Dividend Reserve Options

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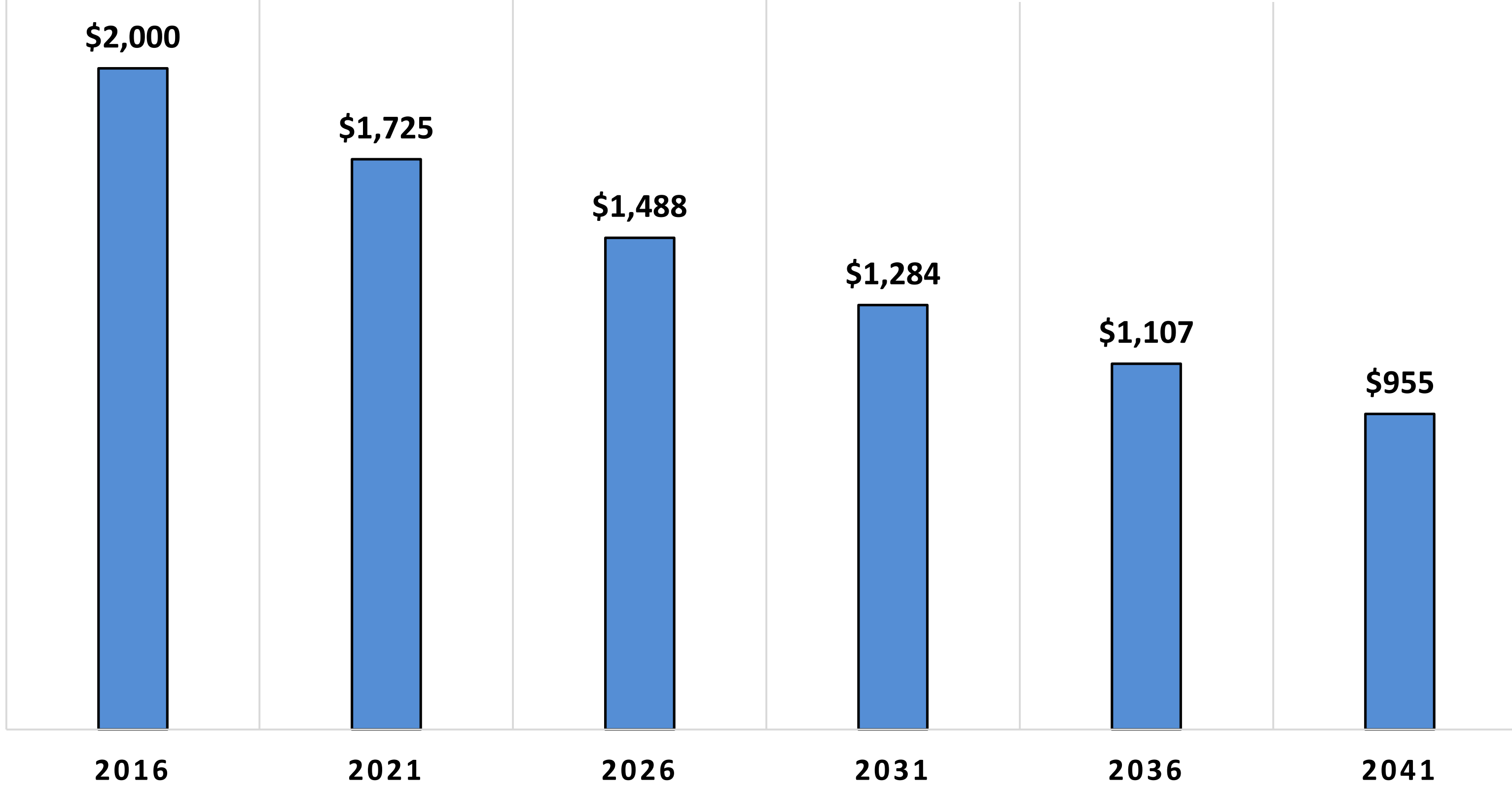
December 15, 2016

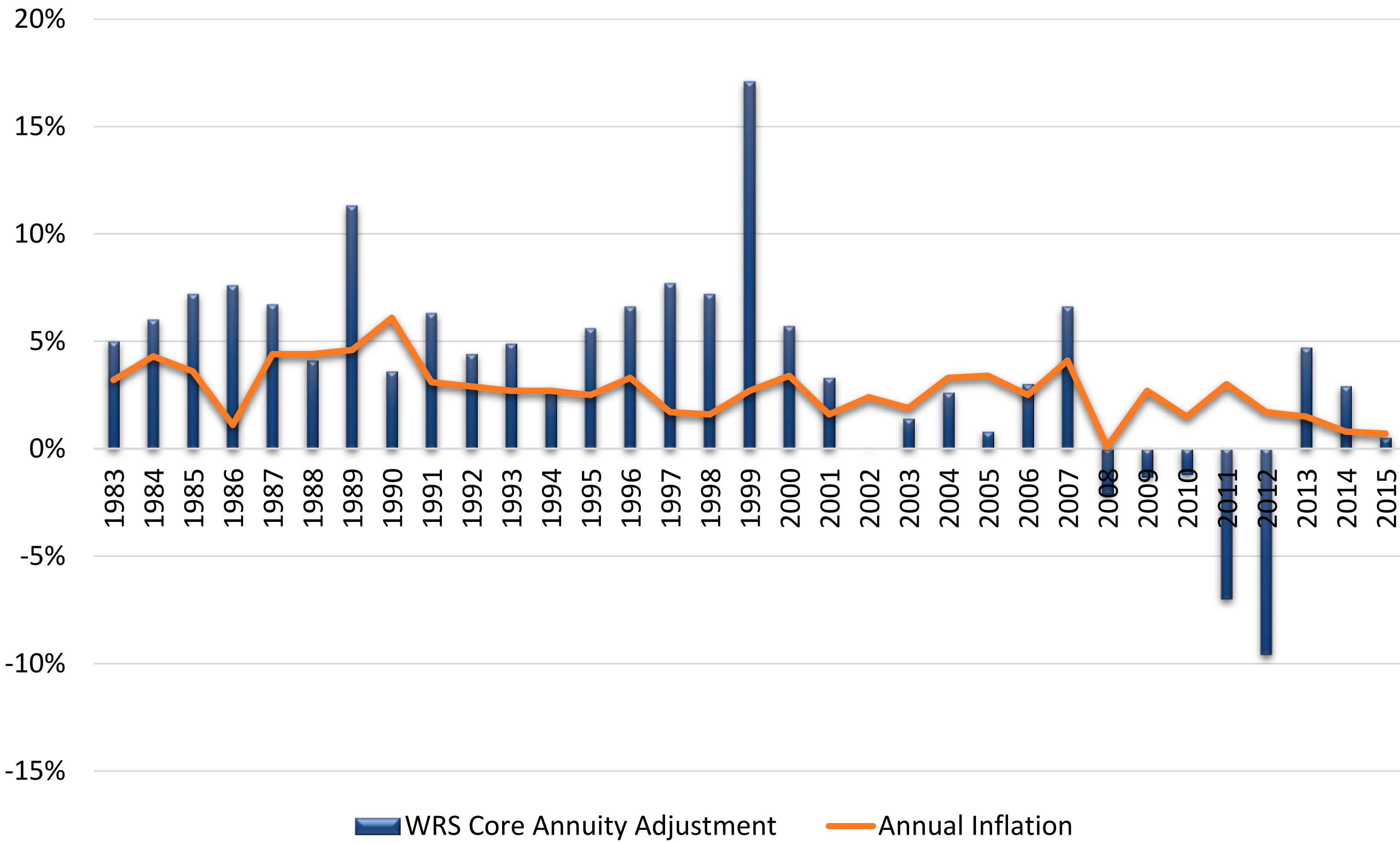
Why are Annuity Adjustments Important?

(chart depicts an unadjusted $2,000/month benefit with 3% inflation)

Current Life Expectancy Estimates		
	Men	Women
At Birth	76.4	81.2
At age 65	83	85.5



Core Annuity Adjustments vs. Inflation 1983-2015



GRS Models of Dividend Reserve Options

- Projections of hypothetical options based on limited set of assumptions.
- Stochastic Analysis of 1,000 simulated market returns.
- Likelihood that:
    1. Dividend Reserve will be depleted.
    2. Dividends will be negative in a given year.
- Approaches examined:
    1. Status quo
    2. Cap and Reserve
    3. Dividend Delay
    4. Dividend Lock

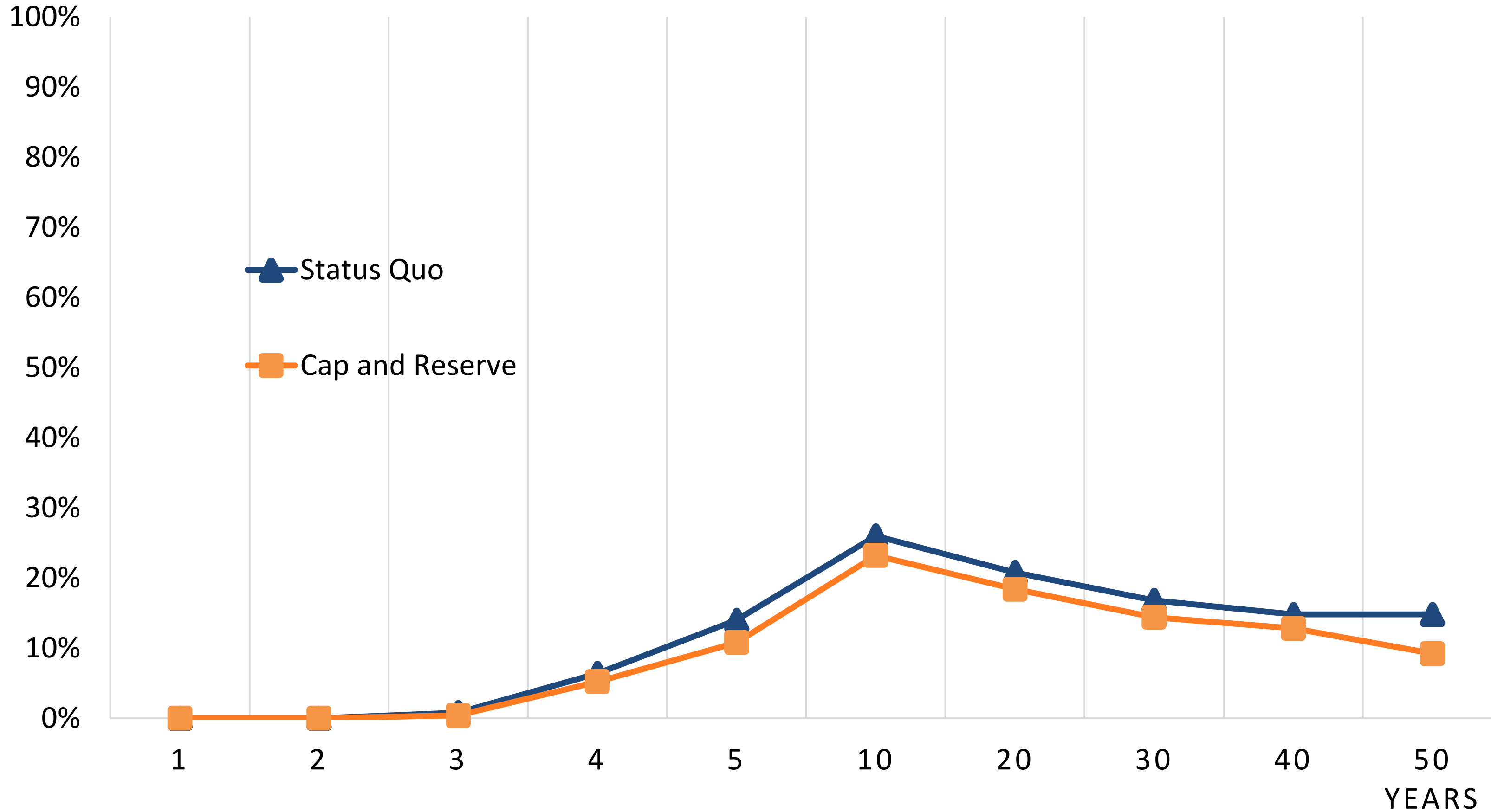
Cap and Reserve

- Limit dividends to annual inflation but no more than 3%.
- Surplus dividends are reserved in a “Dividend Reserve Account”.
- Only used to offset a negative dividend back to zero, if possible.
- Questions
  - How much offset?
  - How to keep reserve from getting too large?

Cap and Reserve

Probability of Dividend Reserve Depletion

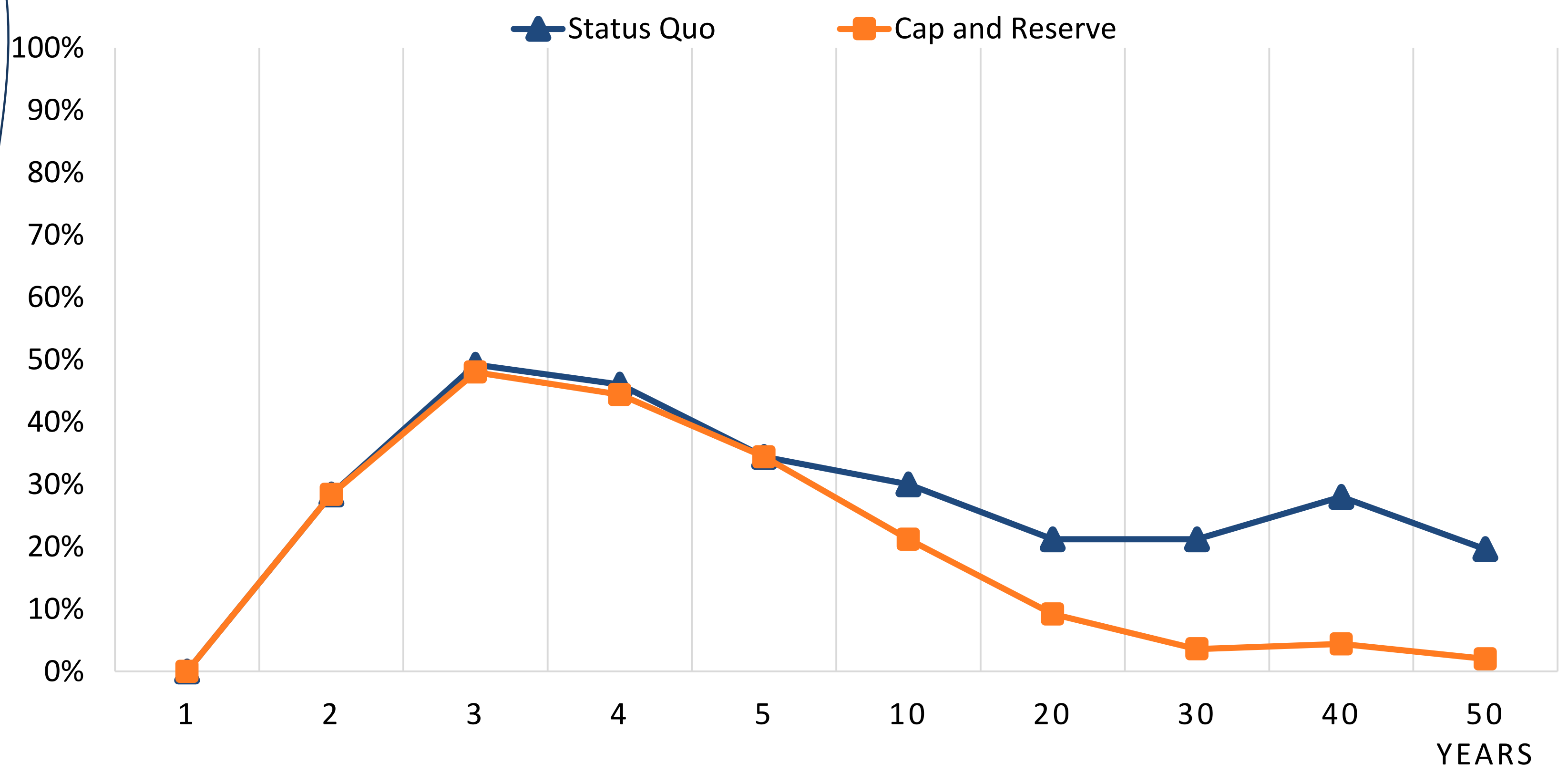
(Assuming 7.2% Return in Year 1)



Cap and Reserve

Probability of a Negative Dividend in a Given Year

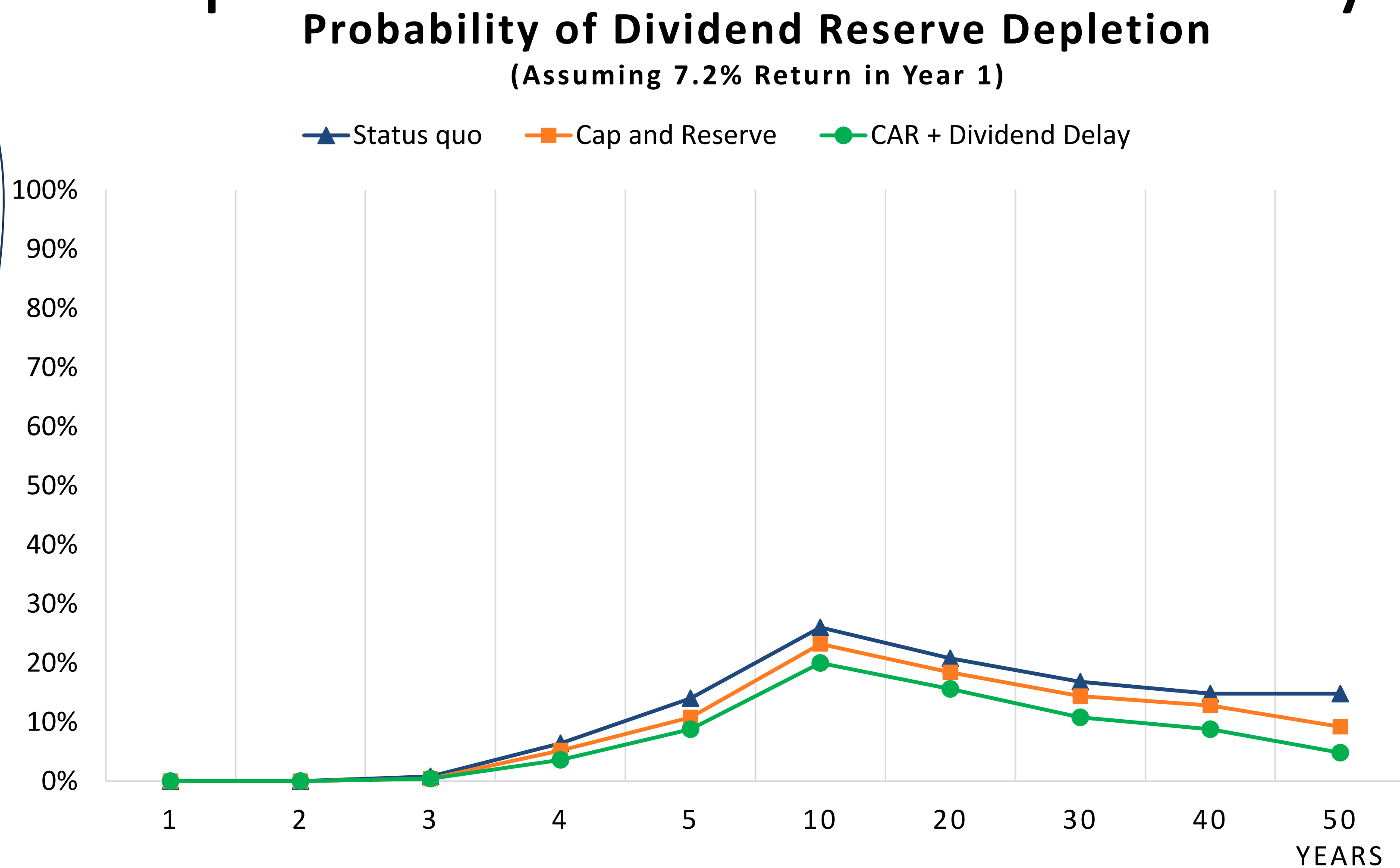
(Assuming 7.2% Return in Year 1)



Cap and Reserve + Dividend Delay

- Dividend Delay is in addition to CAR.
- Dividends for new retirees begin after five years of retirement.
- Dividends that would have been paid in first five years of retirement would help build up the Dividend Reserve Account.
- Questions:
  - Return-to-work situations?
  - Equity for early retiree vs. normal retirement age retiree?

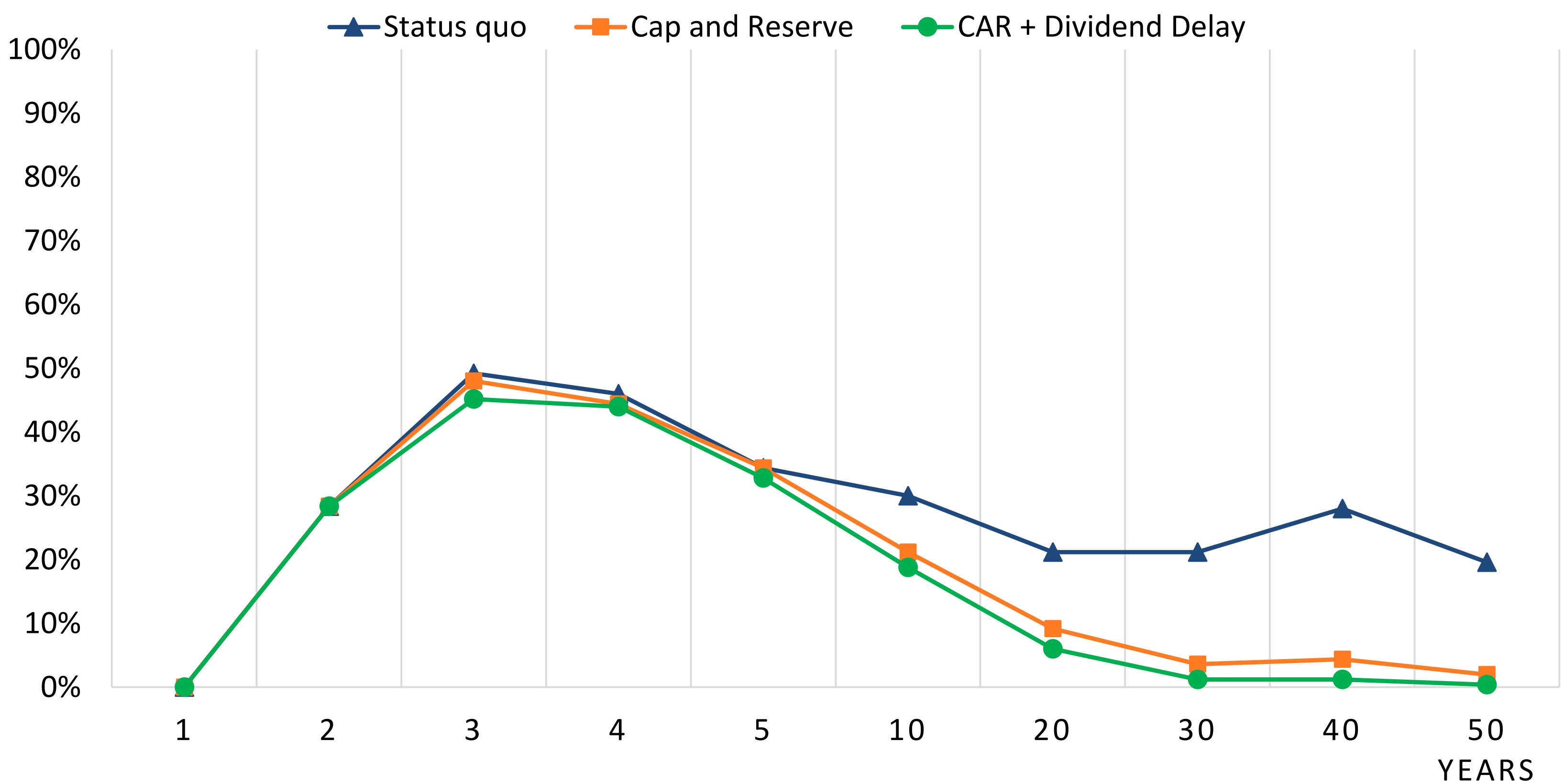
Cap and Reserve + Dividend Delay



Cap and Reserve + Dividend Delay

Probability of Negative Dividend in a Given Year

(Assuming 7.2% Return in Year 1)



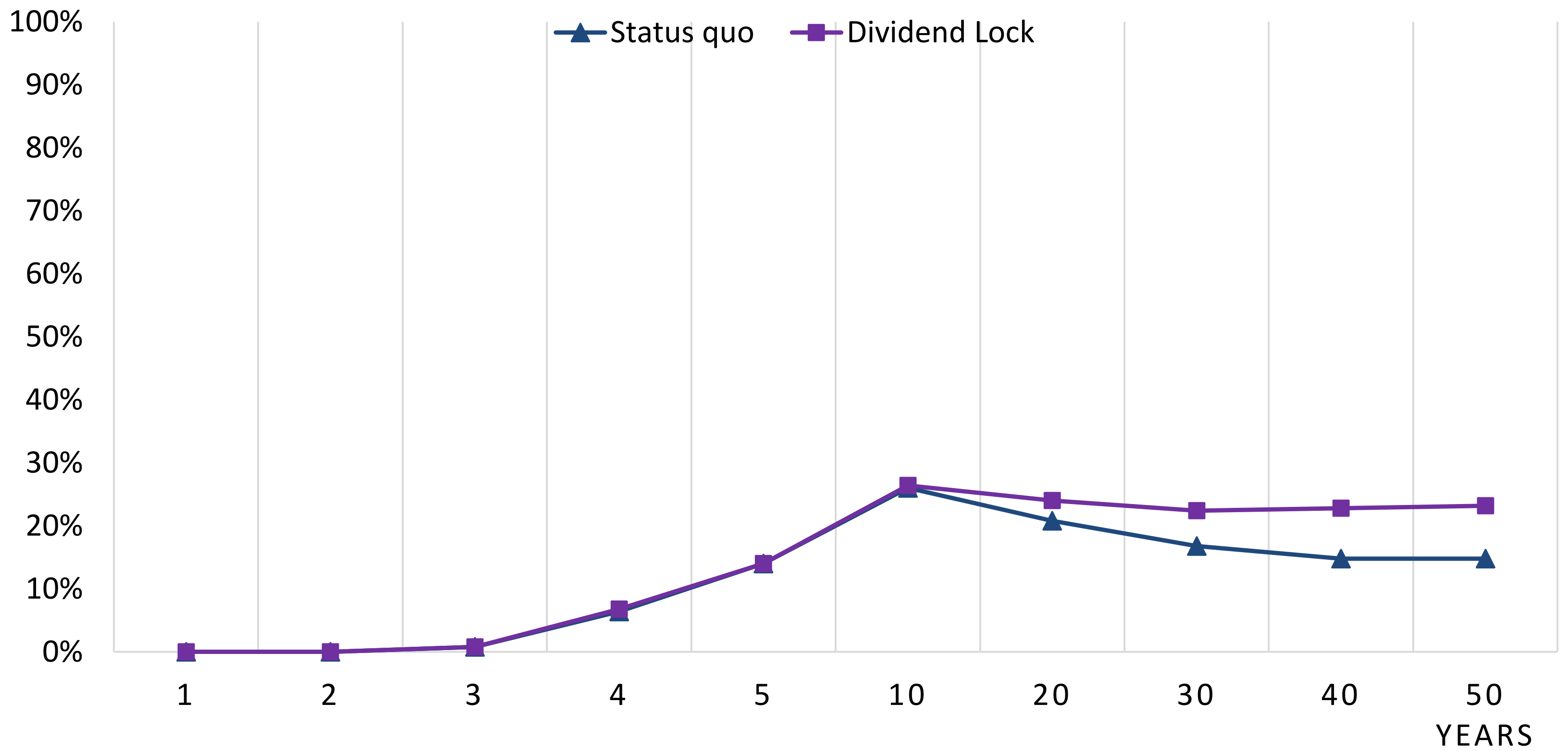
Dividend Lock

- Not an option that reduces risks but improves equity.
- Allow retirees that achieve a certain age to lock in all dividends accumulated to that age.
- Members can earn additional dividends after the target age, but dividends could not be reduced in the future below the level accumulated to the target age.
- GRS used age 80 years in their modeling.

Dividend Lock

Probability of Dividend Reserve Depletion

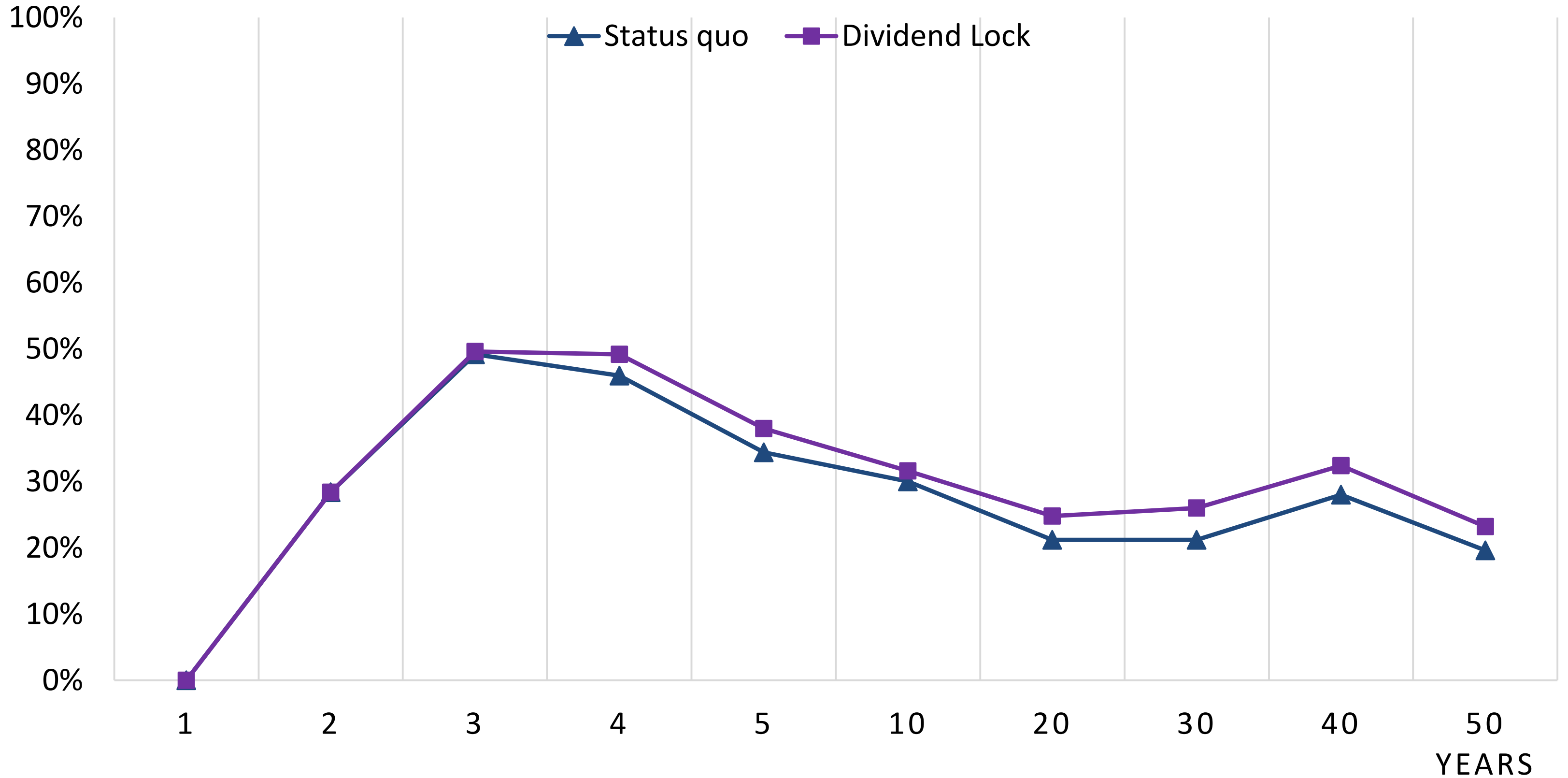
(Assuming 7.2% Return in Year 1)



Dividend Lock

Probability of Negative Dividend in a Given Year

(Assuming 7.2% Return in Year 1)



Summary

- Modeled outcomes are greatly dependent on the starting investment return. This presentation used a 7.2% assumption.
- Cap and Reserve alone and with Dividend Delay show limited effectiveness in decreasing risk of dividend depletion.
- Over the long term (10 years or more), Cap and Reserve decreases likelihood of negative dividends in a given year.
- Dividend delay has only small impacts.

Questions/Comments