



Conference Forum—March 2021



**Wespath**

BENEFITS | INVESTMENTS

# Valuation Results and Assumption Updates

# Agenda

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- Refresher: Valuation Basics
- Funding Discount Rate Update
- COVID-19 Update
- Mortality Assumption Updates
- Valuation Results
- Withdrawal Liability





# Valuation Basics

# Valuation Basics

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## Actuarial valuation presents the plan's:

- **Assets**
- **Liabilities**
  - Today's value of future expected benefit payments
- **Funded ratio**
  - $\text{Assets} / \text{Liabilities}$
- **Contribution**



# Valuation Basics—Asset Returns

		2019 Returns		2020 Returns	
	% In Equity	Actual	Expected	Actual	Expected
<b>CRSP DB</b>	65%	<b>21.08%</b>	<b>7.000%</b>	<b>18.21%</b>	<b>7.000%</b>
<b>MPP Annuities</b>	40%	<b>14.89%</b>	<b>6.000%</b>	<b>12.47%</b>	<b>6.250%</b>
<b>Pre-82</b>	49%*	<b>19.45%</b>	<b>6.375%</b>	<b>15.45%</b>	<b>5.500%</b>

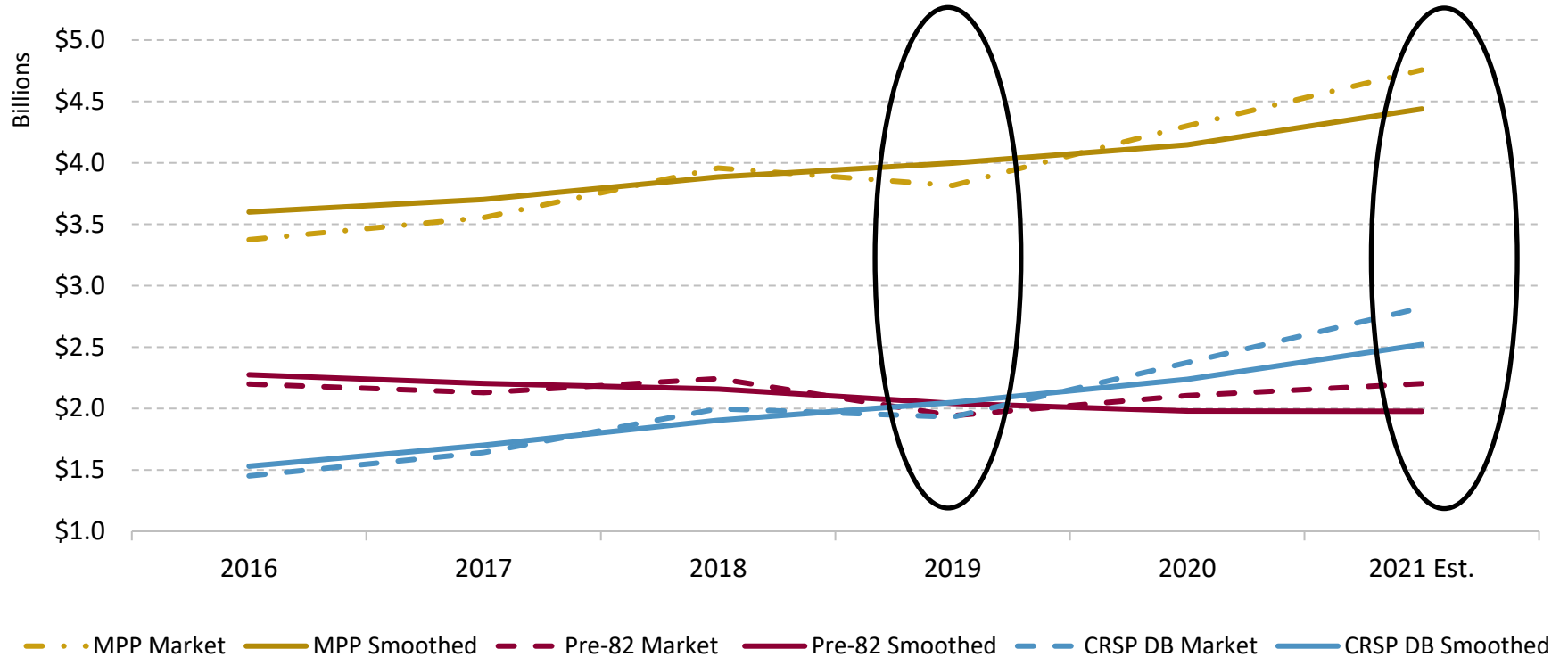
\* The Pre-82 % in Equity was 53% in 2019

# Valuation Basics—Asset Smoothing

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- Actuarial gains and losses on assets 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

# Valuation Basics—Asset Smoothing



# Valuation Basics—Types of Valuations

- **Funding valuation**

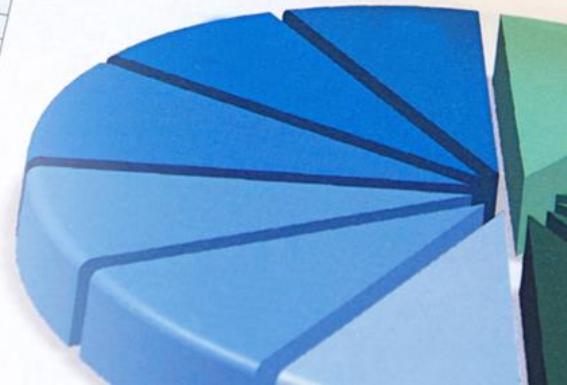
- Based on long-term assumptions
- Discount rate based on expected return on assets

- **Market valuation**

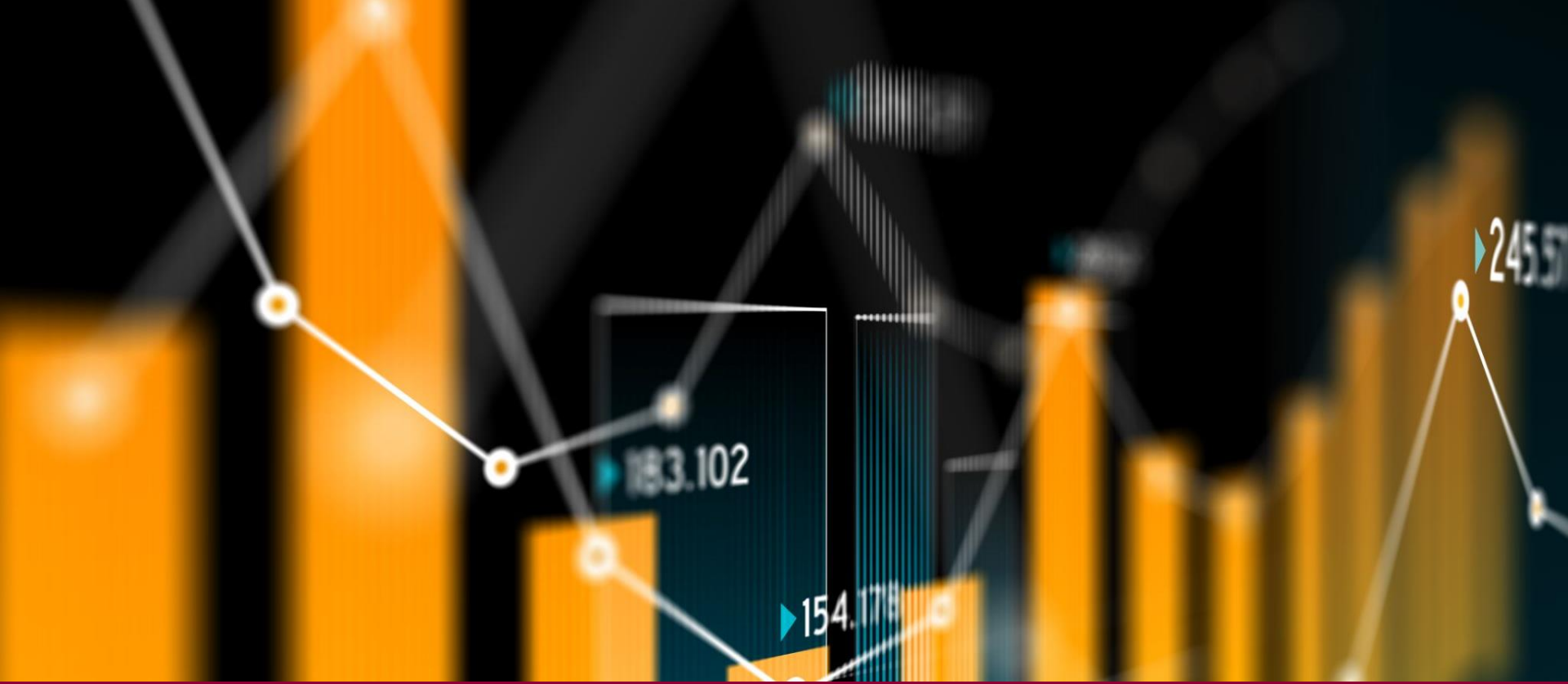
- Based on current market conditions
- Discount rate based on current corporate bond yields



07-11	07-12	07-13
\$150	\$150	\$148
\$100	\$100	\$0
\$150	\$150	\$160
\$3,000	\$3,000	\$7,300
\$3,000	\$3,000	\$58
\$3,000	\$10,000	\$13,400
\$0	\$0	\$0
\$0	\$0	\$3,750
\$200	\$0	\$0
\$2,000	\$0	\$0
\$0	\$0	\$0
\$18,600	\$24,816	
\$12,947	\$16,044	
\$1,655	\$19,268	
\$1,264	\$22,491	
\$1,072	\$25,715	







# Funding Discount Rate Update

# Funding Discount Rate

- Based on long-term expected rate of return of assets backing the liabilities
- Expected Rate of Return is based on the Capital Asset Pricing Model (CAPM)
  - Produced annually by the Wespath Investment Department
- Because the CAPM is impacted by the current market
  - Near-term returns may change significantly year over year



# Mitigate the Volatility Due to CAPM

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- Annually develop a range of acceptable discount rates based on the new CAPM
- Width of range varies based on equity exposure for the plan



- Don't change the existing discount rate if within the range

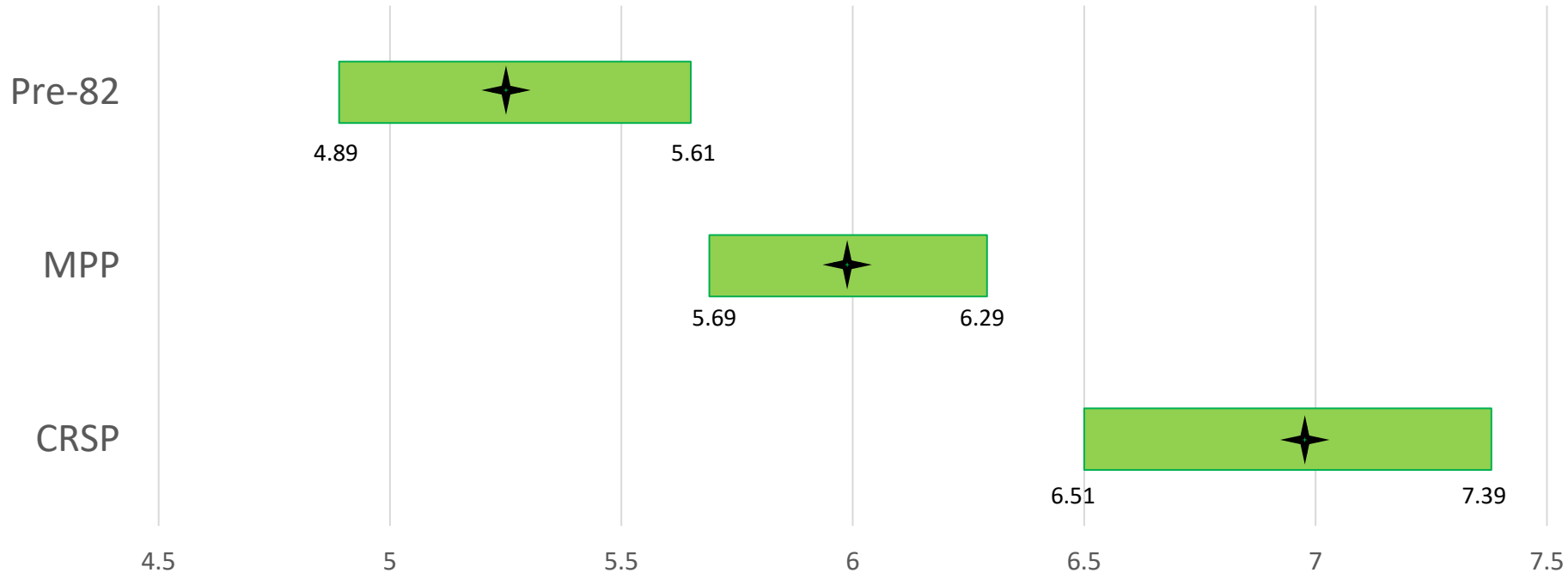


- Update discount rate if outside range



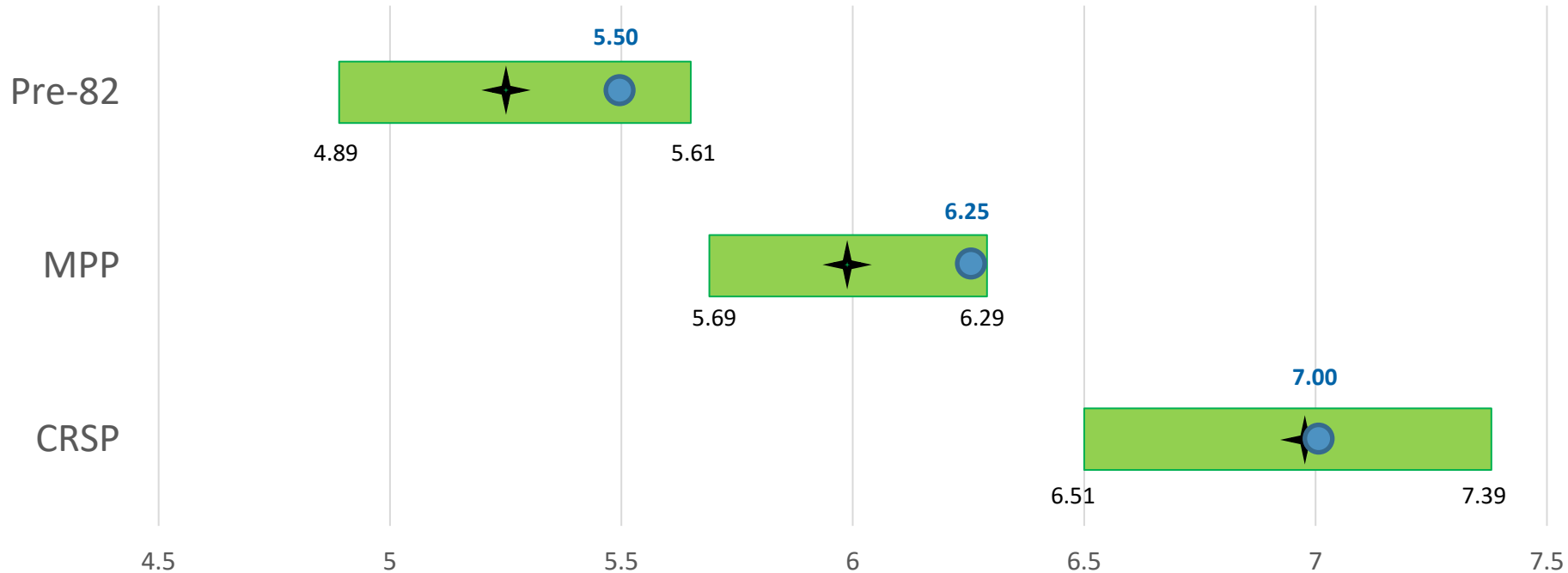
# Mitigate the Volatility Due to CAPM

Discount Rate Ranges



# Mitigate the Volatility Due to CAPM

Existing Discount Rate

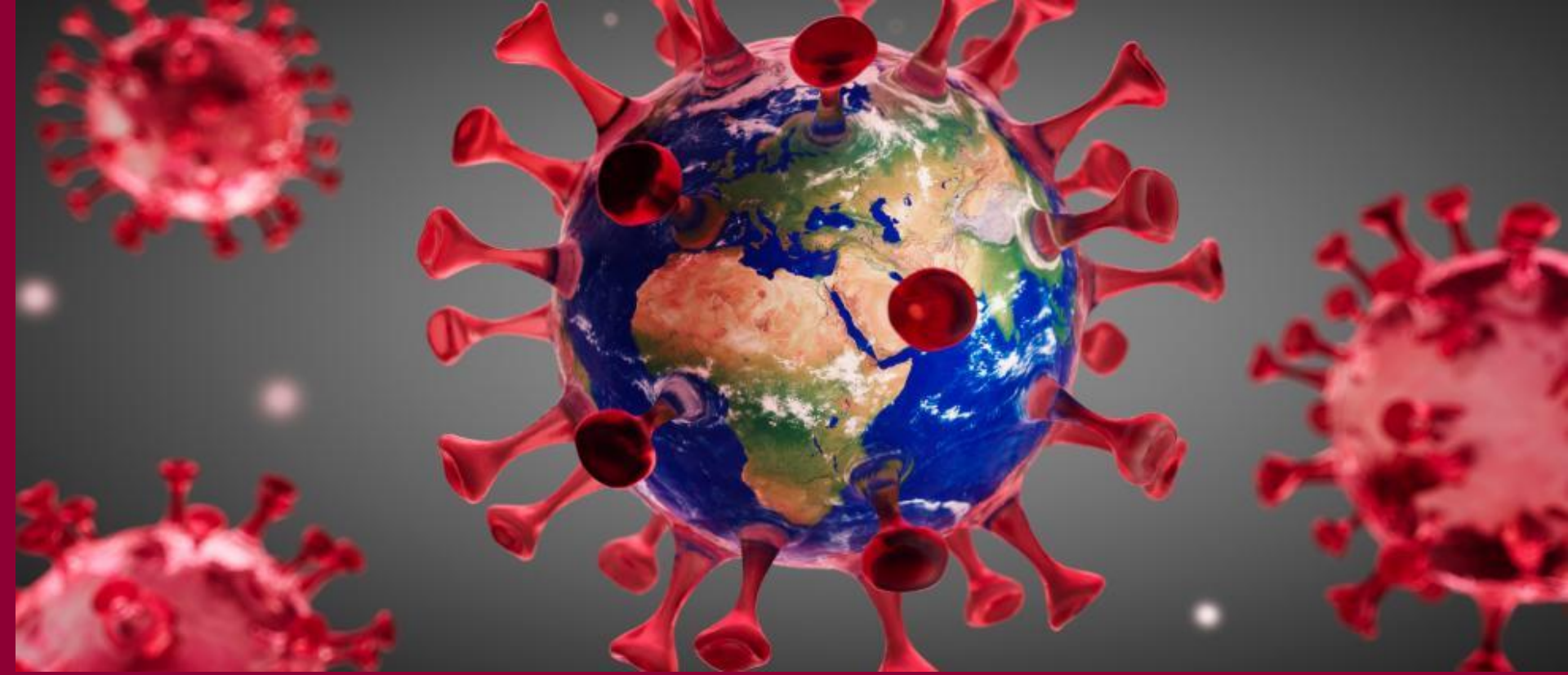


# 2021 Funding Discount Rates

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- All existing discount rates were inside the range
- No changes to funding discount rates for 2021
- Rates will be evaluated annually against the range
- Discount rates will be reset to the midpoint of the range once a quadrennium

Plan	2021 Discount Rate
CRSP-DB	7.00%
MPP	6.25%
Pre-82	5.50%



# COVID-19 Update

# COVID-19 Impact on 2020 U.S. Mortality

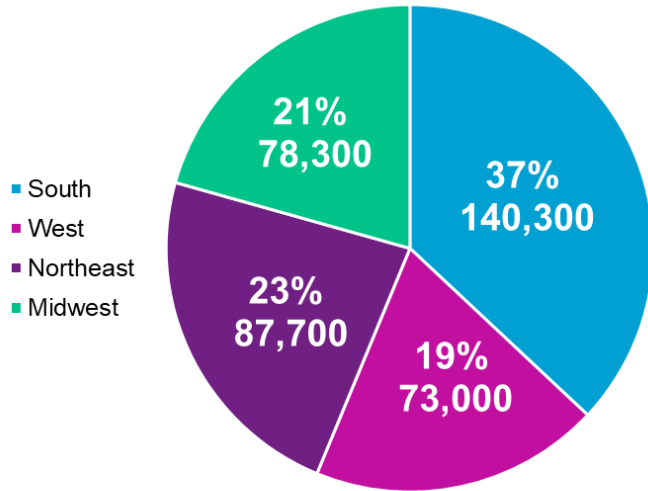
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- WTW shared some research with us
- Identifying Covid-19 deaths is challenging
  - Reporting lag
  - Testing on the deceased
  - Coding of death certificates
- However, through mid-November 2020 approximately 379,000 more deaths were reported than expected
  - Covid-19 is a major cause for the increase



# Excess Deaths in 2020: By Region

Excess Deaths By Region

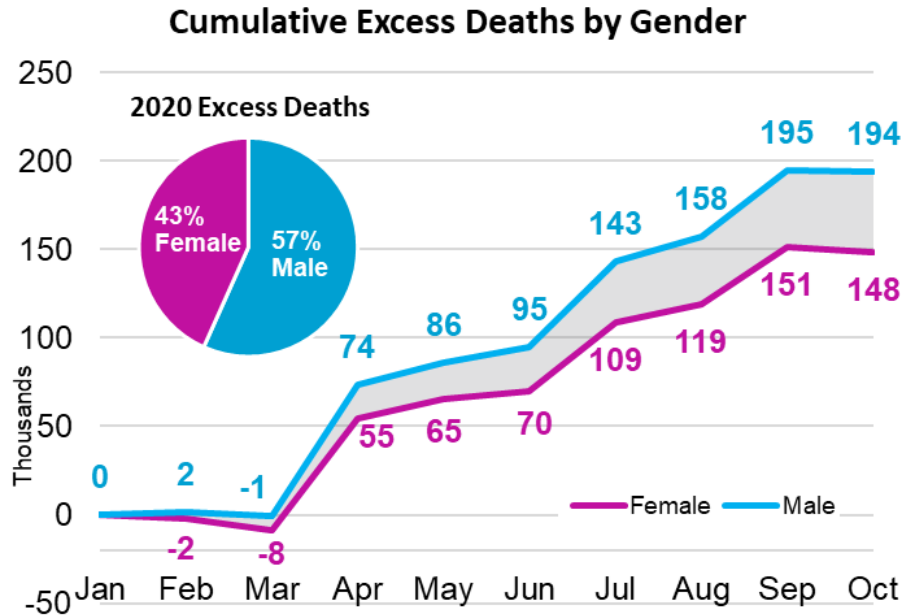


Excess deaths is measured by average of 2015 to 2019 actual deaths each week compared to 2020 actual reported deaths, 2020 data published 12/9/2020

- Excess death experience is not uniform across the U.S.
  - Address may play an important factor in COVID-19's impact on pension plan participants

Data is sourced from the CDC via WTW  
Data as of 11/21/2020

# Excess Deaths in 2020: By Gender



- Male deaths account for 57% of excess deaths compared to 52% of total deaths in 2020
- Some experts suggest that women tend to have stronger immune systems than men
  - Men are more prone to heart and liver disease and high blood pressure

*Data is sourced from the CDC via WTW  
Data as of 12/2/2020 but shown through 10/31/2020 due to reporting lag*

*Excess deaths is measured by 2018 actual deaths each week compared to 2020 actual reported deaths, 2020 data published 12/2/2020. 2019 CDC mortality data by gender is not yet available*

# Covid-19 Impact on Future Deaths

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- Some articles claim that Covid has already reduced life expectancy by 1 year
- It is too early to tell
  - All the data available reflects the treatment and vaccine options at the time
  - As vaccine availability improves, deaths should decrease in the short term
  - Waiting until we have more scientific data and expert guidance on the lingering effects
  - Based on information provided by Willis Towers Watson, most plan sponsors are choosing to wait and see
- UMC Mortality assumption
  - 2020 deaths are not included in the data studied
  - Any excess deaths during 2020 will naturally be reflected in the 2021 valuation when we pull census data as of 1/1/2021
  - Once more expert guidance and data is available, the Covid-19 impact on the mortality assumption would be considered



# Mortality Assumption Updates

# 2021 Assumption Study

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- Completed quadrennially
- UMC experience is compared to the valuation assumption
  - Assumptions are updated if necessary
- Only the Mortality assumption has been studied so far
  - Historically mortality has had the biggest impact on liabilities
- Other assumptions will be analyzed and updated for the 1/1/2021 valuation

# What Does it Take to Do a Mortality Study?

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Skit Placeholder

# 2021 Assumption Study

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- We studied death data from 2015-2019
- UMC experience was slightly worse than the current assumption
  - Overall, more deaths occurred than expected
- The mortality table and the projection of future improvement to mortality were updated



# Current and Recommended Assumption

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*Standard table created by the Society of Actuaries using data from 2004-2008*

*Standard table created by the Society of Actuaries using data from 2010-2014*



# Life Expectancy for a 65-Year-Old Retiree

**As of 2021**

<b>Gender</b>	<b><u>Current</u> RP-2014 White Collar Annuitant with MP-2016</b>	<b><u>Recommended</u> Adjusted Pre-2012 Top Quartile Retiree with MP-2020</b>
Male	22.7	21.7
Female	24.6	24.0

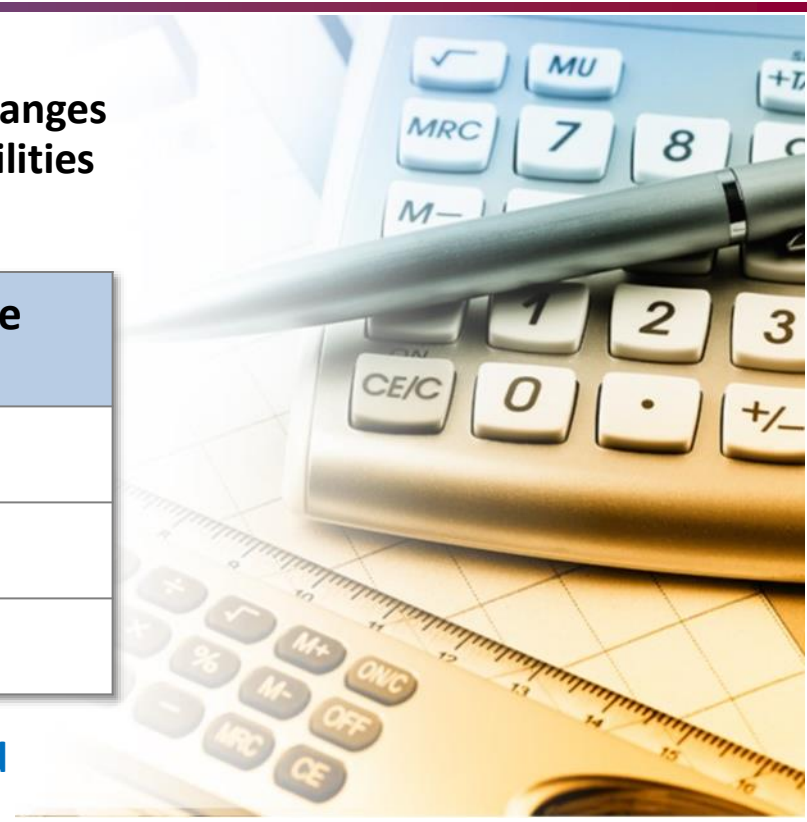
*Mortality improvement scales released since 2014 have consistently projected less improvement than the scale released the prior year. Therefore, life expectancies have come down over the years.*

# Estimated Impact on Liabilities

Adopting the recommended mortality assumption changes would result in an estimated decrease in funding liabilities for Pre-82, MPP Annuities, and CRSP-DB as follows:

Plan	Estimated Change in Liabilities
Pre-82	-3.00%
MPP Annuities	-3.50%
CRSP-DB	-2.50%

**Impact on market liabilities was not estimated**



# Estimated Impact on Liabilities

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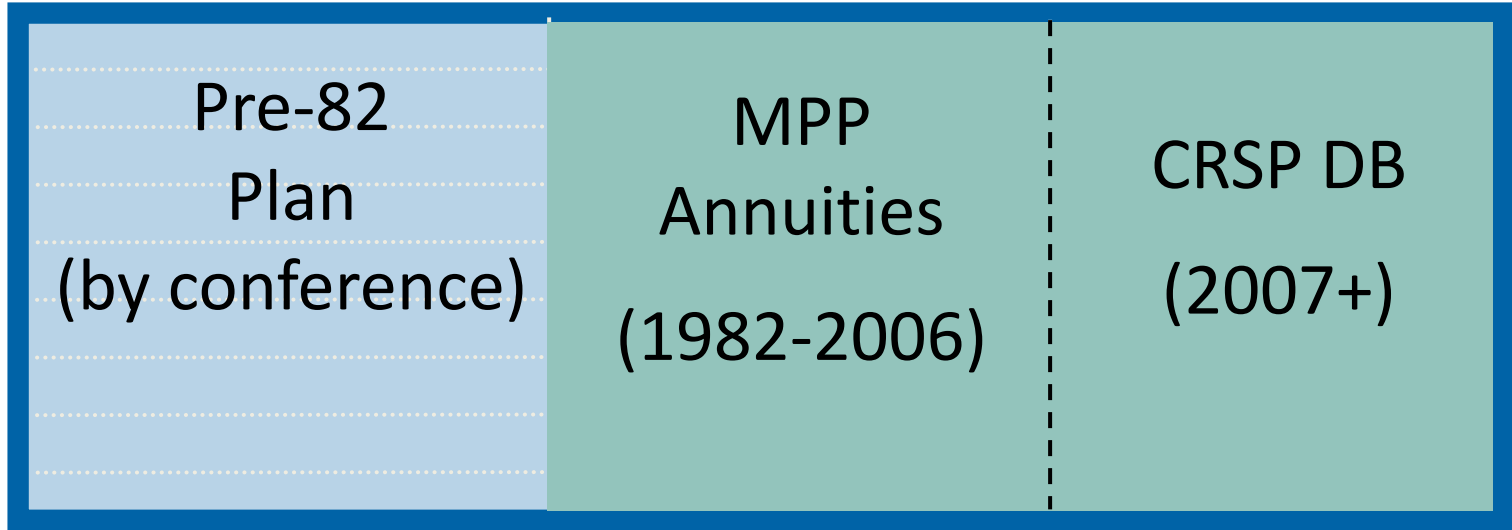


- These are only preliminary estimates
- Other assumptions are yet to be studied
- The outcome of those studies can change the impact on 1/1/2021 liabilities



# Valuation Results

# Valuation Results for Clergy DB Plans



MPP: Ministerial Pension Plan  
CRSP: Clergy Retirement Security Program

**Corridor Plan**

# Corridor Funding

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# Corridor Plan Funded Ratio (Update 2021)

## Estimated Funded Ratio—Funding Basis

January 1, 2020

January 1, 2021

After Mortality Update

<b>CRSP DB</b>	<b>108%</b>	<b>116%</b>
<b>MPP Annuities</b>	<b>111%</b>	<b>119%</b>
<b>Combined</b>	<b>110%</b>	<b>118%</b>

Contributions based purely on Normal Cost: \$90 million for 2022 and 2023

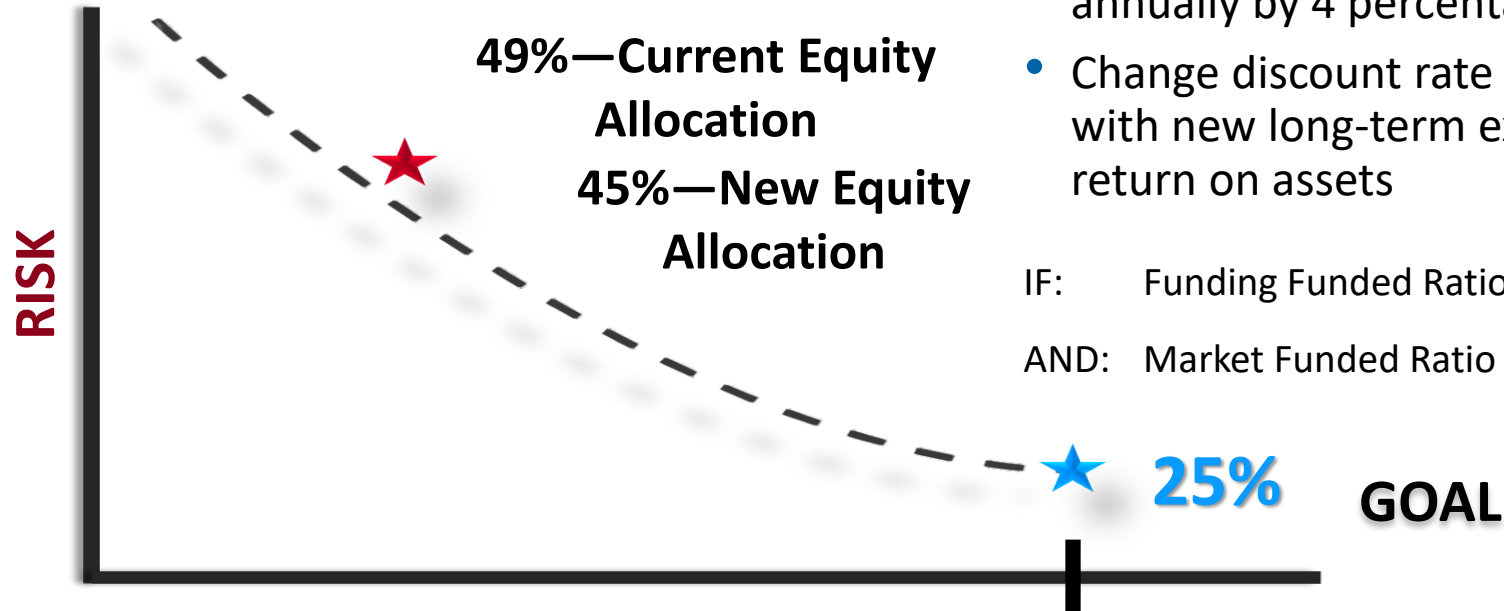
# Pre-82 Funding

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# Pre-82 Plan Glide Path



- Reduce equity risk exposure annually by 4 percentage points
- Change discount rate to align with new long-term expected return on assets

IF: Funding Ratio > 90% 

AND: Market Ratio > 80% 

# Pre-82 Glide Path Actions in 2021

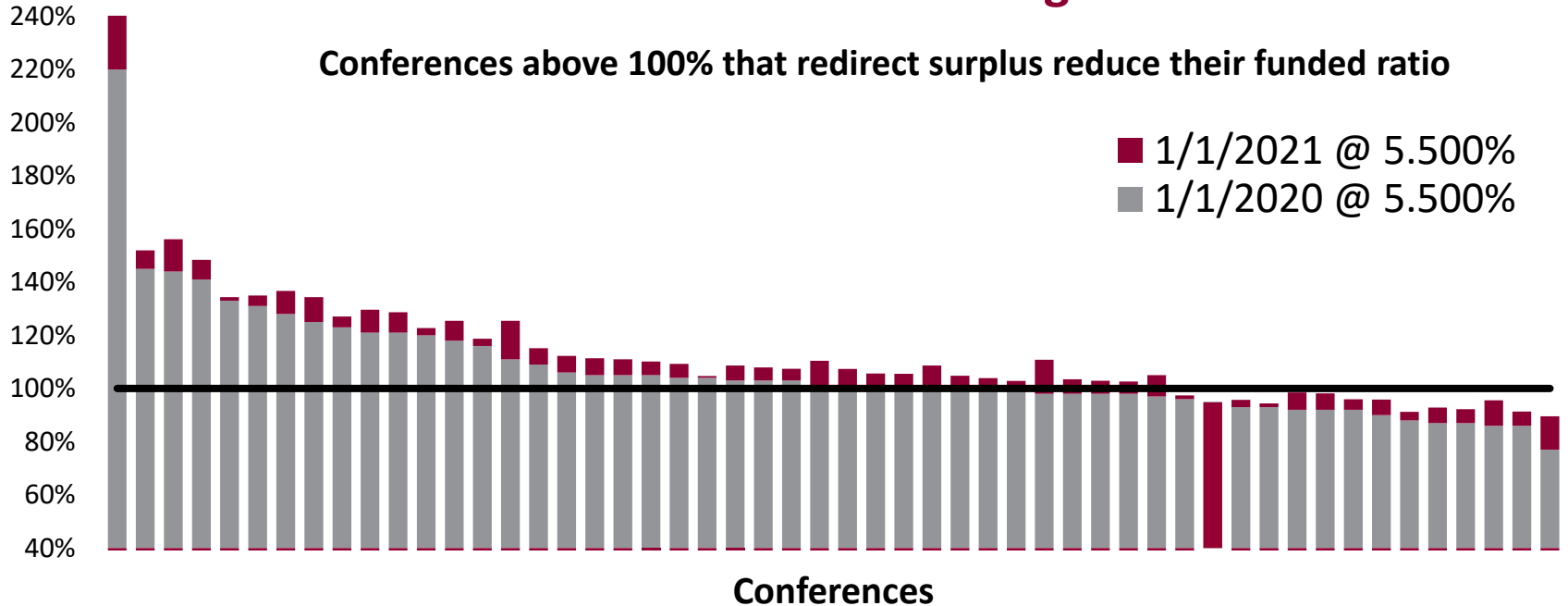
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Equity allocation—**drop from 49% to 45%**

Discount rate for January 1, 2021 liabilities—  
**5.500% no change from 2020**

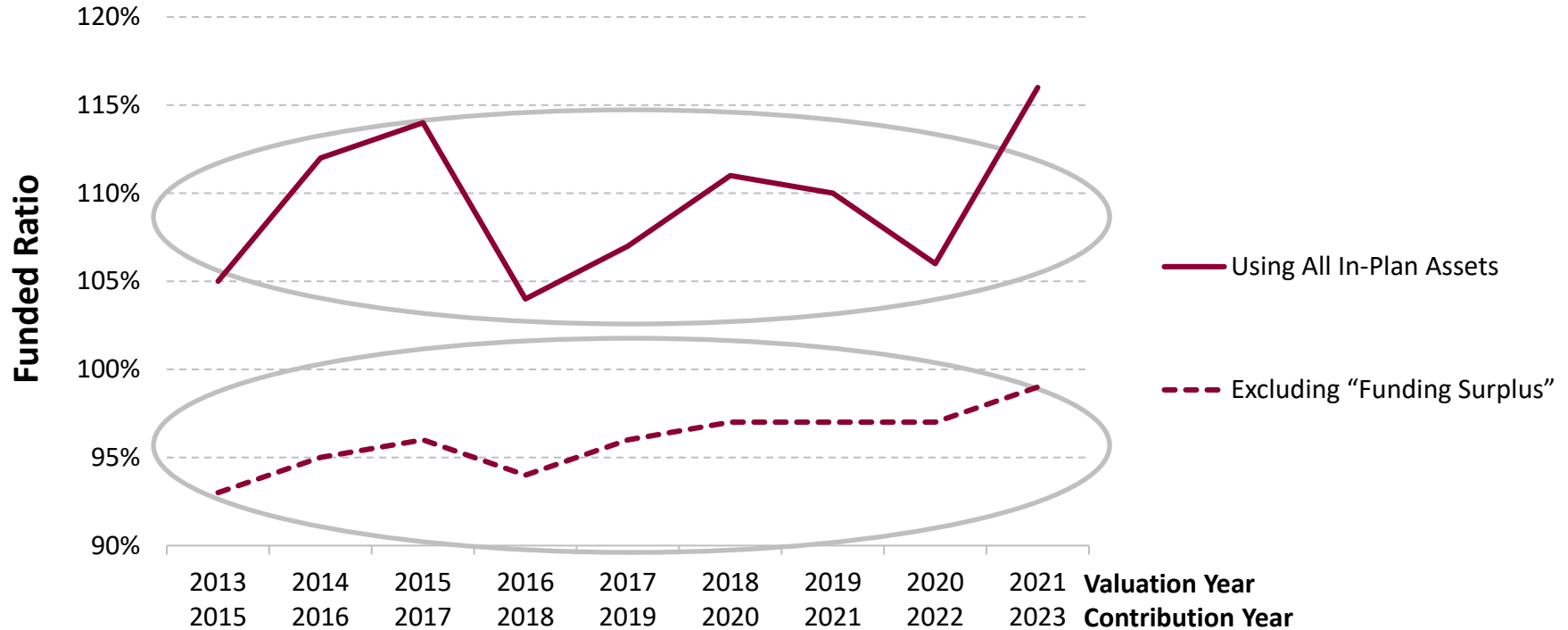
# Estimated Funding Change in Pre-82 Plan

## Funded Ratio\* —Funding Basis



\* Assuming no change in Past Service Rate (PSR)

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





# Withdrawal Liability

# Withdrawal Liability

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## What is it?

- Liability of a conference in accordance with *Book of Discipline* ¶1504 as amended by General Conference 2019 petition 90016

## How is it used?

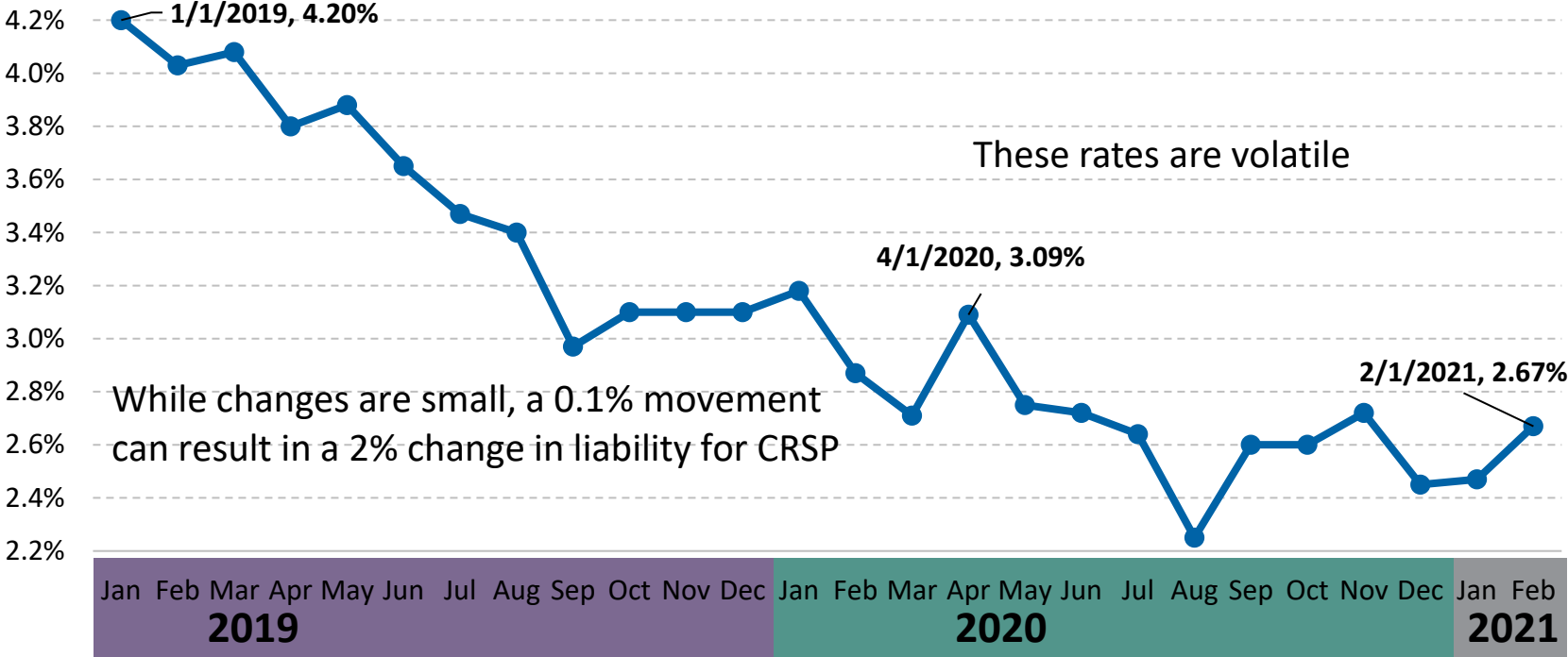
- In the determination of the unfunded liability of a conference who then assigns a portion of that underfunding to a separating church

## What assumptions does it use?

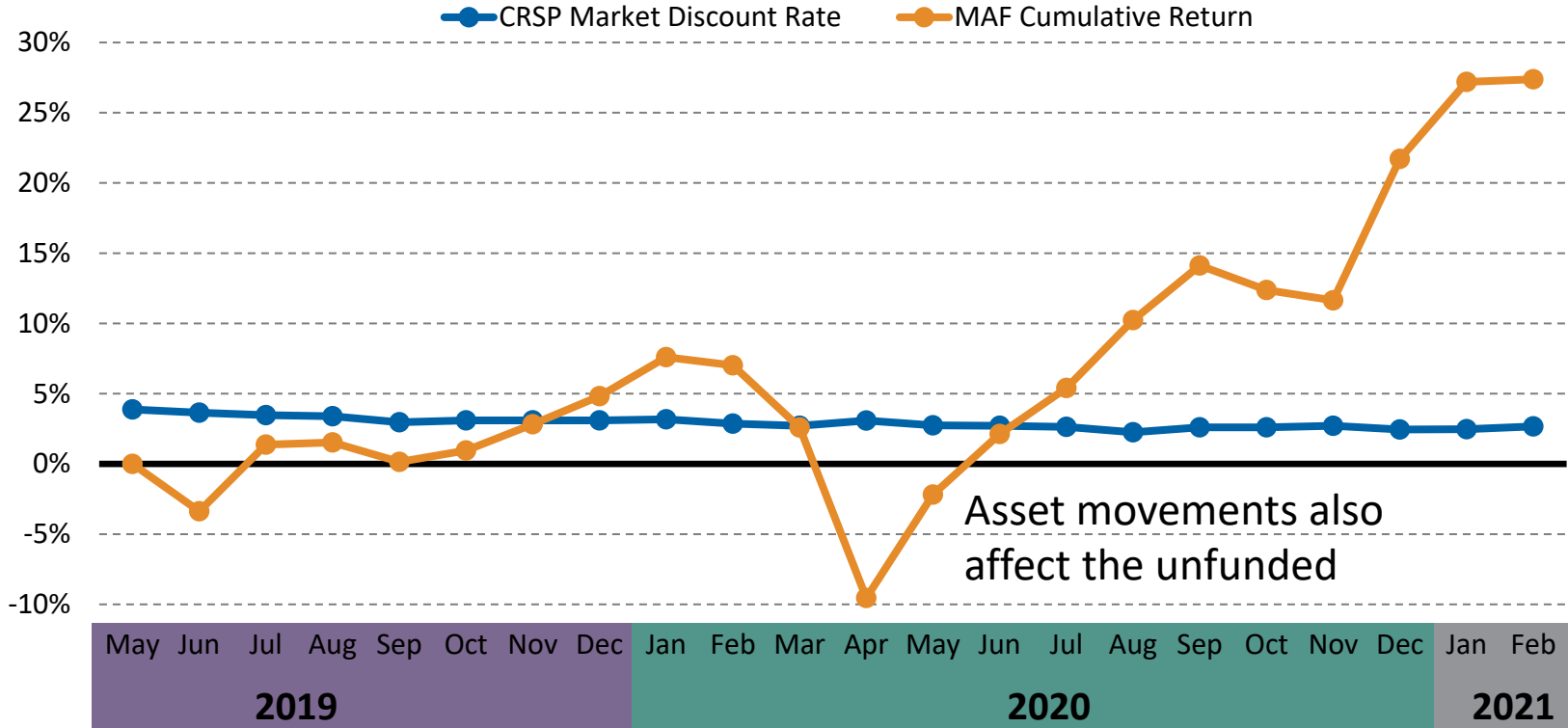
- Market discount rates
- PSR and DAC increases
- 10% risk transfer premium

# Withdrawal Liability—Market Discount Rate

## CRSP Jan 2019 – Feb 2021 Market Discount Rates

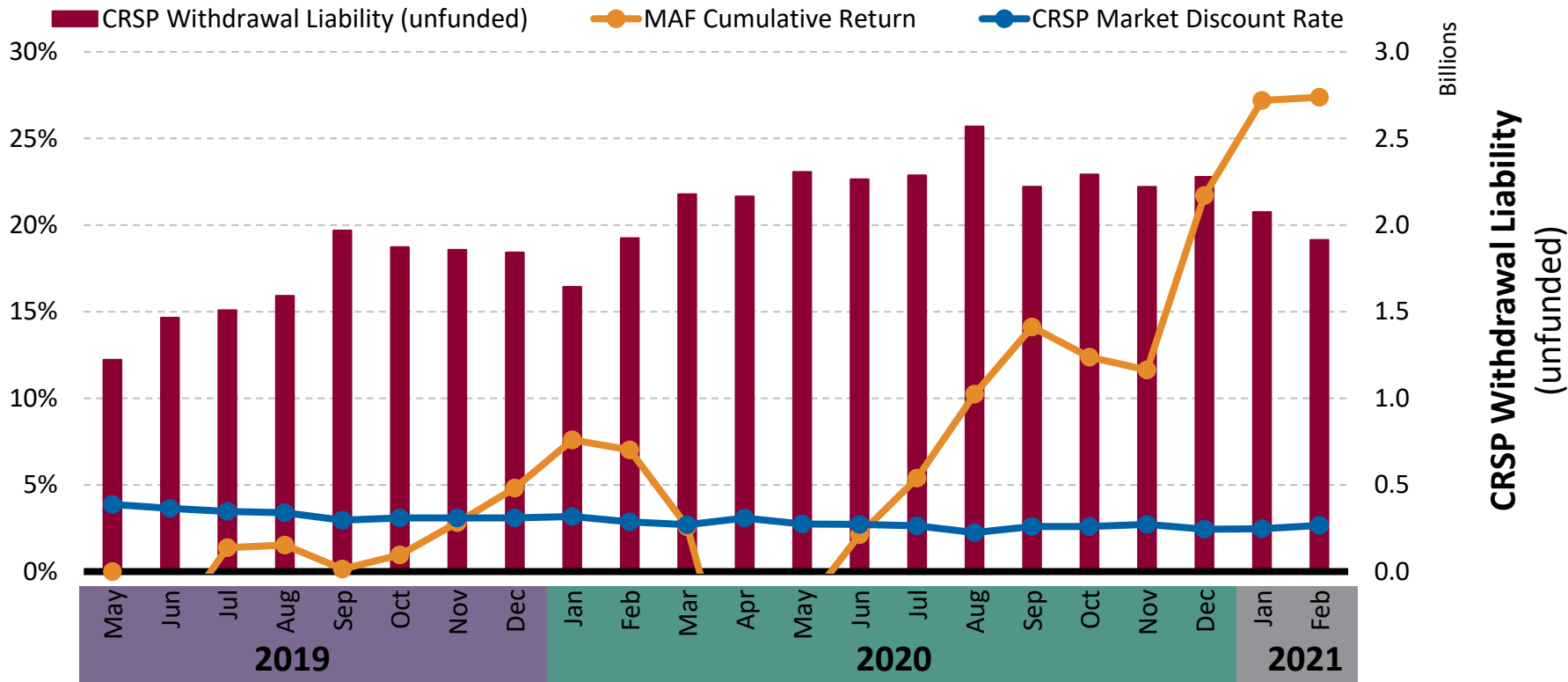


# Withdrawal Liability—Asset Performance





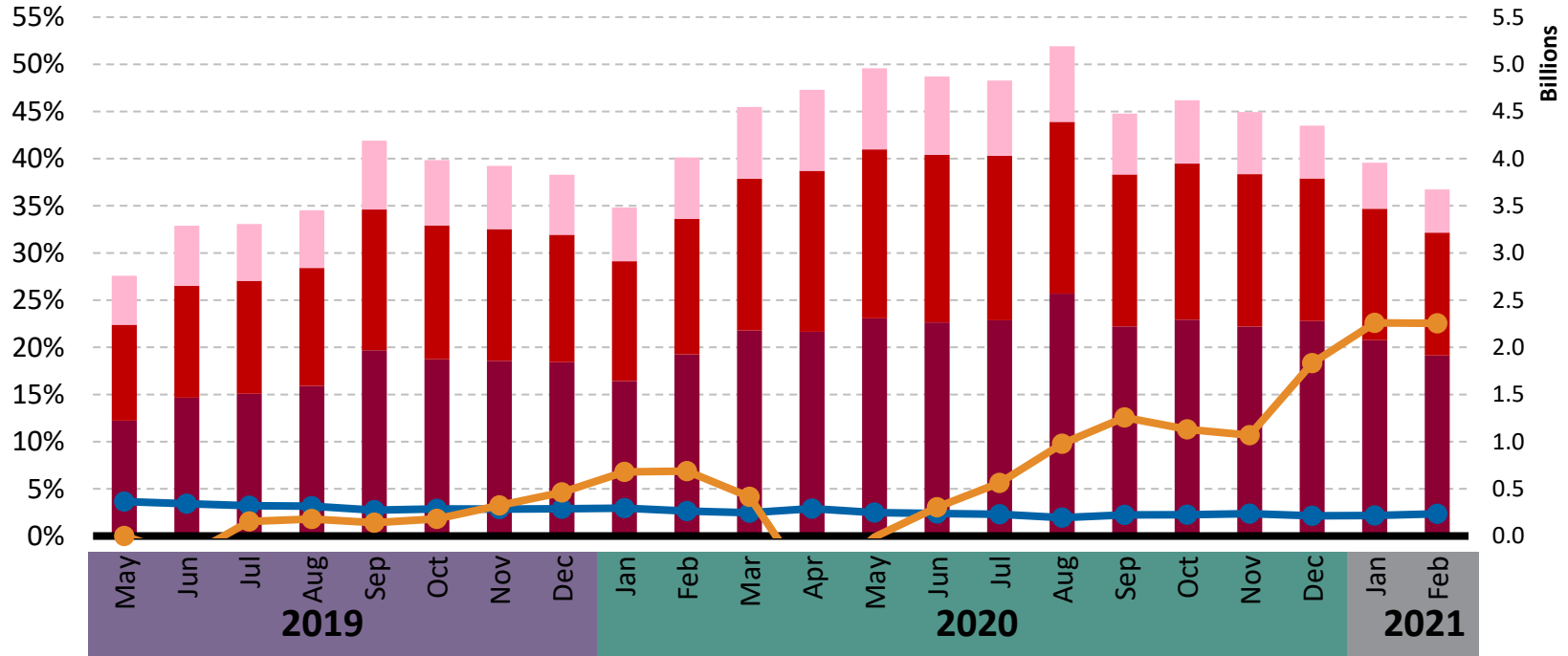
# Withdrawal Liability—Unfunded Volatility (CRSP)



# Withdrawal Liability—Unfunded Volatility

■ CRSP Withdrawal Liability (unfunded)    
 ■ MPP Withdrawal Liability (unfunded)    
 ■ Pre-82 Withdrawal Liability (unfunded)

● Weighted Market Discount Rate    
 ● Cumulative Return (weighted by MVA)





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