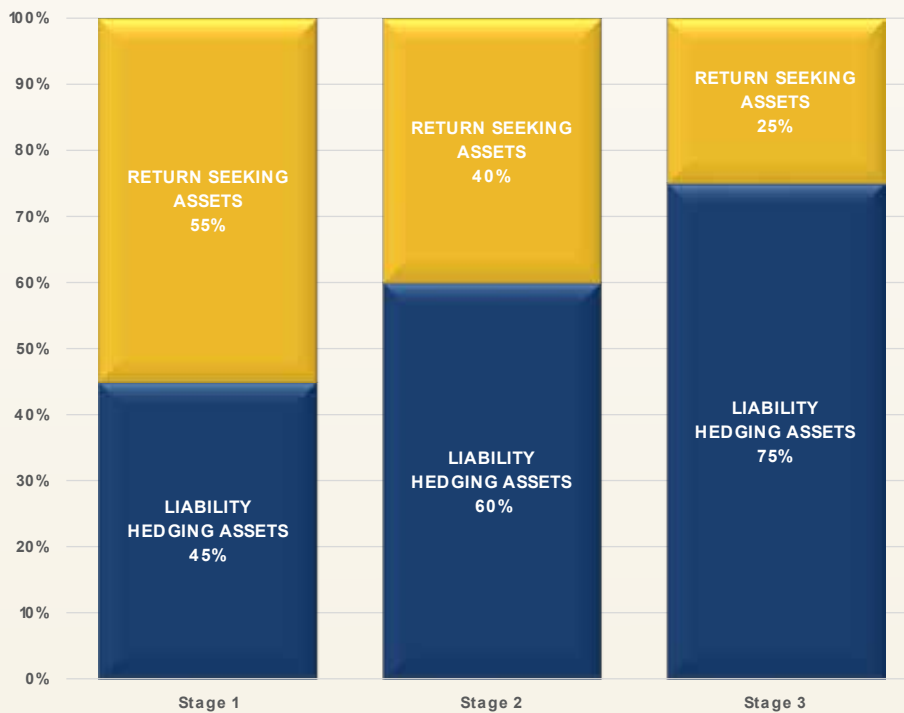


# Have you Truly Immunized Your Pension? Probably not!

Despite having achieved an overall portfolio hedge using pooled fixed-income products, the possibility of a mismatch within key-rate duration segments may still exist. This could expose your plan to unanticipated funding and contribution risk due to interest rate movements. To counter the risk, Advanced Capital Group’s investment team offers a custom allocation, using individual fixed-income securities, in an attempt to match the plan’s hedging assets with the individual liability duration segments. A high level of customization enhances the effectiveness of the plan’s overall hedge ratio and immunizes the portfolio against various forms of interest rate shocks.

## DYNAMIC GLIDE PATH

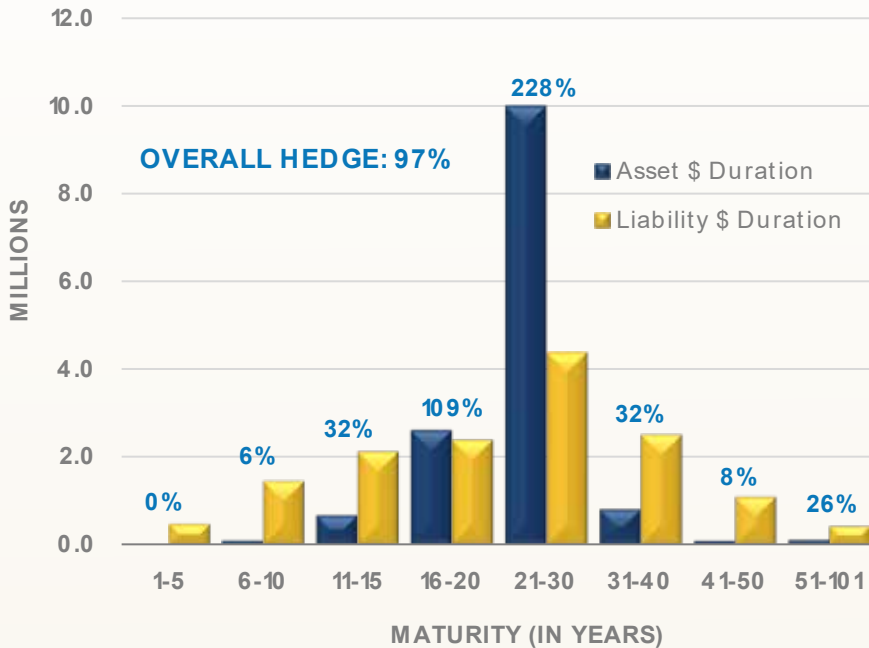


ACG incorporates a dynamic glidepath which allows plan sponsors the ability to de-risk by gradually moving from an environment where return-seeking assets are dominant in the portfolio to a liability immunization focused strategy. As a plan reaches a higher funded status the amount of volatile return-seeking assets is reduced thereby adding an element of stability to the portfolio. The hedged assets will capture our focus for the balance of the analysis.

## Glide Path Stages Relative to Ratios

	STAGE 1	STAGE 2	STAGE 3
Funded Ratio	<80%	80-110%	>110%
Hedge Ratio	~55%	~70%	~85%

# Common Hedged Asset Profile



## ETF/MUTUAL FUND HEDGED ASSETS

### Uncertain duration profile

- ▲ Uneven distribution of cash flows
- ▲ Return-focused strategy without recognition of funding status or needed contributions

### Introduces unwanted variability

- ▲ Mismatch occurs when capital markets shift
- ▲ May be correlated with your business model

### Cost savings of common strategy?

- ▲ Perceived convenience could be costly
- ▲ ACG may offer a custom strategy for less

We analyzed a representative \$100mm pension plan which used pooled funds to immunize liabilities, achieving an overall hedge ratio of 97% (see above). Compare that to a custom portfolio where the dollar duration of the assets and liabilities are matched, obtaining a 98% hedge ratio (see below). Although both portfolios achieve a similar overall hedge ratio, the hedging benefits of the two portfolios can be vastly different, as shown on the following pages. Maturity segment mis-matches may expose the plan to increased variability in funding ratios, the possibility of additional required contributions and the potential of higher variable PBGC premiums.

## ACG HEDGED ASSET PORTFOLIO

### Liability hedged portfolio

- ▲ Tailored portfolio truly matches the liability profile
- ▲ Stabilizes funding ratio & future contributions

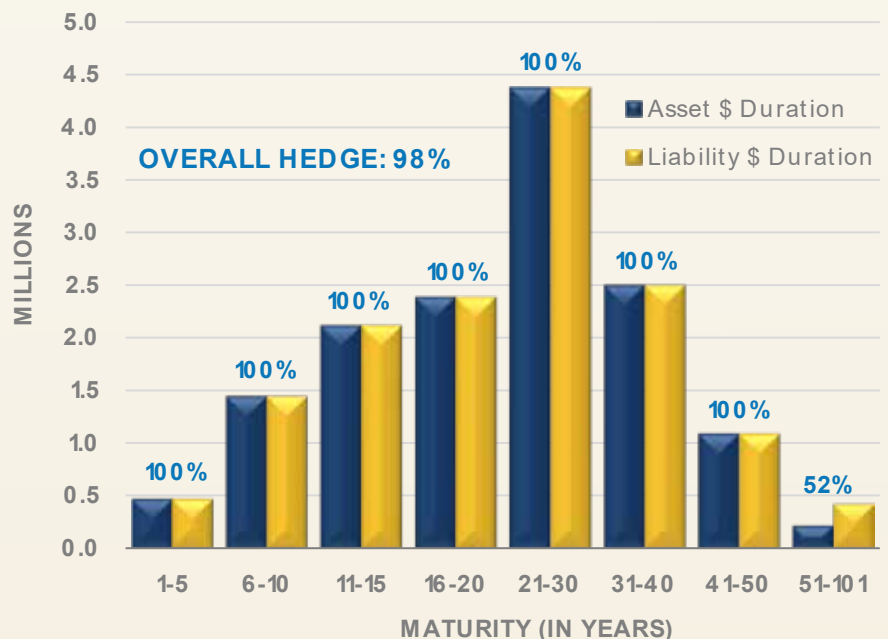
### Custom portfolio accomodates change

- ▲ Flexibility within an evolving glide path
- ▲ Portfolio customized to complement business risks and meet plan goals

### Comprehensive advisory fee

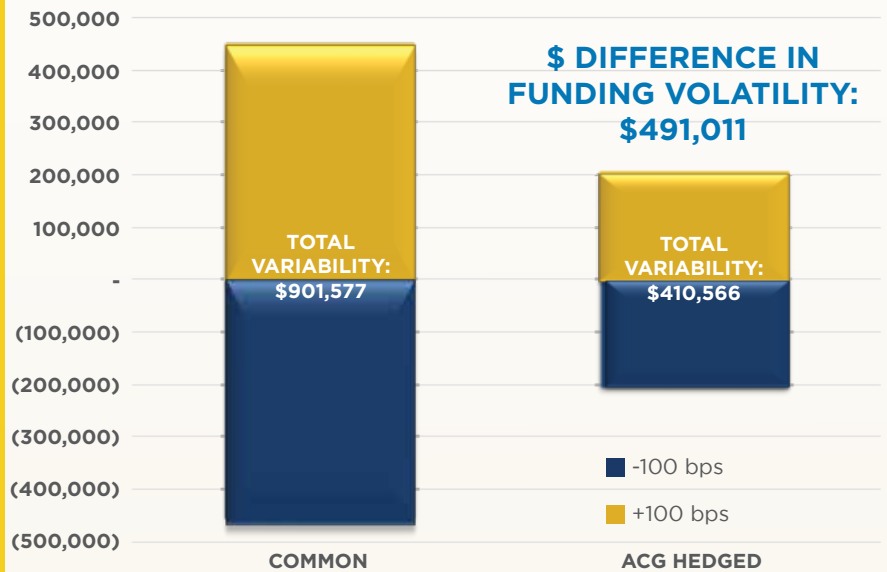
- ▲ Includes asset management services

# ACG Hedged Asset Profile



# Change in the Value of Assets & Liabilities

+/- 100 BPS PARALLEL YIELD SHIFT\*

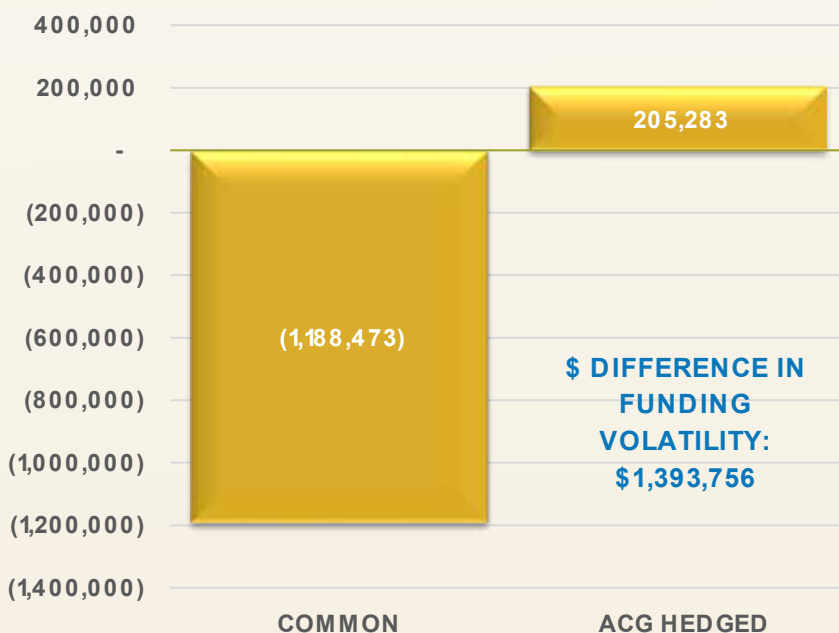


## POTENTIAL BENEFITS

- ▲ Tailored key-rate duration matched strategies reduce funding-ratio volatility when compared to common fund strategies
- ▲ Custom approach allows assets to better mimic liabilities improving the liability tracking error
- ▲ Managing funding-ratio volatility limits contribution surprises and their impact on financial performance

# Risk of Key-Rate Duration Mis-match

NON-PARALLEL YIELD TWIST\*



## ADDITIONAL BENEFITS

- ▲ Parallel shifts in the curve produce the smallest funding variability although rarely occur while non-parallel shifts are more realistic
- ▲ Opportunity cost of the common hedge strategy is meaningful with a twist
- ▲ The largest risk for DB plans can be substantially mitigated using a custom hedging approach

## Considerations:

- ▲ Tailored immunization strategy with a concentration on key-rate durations alters the focus from a total return approach to an asset/liability relationship.
- ▲ Portfolio duration hedging using pooled products results in a perceived, but not realized, value when applied to realistic yield curve changes.
- ▲ Stability of the liability tracking error aims to reduce contribution surprises and their related effects on the financial statements.
- ▲ Over time, a dynamic glide path will allow a plan sponsor to de-risk the asset portfolio. Custom glidepath allows for an immunization strategy to be applied to plans of all funding levels.
- ▲ Actual capital market movements can be somewhat mitigated with a more granular investment approach such as key-rate liability immunization.
- ▲ Advanced Capital Group's defined benefit investment management strategy offers the potential for significant savings over other approaches.



### Put our vision to work for you

We are passionate about fostering creative ideas and exploring new opportunities for the benefit of your clients. Contact us to learn how a customized relationship can help you succeed.

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