

Optimizing Guaranteed Lifetime Withdrawal Benefit (GLWB) Allocation in a Retirement Income Portfolio

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GLWB Overview

- A Guaranteed Lifetime Withdrawal Benefit (GLWB) is used with a customer's assets to guarantee an annual income payment stream through retirement:
 - Annual income payment is typically 4% to 7% of the customer's Benefit Base
 - Benefit Base is initially set at asset value when the customer elects the GLWB and has opportunity to increase with increases in the underlying assets
- Customer benefits:
 - Customers benefit from the growth potential of equities by periodically locking in higher income
 - Customer's retirement income is protected from market declines
 - If assets decline to zero as a result of withdrawals, income is guaranteed for life of the customer
 - Customers can access their asset value at any time (any withdrawal in excess of the guaranteed annual payment will reduce future payments)

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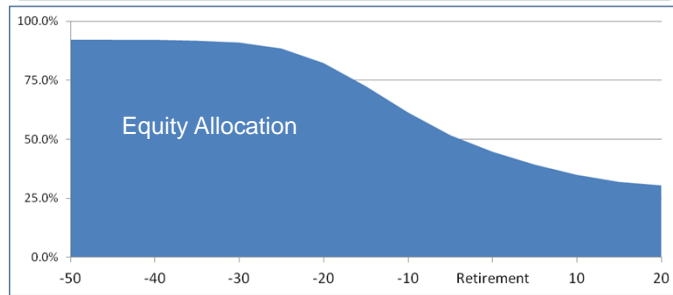
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Cost and Benefit of GLWB Protection

- Great-West worked with Ibbotson Associates (Ibbotson) to evaluate the cost and benefit a portfolio with GLWB compared to a 'typical' asset allocation strategy for retirement and to determine when the GLWB should be added:

1) Typical Asset Allocation Strategy

- Equity allocation declines to and through retirement
- Withdrawals are not guaranteed



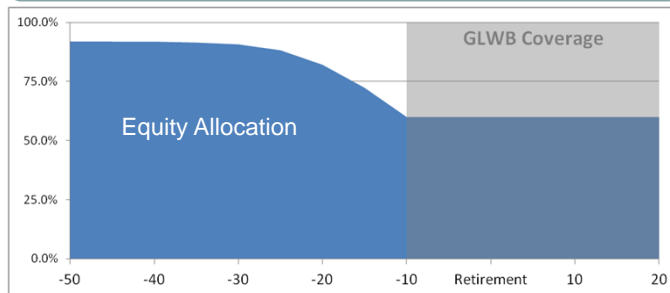
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Cost and Benefit of GLWB Protection

- Great-West worked with Ibbotson Associates (Ibbotson) to evaluate the cost and benefit a portfolio with GLWB compared to a 'typical' asset allocation strategy for retirement and to determine when the GLWB should be added:

2) Add GLWB 10 Years before Retirement

- Equity allocation remains at 60% when GLWB added
- Withdrawals are guaranteed



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Cost and Benefit of GLWB Protection

- The following results demonstrate how income and wealth vary with and without GLWB allocation assuming:
 - \$300,000 starting retirement savings balance at age 55
 - Annual retirement income starting at age 65
 - GLWB features:
 - Cost: 0.95%
 - Potential for annual Benefit Base increase
 - Withdrawals at 5% of Benefit Base

- Shaded boxes show preferable strategy for retiree.

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Cost and Benefit of GLWB Protection: Income

- In positive markets: GLWB solution allows participation in good market resulting in higher income than with a typical asset allocation strategy
- In poor markets: GLWB allocation is critical to maintaining consistent retirement income

Age	65	70	75	80	85	90	95
75th Percentile							
1) Typical Asset Allocation Strategy	\$55,788	\$61,086	\$63,752	\$64,927	\$65,301	\$61,099	\$46,352
2) Add GLWB 10 Years before Retirement	\$55,788	\$61,086	\$63,752	\$65,227	\$66,597	\$67,479	\$68,317
1st Percentile							
1) Typical Asset Allocation Strategy	\$33,682	\$33,912	\$34,071	\$17,547	\$17,000	\$17,000	\$17,000
2) Add GLWB 10 Years before Retirement	\$33,682	\$33,912	\$34,071	\$34,071	\$34,071	\$34,071	\$34,071

Income Starts at age 65; \$17,000 from Social Security

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Cost and Benefit of GLWB Protection: Wealth

- In positive markets: GLWB allocation allows participation in good market resulting in higher wealth than with a typical asset allocation strategy
- In poor markets: When wealth is eliminated, GLWB is critical to providing necessary income

Age	60	65	70	75	80	85	90	95
75th Percentile								
1) Typical Asset Allocation Strategy	\$571,385	\$757,364	\$730,927	\$646,404	\$544,796	\$408,210	\$234,405	\$44,148
2) Add GLWB 10 Years before Retirement	\$557,940	\$737,746	\$732,567	\$674,231	\$602,585	\$499,202	\$356,128	\$202,857
1st Percentile								
1) Typical Asset Allocation Strategy	\$277,933	\$278,464	\$188,938	\$100,189	Wealth = \$0			
2) Add GLWB 10 Years before Retirement	\$256,714	\$233,418	\$120,361	\$8,504	Wealth = \$0; GLWB provides income			

Income Starts at age 65; \$17,000 from Social Security

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Cost and Benefit of GLWB Protection: Conclusion

- GLWB allocation helps optimize a typical asset allocation strategy for generating retirement income

Income

- Investor is guaranteed never to run out of the stream of payments expected from their retirement savings

Wealth

- By guaranteeing income, the investor can maintain a more aggressive equity exposure through retirement

- About 10 years prior to retirement is the ideal time to take advantage of positive markets by maintaining equity exposure while protecting from the impact of poor markets right before retirement

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Adding GLWB: How Much is Enough?

Factor	Highest GLWB Allocation If...	Reason
Risk Tolerance	Low	Guaranteed Income gives peace of mind
Expected Longevity	Long	Retiree may outlive retirement saving
Income Gap	Moderate	<ul style="list-style-type: none"> ▪ Guaranteed Income unnecessary if significant income from elsewhere ▪ Large income gap may indicate need for payout annuity (loss of liquidity)
Wealth	Low to Moderate	Guaranteed Income unnecessary if able to draw on substantial liquid resources for expense needs

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