



Agenda

- Amortization
- Asset Smoothing
- Glide Path (only Pre-82)
- Corridor Funding
- January 1, 2016 Valuation Results
- CPP Holiday



Amortization of Unfunded Gain/Loss

Unfunded liability: the cumulative result of past gains/losses

Gain or loss occurs because:

- Actual economic experience differs from expected
- Actual demographic changes differ from expected

Asset Gains and Losses



Amortization of Unfunded

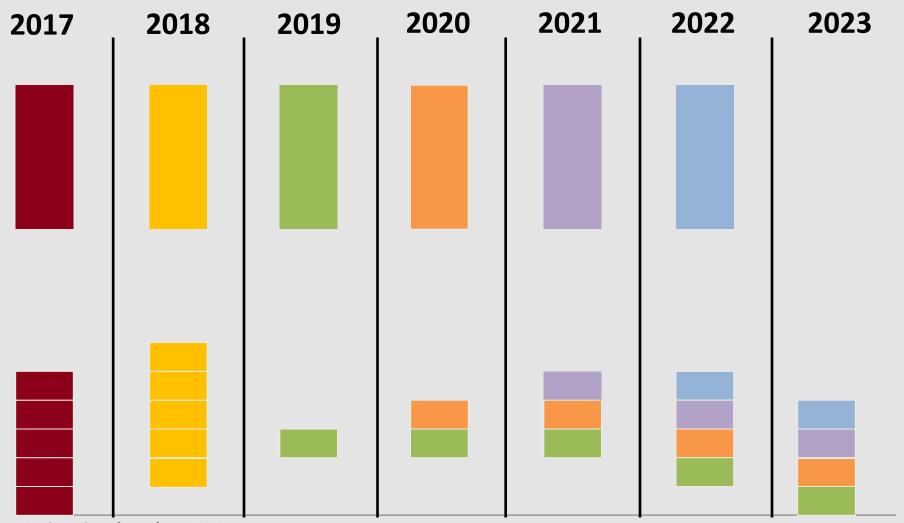
Each year, gains and losses are spread over 5 years

Bases (layers) are created

Reduces the potential for contribution spikes

If funded ratio is over 100%, the bases are eliminated

Amortization of Unfunded



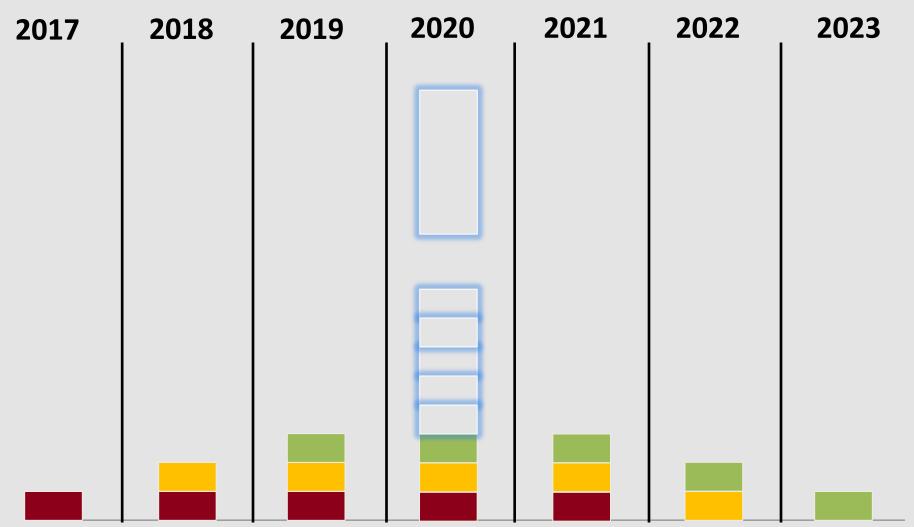
Amortization of Gains



A Note About Gains

- Everyone loves gains, but they must be handled just like losses
- Gains must also be spread over 5 years
- Although the full impact is not felt immediately, it does decrease future contributions

Amortization of Gains



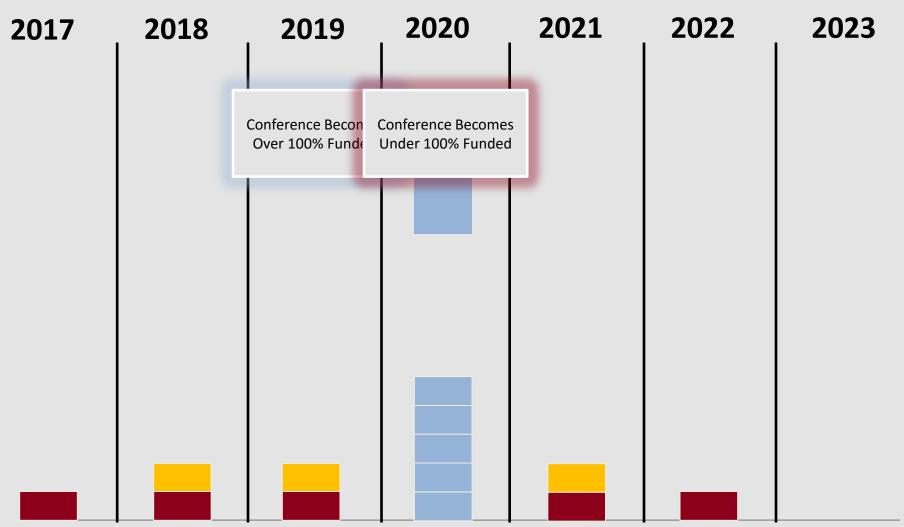
More Than 100% Funded

What happens if plan is funded more than 100% in any year?

All remaining bases (layers) get eliminated

Process for gains/losses starts anew the next year

More Than 100% Funded

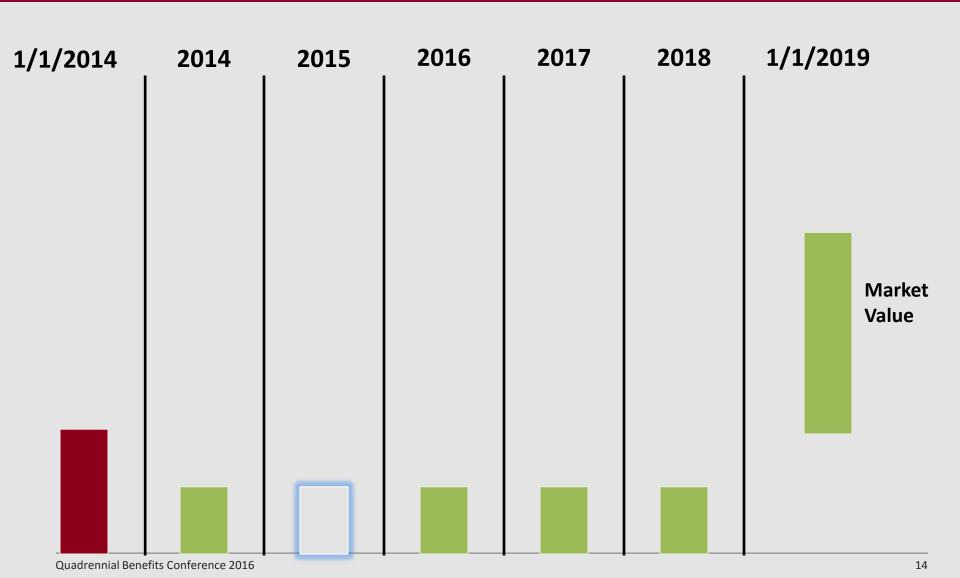


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No Asset Smoothing



Asset Smoothing—Introduction

- Market value of assets can be quite volatile
- Asset smoothing is a method of reducing that volatility
- Asset smoothing typically involves deferring the recognition of asset gains and losses
 - The full impact of asset swings would not be felt immediately
- This means the full impact of both losses and gains will be delayed

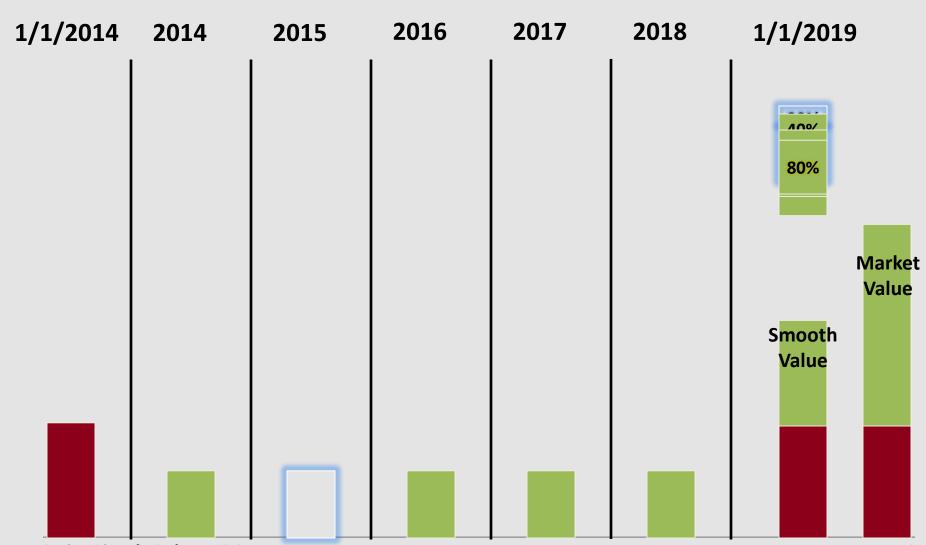
Asset Smoothing—Details

- Asset gains and losses will be smoothed over 5 years
- Smoothed assets will not be allowed to differ from market value of assets by more than 20%
 - This is known as the "boundary"

Asset Smoothing—How it Works A Single Gain or Loss

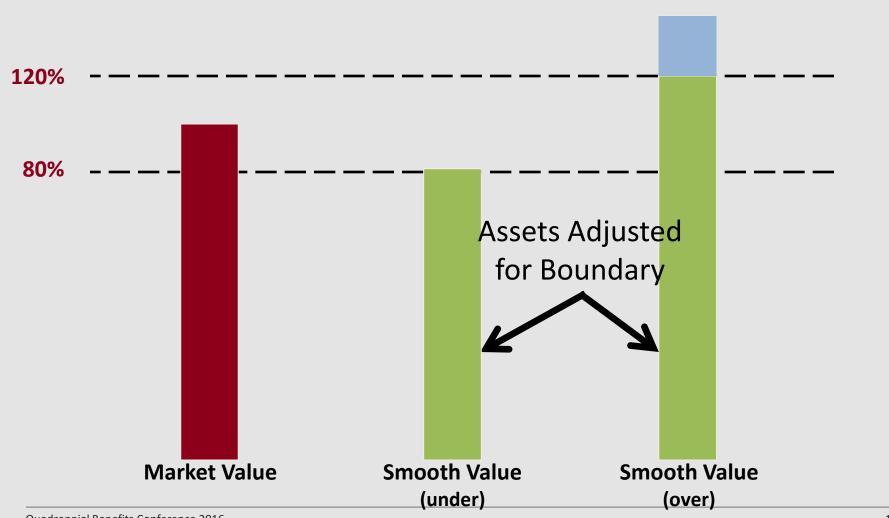
- So imagine there was a gain in 2014, as of:
 - January 1, 2015: 80% of that 2014 gain is deferred (not recognized) in the smoothed assets
 - January 1, 2016: 60% of that 2014 gain is deferred (not recognized) in the smoothed assets
 - January 1, 2019: The 2014 gain will be fully recognized in the smoothed assets
- But, by January 1, 2019, there will be 4 additional years of gains and losses

Asset Smoothing—Five-Year Smoothing

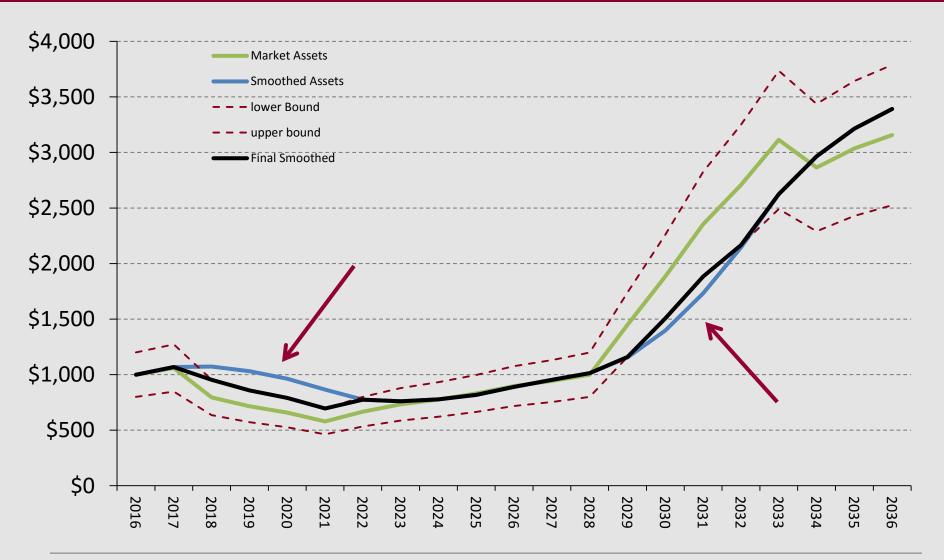


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Asset Smoothing—Boundary



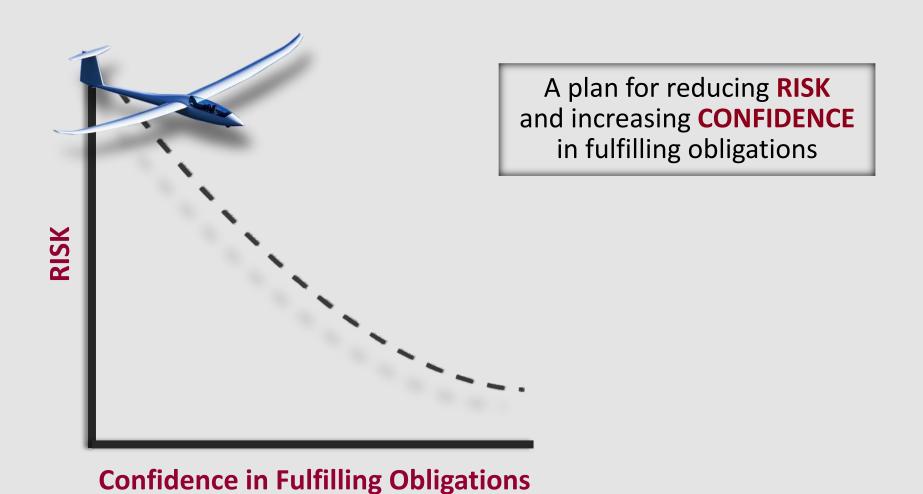
Asset Smoothing Mechanics







What Is a Glidepath?



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Factors Influencing Glide Path



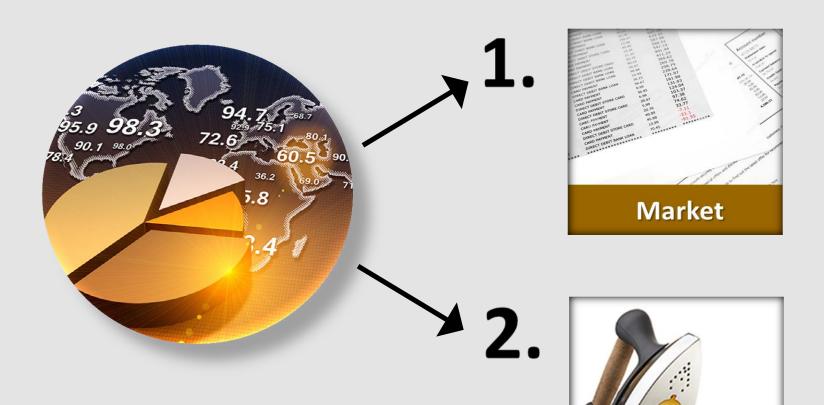








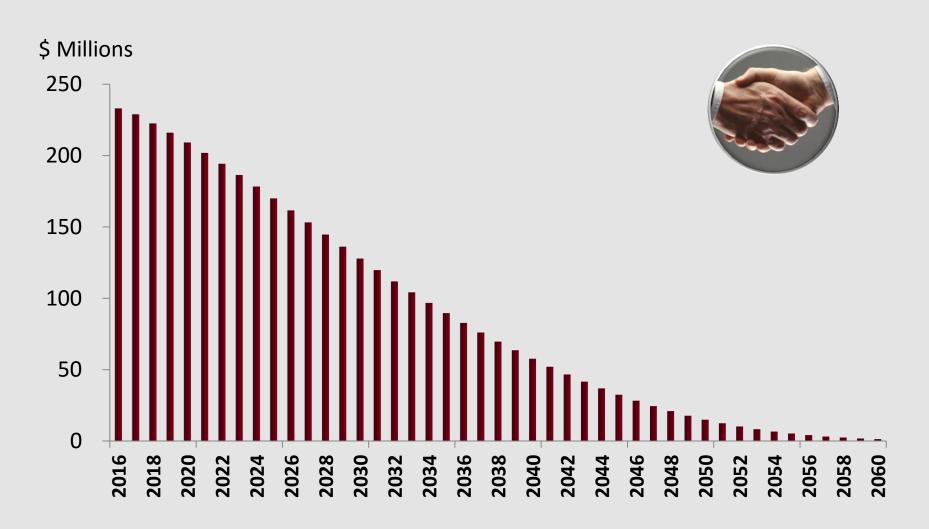
Two Methods for Determining Assets



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Smoothed

Liabilities —Forecasted Benefit Payments



Two Types of Discount Rates





Funding Discount rate

6.625%

CURRENT

Market Discount rate

3.69%

CURRENT

Funded Ratios

Funding Funded Ratio **Smoothed Assets**

Liabilities Discounted with Funding Discount Rate

= 105% CURRENT

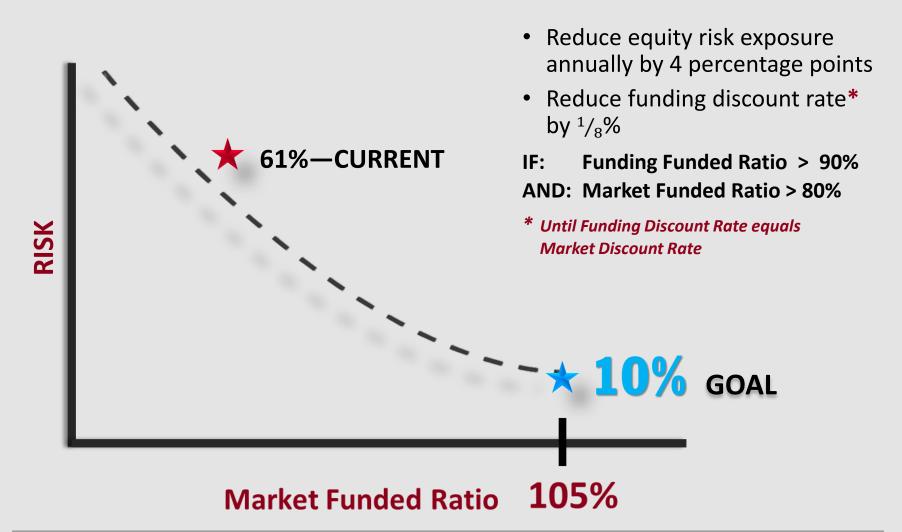
Market Ssets
Funded Ratio

Market Assets

Liabilities Discounted with Market Discount Rate

= 80%
CURRENT

Pre-82 Plan Glidepath





Corridor Funding



Corridor Funding Guidelines

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

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

Corridor Funding—Summary

- Determining corridor on market basis ensures true current funded status is understood
- Determining amortization of unfunded liability on funding basis recognizes the need to reduce contribution volatility
- Reducing equity exposure as funded status improves increases the probability of maintaining surplus





Valuation Results—Asset Returns

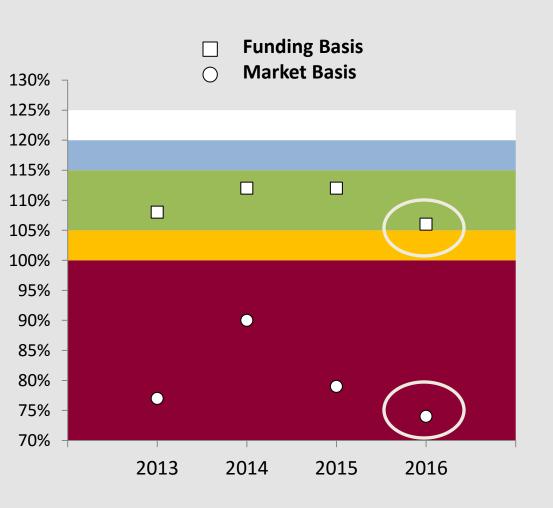
	2014 Returns		2015 Returns	
	Actual	Expected	Actual	Expected
CRSP DB	4.100%	7.000%	-2.560%	7.000%
MPP Annuities	4.640%	6.250%	-0.800%	6.250%
Pre-82	4.100%	6.750%	-2.500%	6.625%

Valuation Results Asset Smoothing Impact on January 1, 2016

In \$ millions	Market Assets	Smoothed Assets	Impact
CRSP DB	1,452	1,530	78
MPP Annuities	3,374	3,600	226
Pre-82	2,199	2,275	76

At January 1, 2016, asset smoothing resulted in higher assets for all plans. However, there is potential for smoothing to result in lower or higher assets in future years.

Corridor Funding Results



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100 – 104.9%	Normal Cost ¹	40%
Under 100%	Normal Cost ¹ Plus Payment on Unfunded Liability	40%

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

Valuation Results CRSP DB and MPP Annuities

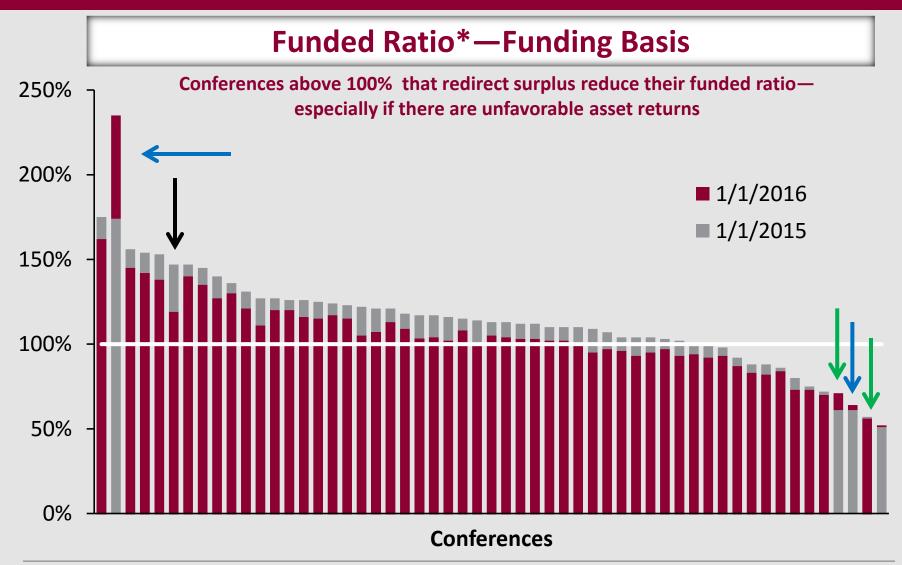
Funded Ratio—Funding Basis

	January 1, 2015	January 1, 2016*
CRSP DB	111%	108% / 102%
MPP Annuities	112%	105% / 99%
Combined	112%	106% / 100%

Note: 2016 reflects new mortality assumptions and asset smoothing

^{*}Using smoothed assets / Using market assets

Valuation Results—Pre-82 Plan



Valuation Results Pre-82 Funded Ratio History—Funding Basis

Valuation Year	Contribution Year	Funded Ratio Using All Assets	Funded Ratio Excluding "Funding Surplus"
2010	2012	108%	92%
2011	2013	113%	93%
2012	2014	106%	93%
2013	2015	105%	93%
2014	2016	112%	95%
2015	2017	114%	96%
2016	2018	105%*	95%*

^{*}Assumes no change in Past Service Rate (PSR)





Comprehensive Protection Plan (CPP) Holiday



CPP holiday granted 2018 and 2019



Still collect from local churches



Use to pay higher DB contribution or save for a rainy day



