- CRSP DB 2020 contribution based only on Normal Cost
- MPP discount rate change offset by mortality change

#### Pre-82

- Glide path: Moved to 57% equities with 6.50% discount rate
- Denomination above 100% funded
- Some individual conferences still below 100%

#### Future Contributions

Even a 100% funded plan can have future contributions

