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Achieving Retirement Income Security:

A Comparison of Guaranteed Lifetime Withdrawal Benefit, Systematic Withdrawal and Partial Variable Annuity Strategies

An immediate variable annuity combined with a liquid asset account offers the best mix of income generation, risk management and estate potential for most retirees.

Retirement-income products often try to satisfy multiple—and sometimes conflicting—objectives because retirees want features that provide guaranteed income, inflation protection, liquidity, asset growth and the potential for an estate. In the paper summarized here, Achieving Retirement Income Security: A Comparison of Guaranteed Lifetime Withdrawal Benefit, Systematic Withdrawal and Partial Variable Annuity Strategies, Benjamin Goodman, TIAA, and David P. Richardson, TIAA Institute, gauge how well retirees' objectives are met through three potential retirement-income strategies.

Benefits and drawbacks of each strategy

The retirement-income strategies examined in this study each offer key benefits and drawbacks:

- *Guaranteed Lifetime Withdrawal Benefit* (GLWB) is an insurance product that provides a guaranteed minimum amount of lifetime income, asset liquidity and the potential for added income from portfolio gains. However, this strategy also entails higher annual fees than alternative strategies.

- *Partial Variable Immediate Annuity* (Partial VIA) combined with a liquid asset account provides protection against longevity risk, some asset liquidity and the potential for added income from portfolio gains. But this strategy does not guarantee a minimum income, because VIA payments are based on the performance of underlying investments.

- *Systematic withdrawal* is a retirement-income strategy in which the retiree draws a fixed amount of cash annually from personal assets. This approach, relative to the others, gives the retiree the most flexibility and control over savings, but the retiree bears all income-related risks.

To simulate the outcomes a retiree using these income methods would have achieved over the past 90 years, the researchers analyzed historical asset return and inflation data. Table 1 shows the number of times since 1926 a retiree would have outlived assets using systematic withdrawal and Partial VIA, based on varying assumptions. Table 2 shows each strategy's median estate value at the end of the periods studied.

Table 1: Retirement-income strategy failure rates

Withdrawal Rate	Years	Simulation Runs	Equity Percent	# of Failures: Withdrawal	# of Failures: Partial VIA
5.0%	30	709	50%	28	0
4.5%	35	649	50%	0	0
5.5%	25	769	50%	39	26
5.0%	30	709	60%	54	46
4.5%	35	649	60%	44	11
5.5%	25	769	60%	41	54

Table 2: Median estate values under each strategy

Withdrawal Rate	Years	Equity Percent	GLWB Median Balance	Withdrawal Median Balance	Partial VIA Median Balance
5.0%	30	50%	$99,500	$216,800	$253,800
4.5%	35	50%	$156,600	$372,000	$441,000
5.5%	25	50%	$85,700	$153,100	$170,000
5.0%	30	60%	$128,000	$270,100	$308,100
4.5%	35	60%	$197,800	$455,000	$528,500
5.5%	25	60%	$113,200	$201,900	$215,900

Source: Author calculations

Systematic withdrawal and Partial VIA generally match GLWB income—and leave larger estates

As shown in Table 1 on the prior page, assuming a portfolio evenly split between equity and bonds and a 5% GLWB withdrawal rate, there were:

- Zero 30-year periods when the Partial VIA strategy generated less income than the GLWB strategy.
- Twenty-eight 30-year periods out of 709 (about 4%) when systematic withdrawal produced less income than a GLWB, and the starting dates all occurred before the 1929 stock market crash.

Likewise, when the GLWB withdrawal rate was lowered to 4.5% and the retirement period lengthened to 35 years, there were no instances when either systematic withdrawal or Partial VIA produced less income than a GLWB.

When investment risk was raised using a 60% equity to 40% bond portfolio and/or the GLWB withdrawal rate increased to 5.5%, the GLWB's returns outperformed those of alternative strategies more often at income starting dates that began before or during the Great Depression. However, there wasn't a single starting date in the past 85 years when the GLWB strategy, even under these more-favorable conditions, provided better protection than the other strategies.

> The GLWB strategy, despite the added costs, never provided better protection than the systematic withdrawal or Partial VIA strategies at any starting date over the past 85 years.

Moreover, as Table 2 shows, the GLWB's added insurance protection comes at a steep cost. At the end of the periods analyzed, the median residual estate value under the systematic withdrawal and Partial VIA strategies was always substantially higher than the value under the GLWB strategy.

For more information

To learn more about converting savings to income in retirement, go to tiaainstitute.org > Research > Lifetime Income and Retirement Security

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