

Annuity Basics

01/16/2025

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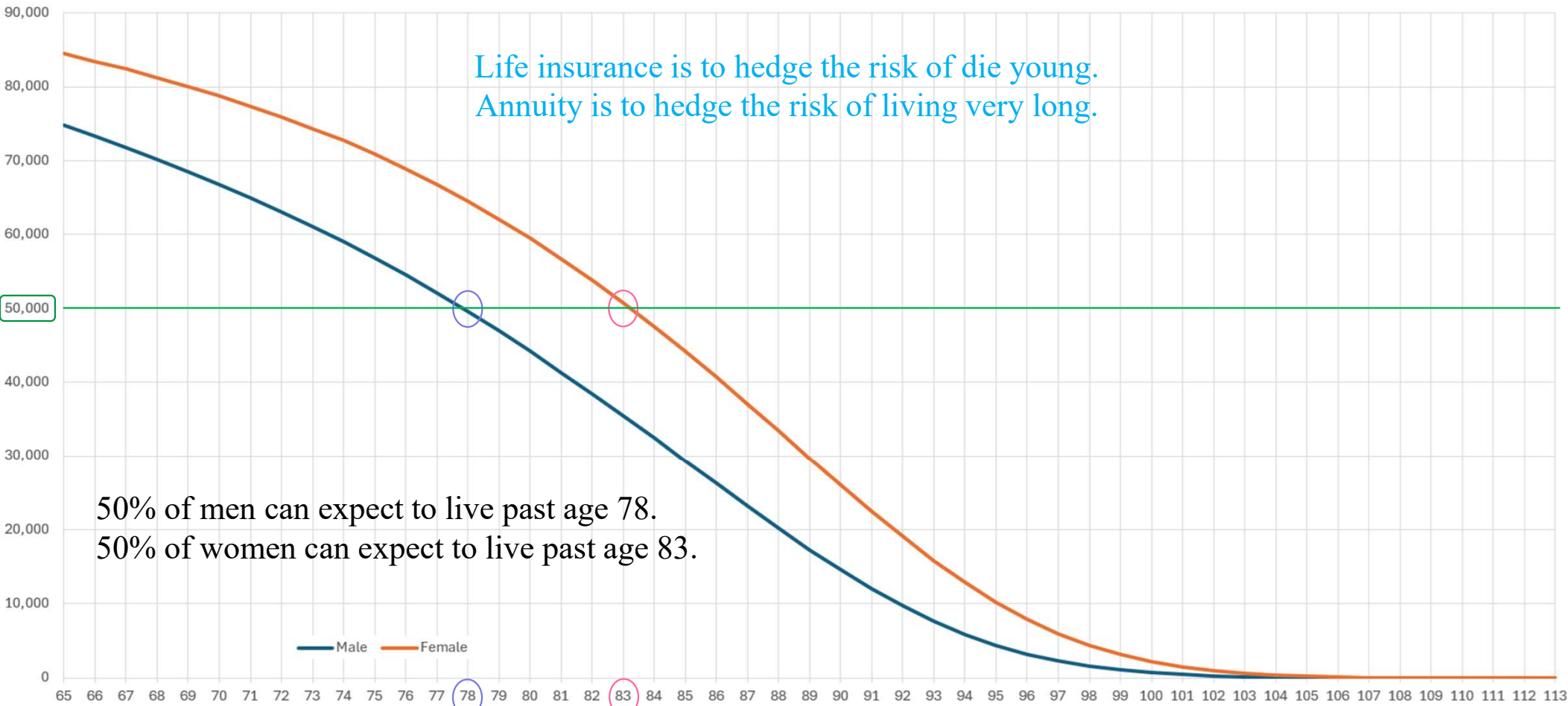
**The author is NOT a licensed insurance professional.
The author owns annuities from Fidelity and New York Life.**

Social Security Actuarial Life Table

[Actuarial Life Table \(ssa.gov\)](https://ssa.gov)

07/28/2024

Number of survivors out of 100,000 born alive



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What is an Annuity?

<https://content.naic.org/sites/default/files/publication-anb-lp-consumer-annuities.pdf>

- Primarily, an annuity is a contract with an insurance company where it promise to pay you income (**payout**) on a regular basis for a period you choose - including the rest of your life.
 - Based on when payout starts, an annuity is either **Immediate** or **Deferred**.
 - Deferred annuity prefix an accumulation period to an immediate annuity.
- Can be purchased as **Qualified** or **Non-Qualified**
 - Qualified is bought using pre-tax money such as from an IRA, 401(K), SEP, etc. All distributions will be taxed as ordinary income. Required Minimum Distribution (RMD) rules apply.
 - Non-qualified is bought using after-tax money. Only interest/gain portion of distributions are taxed as ordinary income. **RMD** rules do not apply.
- All interest and investment gains are **tax-deferred**
 - IRS treats the taxable portions of any annuity distributions as ordinary income, not (long-term) capital gains
 - Taking money out of an annuity before age 59½ may result in a 10% tax penalty!
 - Inherited annuity can be rolled into inherited IRA (qualified) or exchange into a new annuity (non-qualified)
- Exchange one annuity to another like-kind can be done tax-free (**1035 exchange**)
 - Beware of surrender charges with either contract
 - Do not surrender the old policy for cash then buy the new policy. Ask insurance company to handle it directly so no money pass through you.
- After signing the annuity contract, you have a “**free look**” period (10 days or more) to cancel without any charges.

Types of Annuities



Insurance companies sell many optional add-ons to their annuity contracts, these are called **rider**.

Deferred annuity has **two phases** (immediate annuity skips the accumulation phase):

- Accumulation Phase, no payout, contract value change based on the type of annuity.
- Payout Phase (annuitize), when you get regular payout. Some of the options are:
 - Lump-sum payment of contract value (watch out for tax brackets)
 - Partial payment of contract value
 - If you bought income rider (discussed later), its rule apply here

Surrender Charge, Free Withdrawal, Death Benefit

When you cancel an annuity before the surrender period ends, you will be charged with **surrender charge**. It is a type of sales charge used to cover commissions. It scales down with the policy holding period:

Year	1	2	3	4	5	6	7
Premier II	7%	7%	6%	5%	4%	3%	2%

Free withdrawal is the percent of contract value that you can withdraw each year without suffering penalty charges. It is usually around 10%.

Basic **death benefit**:

- If you die during the accumulation period, the death benefit is usually the greater of:
 - Contract value (your investments)
 - Minimum guaranteed surrender value
- If you die during the payout period, your beneficiaries may get:
 - Nothing
 - Contract defined lump sum
 - Continued payout if you chose such option

Insurance companies offer many add-ons (riders) that “enhance” the death benefit.

Common Fees and Charges

Administrative Fee: Pays the insurer's cost of administering the contract, processing payments, providing regulatory reporting, etc.

Mortality and Expense (M&E) Fee: Compensates the insurer for the risk of annuity recipients living longer than expected and/or death benefit for recipients dying sooner than expected.

Underlying fund charges: Fees and charges on a variable annuity's subaccounts (mutual funds); may include an investment management fee, distribution and service (12b-1) fees, and other fees.

Annual Fee: Additional flat fee. Often waived if the contract value is larger than a certain amount.

Transaction Fee: A charge for certain transactions, such as transfers or withdrawals.

Percentage of Purchase Payment: A front-end sales load or other charge deducted from each premium paid. The percentage may vary over time.

Premium Tax: A tax some states charge on annuities. The insurer may subtract the amount of the tax when you pay your premium, when you withdraw your contract value, when you start to receive income payments, or when it pays a death benefit to your beneficiary.

Note: this is not a complete list.

Annuitization – Getting Paid

<https://www.thrivent.com/insights/annuities/annuitization-explained-pros-cons-and-the-10-year-rule>

- Annuitization starts the payout phase
 - It is the process of converting an annuity investment into a series of periodic payments.
 - It is *typically* irreversible.
 - You *usually* no longer have control or access of the money.
 - Once an annuity enters the payout phase, the cash value of the annuity generally no longer increase.
- Some payout options
 - Life – payment last until death
 - Joint Life – payment last until both spouses die
 - Life with Cash Refund – beneficiaries receive a lump sum of premium minus all payouts
 - Period Certain – payout will last a fixed period (such as 10 or 20 years). If you die before the period ends, payments continue for the rest of the period to beneficiaries.
 - Life with Period Certain – payout will last a lifetime. If you die before the period ends, payments continue for the rest of the period to beneficiaries.
- Factors impacting the payout amount
 - Age and gender (based on actuarial science)
 - Contract value (investment performance)
 - Distribution rate in the contract
 - Income rider guaranteed base & withdrawal rate
 - COLA rider (if you can find one)

Example (date unknown)	Age		
	65	70	75
Payout Option			
Life (female)	\$ 475	\$ 531	\$ 636
Joint Life*	\$ 430	\$ 480	\$ 564
Life w/ Cash Refund	\$ 435	\$ 480	\$ 535
Period Certain (20y)	\$ 520	\$ 520	\$ 520
Life w/ Period Certain (20y)	\$ 435	\$ 470	\$ 504

**assumes spouse is 3 years older*

Income Rider for Indexed or Variable Annuity

<https://www.investopedia.com/terms/g/glwb.asp>

- Variable and indexed annuities own or link to underlying investments, which come with risk.
 - Income rider sets a guaranteed minimum payout even if your investment goes to zero.
 - It is an insurance against prolonged bear market and/or “sequence of returns” risk
 - There are many variants of income riders, like GLWB, GMIB, etc. We will cover GLWB here.
- Guaranteed Lifetime Withdrawal Benefit (GLWB) works by tracking two separate numbers:
 - Contract value, the value of underlying investment portfolio (under your control)
 - Benefit base, contract premium raised by a compound Roll-Up Rate for a fixed period
- When annuitize, payout is determined by applying the guaranteed payout rate (distribution rate) to the larger of the two numbers.
- GLWB riders may also allow you to make additional withdrawals from your cash value, even after annuitization. However, doing so usually results in the reduction of your benefit base.
- *Observations*
 - GLWB provides guaranteed minimum income regardless of how the market performs
 - It encourages you to take more risk and invest aggressively
 - Insurance company must charge enough to hedge against bad markets and/or bad investors
 - Generally, the longer your investing horizon the less useful income rider may be
 - A relatively long runway gives you the ability to endure near-term market volatility
 - For short accumulation period, a GLWB rider could be one way to optimize risk-adjusted returns

Why Purchase an Annuity?

Some reasons

- Pension-like lifetime guaranteed income stream
- Tax-deferred saving (but no LT capital gain tax rate or step-up cost basis)
- Principal protection (FIA) and/or guaranteed minimum payout (GLWB)
- Riders (Long Term Care, etc.)

Due diligence work

- Insurance company rating (go with TBTF)
- Surrender charges (commissions)
- Annual charges and free withdraw limits
- Investment options (for variable annuity)
- Features for legacy (Death benefit, stretch provision, etc.)
- Beware of [annuity fraud and annuity agent scams](#)

Annuities are long-term products. They are not for short-term investing.

What is Fixed Annuity?

<https://youtu.be/pZMAOeFu3K0?si=UBiis6C3enWP2La8>

<https://www.blueprintincome.com/fixed-annuities>

A fixed annuity can be

- Immediate, which starts the payout immediately
- Deferred, which enters the accumulation phase first and then the payout phase at some point later that is determined by the annuity contract.
 - ❑ During the accumulation phase, fixed annuities pay a guaranteed rate of interest on the premium (a lump sum payment or a series of payments)
 - ❑ The guaranteed rate is fixed for some period. After a rate period ends, another fixed rate will be set.
 - ❑ There is a guaranteed minimum rate for the life of the policy.

Payout amount is usually driven by

- Amount of total premiums
- Age, gender, and other attributes relating to longevity
- Current and projected future interest rates

Examples of Fixed Annuity:

- Single Payment Immediate Annuity (SPIA)
 - ❑ Exchange a pile of money for a constant stream of income right away (or in a few months)
- Multi-Year Guaranteed Annuity ([MYGA](#))
 - ❑ Deferred fixed annuity. Long-term, CD-like investment during the accumulation phase.

Example – SIPA from Schwab

<https://www.schwab.com/annuities/fixed-income-annuity-calculator>

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Your Information

Annuity Type	Single Premium Immediate Annuity	
Single/Joint Life Annuitants	Joint Life	Joint Annuitant
Primary Annuitant	Male, born August 18, 1958	Female, born October 28, 1958
State	California	
Income Start Date	August 18, 2025	One-year defer
Investment Amount	\$100,000	

Summary of Results ⓘ

Monthly Income	Minimum Payout ⓘ	Income Annuity Options
\$559	\$0	Joint Life Only. You will receive this income during the lifetimes of both annuitants. Annuity payments continue until the death of the last annuitant. However, your beneficiaries do not receive a death benefit once you pass away.
\$559	\$67,080	Joint Life with 10 year certain. You will receive this income during the lifetimes of both annuitants. If one annuitant passes away you will continue to receive income until the death of the other annuitant. If both annuitants pass away within the first ten years your beneficiaries will receive the remaining income payments until the end of the ten year period (a lump sum death benefit may be available).
\$545	\$130,800	Joint Life with 20 year certain. You will receive this income during the lifetimes of both annuitants. If one annuitant passes away you will continue to receive income until the death of the other annuitant. If both annuitants pass away within the first 20 years your beneficiaries will receive the remaining income payments until the end of the 20 year period (a lump sum death benefit may be available).
\$556	\$100,000	Joint Life with cash refund. You will receive this income during the lifetimes of both annuitants. If one annuitant passes away you will continue to receive income until the death of the other annuitant. If both annuitants pass away your beneficiaries will receive a lump-sum payment of the original investment less income payments made to date. (~ 15 years)

Information about your results

Based on the questions you answered, the summary of results displays options for a fixed income annuity.

The assumptions that we made on your behalf are:

- Single premium immediate annuity and deferred income annuity results are based on the highest payout or lowest required investment amount from six competitive single premium immediate annuities or two deferred income annuities, respectively, available to you through Schwab.
- The Estimator can display results in 2 ways: 1) a monthly payment that will continue for the period of time that you choose (lifetime, or a set period of time) or 2) an investment amount which is required to provide your desired income payment each month.
- If you requested an annuity for two lives, a monthly payment to the surviving annuitant is displayed. This is the payment amount that will continue to your annuitant once you pass away. Reducing the amount your annuitant would receive will increase the amount of payments you receive while you both are alive. This Estimator assumes the surviving annuitant receives 100% of the payout.
- The minimum payout is the amount of income that you, or you and your beneficiaries, will receive at a minimum. By purchasing an income annuity with a guarantee period or cash refund option, you can ensure that your total payments will be equal to the minimum payout amount regardless of how long you live.
- Death benefit considerations will vary based on the type of annuity income option and the amount of payment to the surviving annuitant. The various types of death benefit payments for beneficiary(ies) are described in the Summary of Results under the Income Annuity Options.

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Example - Fidelity

<https://digital.fidelity.com/prgw/digital/gic/>

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Lifetime benefit	Monthly income	Minimum payout	Description
<input checked="" type="radio"/> Cash refund	\$549 \$556 Schwab	\$100,000	Guaranteed income for you and your spouse's life. Your beneficiaries would receive a lump-sum payout of your initial investment less any payments received. See less Considerations: <ul style="list-style-type: none"> Your initial investment is guaranteed to be returned to you or your beneficiaries which may result in a lower monthly income amount compared to other options. For a guarantee period, beneficiaries would inherit any remaining monthly income payments.
<input type="radio"/> 10 years guaranteed	\$554 \$559 Schwab	\$66,480	Guaranteed income for you and your spouse's life. If you both pass away before 10 years, your beneficiaries will receive payments for the remaining period. See less Considerations: <ul style="list-style-type: none"> A shorter guarantee period may increase your monthly income but provides less protection for your beneficiaries. Provides a minimum of 120 monthly payments to you, your spouse, or your beneficiaries.
<input type="radio"/> 20 years guaranteed	\$545 \$545 Schwab	\$130,800	Guaranteed income for you and your spouse's life. If you both pass away before 20 years, your beneficiaries will receive payments for the remaining period. See less Considerations: <ul style="list-style-type: none"> A longer guarantee period may decrease your monthly income but provide more protection for your beneficiaries. Provides a minimum of 240 monthly payments to you, your spouse, or your beneficiaries.
<input type="radio"/> Fixed Guaranteed Lifetime Withdrawal Benefit (GLWB)	\$496	\$100,000	Guaranteed income by means of a lifetime withdrawal benefit. Each full year you choose to defer your income, your guaranteed income amount will grow based on a predetermined percentage called a Deferral Credit . See less Considerations: <ul style="list-style-type: none"> How much you receive depends on several factors, including your age at purchase, the type of policy you buy (single or joint life), and how long you wait to activate your income.¹ You have the flexibility to begin withdrawing now or in the future.² Your beneficiaries receive any remaining account value.

How is this calculated?

The amounts displayed in this tool reflect the highest monthly income payments available or lowest investment amounts (if solving for a desired monthly income payment) from fixed annuities issued by insurance companies within The Fidelity Insurance Network[®]. Other types of annuities not reflected in this tool are available through Fidelity that you should consider before making an investment decision.

Our [methodology](#)

Calculating an income annuity payment (rounded to the nearest whole dollar) is based on a variety of factors:

- Current interest rates at the time of purchase
- Life expectancy of the single or joint lives
- Gender of the annuitant(s)
- Administrative costs
- Income start date
- Funding source
- Annual increase option, if applicable

Note: The income amounts can vary over time by insurance provider and are shown as pre-tax amounts.

Our [assumptions](#)

In order to simplify this estimator, we have made some additional assumptions on your behalf in order to calculate the results, including:

- The owner(s) are also the annuitant(s)
- Payments will be made monthly
- The annuity purchase date is 7 days from today
- If no income start date is selected, your first income payment will be 1 month from the purchase date

Example - Fidelity

<https://digital.fidelity.com/prgw/digital/gic/>

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Estimate type
 How much I want to invest
 How much I want to get each month

Amount

\$10,000 minimum

Income start date (optional)

Between 30 days and 40 years from today

Funding source
 Qualified Nonqualified
How does the annual increase work?

Increase 2% a year

Add spouse

Date of birth

Gender
 Male Female

← Not COLA

“Retirement income calculations should be conducted in real (after inflation) terms”

Lifetime benefit	Monthly income	Minimum payout ?	Description
<input checked="" type="radio"/> Cash refund	\$442 <i>\$556 w/o 2%</i>	\$100,000	Guaranteed income for you and your spouse's life. Your beneficiaries would receive a lump-sum payout of your initial investment less any payments received. See more
<input type="radio"/> 10 years guaranteed	\$445 <i>\$554 w/o 2%</i>	\$58,472	Guaranteed income for you and your spouse's life. If you both pass away before 10 years, your beneficiaries will receive payments for the remaining period. See more
<input type="radio"/> 20 years guaranteed	\$437 <i>\$545 w/o 2%</i>	\$127,415	Guaranteed income for you and your spouse's life. If you both pass away before 20 years, your beneficiaries will receive payments for the remaining period. See more

Social Security Benefits

https://www.ssa.gov/policy/docs/quickfacts/stat_snapshot/

Pro

- Backed by the US government 🙌
- Death Benefit for spouse and young children
- COLA (2023 8.7%, 2024 3.2%, 2025 2.5%)
- Bonus for late annuitization (claim benefit)
- No fee and charges
- Payout taxed partially on federal return by income
- Not taxed in most states (e.g. CA, OR, WA)
- Ex-spouse may be benefited (pro or con 😊)

Con

- System is projected to run out of money by 2035 😞
- No surrender or withdraw allowed
- Fixed beneficiaries

Social Security's 65 million beneficiaries taking home an average monthly benefit of **\$1,782** (est.). Based on Fidelity's quote of \$442/month for \$100,000 premium (with fixed 2% annual benefit increase), average Social Security benefit is better than a \$400,000 immediate income annuity.

By comparison, social security is the best deferred annuity policy. But it can only be earned.

What is a Fixed-Indexed Annuity (FIA)?

Most fixed indexed annuities are deferred

Money in a fixed indexed annuity earns interest based on changes in an index during a set period (called the **index term**)

- Some indexes are measures of how the overall financial markets perform (such as the S&P 500 Index).
- Others measure how a specific financial market performs during the term.
- If the change is positive, interest is added to the annuity. Otherwise, no interest (0%) is added.
- Principal is safe, never go down.

Key rates used in interest crediting scheme

- Participation Rate – percentage of the calculated index return
- Cap Rate – maximum interest rate that can be applied
- Spread Rate – A set percentage deducted from the interest rate you would otherwise be credited

Example formulas for calculating the index return

- Monthly or Daily Averaging: The average of one day of every month, or every day the market is open for the duration of index term is compared with the index value at the start of the index term.
- Monthly Point-to-Point: Change in index calculated for each month during the index term. Each monthly change is limited to the “cap rate” for positive changes, but not when the change is negative. At the end of the index term, all monthly changes (positive and negative) are added. Example slide below.
- Annual Point-to-Point: Change in index calculated using two dates one year apart.
- Multi-Year Point-to-Point: Change in index calculated using two dates more than one year apart.

Indexing Example

<https://youtu.be/IqIr9n-YEAW?si=asVWVp7DyS0q5F9R> (50:56)

allocation Percentage	Strategy	Current Participation Rate	Current Cap	Declared Rate
0%	S&P 500 [®] One-Year Point-to-Point With Cap	100%	2.90%	NA
0%	S&P 500 [®] One-Year Point-to-Point With Cap (with fee)* ↓	100%	4.90% ↑	NA
0%	S&P 500 [®] Two-Year Point-to-Point With Participation Rate and Cap	15%	NA	NA
0%	S&P 500 [®] Two-Year Point-to-Point With Participation Rate and Cap (with fee)** ↓	30%	NA ↑	NA
0%	Russell 2000 [®] One-Year Point-to-Point With Cap	100%	1.15%	NA
0%	Russell 2000 [®] One-Year Point-to-Point With Cap (with fee)*	100%	3.10%	NA
0%	BNPP Momentum 5 ⁺ One-Year Point-to-Point With Participation Rate	50%	NA	NA
25%	BNPP Momentum 5 ⁺ One-Year Point-to-Point With Participation Rate (with fee)*	85%	NA	NA
0%	BNPP Momentum 5 ⁺ Two-Year Point-to-Point With Participation Rate	65%	NA	NA
25%	BNPP Momentum 5 ⁺ Two-Year Point-to-Point With Participation Rate (with fee)**	105%	NA	NA
0%	US Innovative Leaders 5 Index One-Year Point-to-Point With Participation Rate	50%	NA	NA
25%	US Innovative Leaders 5 Index One-Year Point-to-Point With Participation Rate (with fee)*	85%	NA	NA
0%	US Innovative Leaders 5 Index Two-Year Point-to-Point With Participation Rate	70%	NA	NA
25%	US Innovative Leaders 5 Index Two-Year Point-to-Point With Participation Rate (with fee)**	110%	NA	NA
0%	Fixed Account	NA	NA	1.00%

The rates illustrated are current as of the date illustrated, and subject to change.

* 1% fee is deducted once at the beginning of each 1-year index period.

** 2% fee is deducted once at the beginning of each 2-year index period.

+ Also known as the BNP Paribas Momentum Multi-Asset 5 Index.

Sample of actual index and crediting options for a particular indexed annuity (YouTube link under the slide title).

One can select a combination of index in this example.

familiar
exotic

BNPP = Banque Nationale de Paris and Paribas (Bank of Paris and the Netherlands)

US Innovative Leaders 5 Index is from BNPP

US INNOVATIVE LEADERS 5 INDEX

The charts and tables below show an analysis of the back-tested levels of the US Innovative Leaders 5 Index. The US Innovative Leaders 5 Index was launched on 28 January 2020. The prior performance shown is simulated.

INDEX STATISTICS

	Global	Last 1 Year	Last 3 Years	Last 5 Years	Last 10 Years
Return	5.4%	-0.2%	4.7%	5.4%	5.3%
Volatility	5.1%	5.2%	5.1%	5.2%	5.2%
Return/Risk	1.1	-	0.9	1.0	1.0

INDEX OVERVIEW

Bloomberg ticker	BNPIUL5 Index
Calculation Agent	BNP Paribas Arbitrage SNC
Index Sponsor	BNP Paribas
Index Type	Excess Return
Index Launch Date	January 28 th 2020
Index Start Date	May 25-2004

Source: Bloomberg. BNP Paribas from 25 May 2004 to 31 January 2022. All numbers and figures are annualized.

Participation, Cap, and Spread Rate - Example

<https://youtu.be/IqIr9n-YEAw?si=asVWVp7DyS0q5F9R>

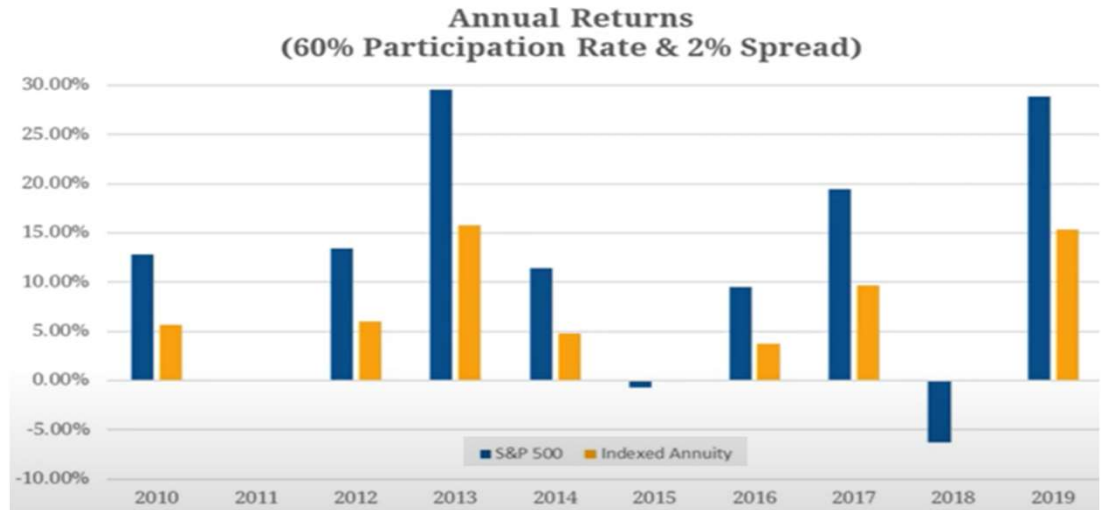
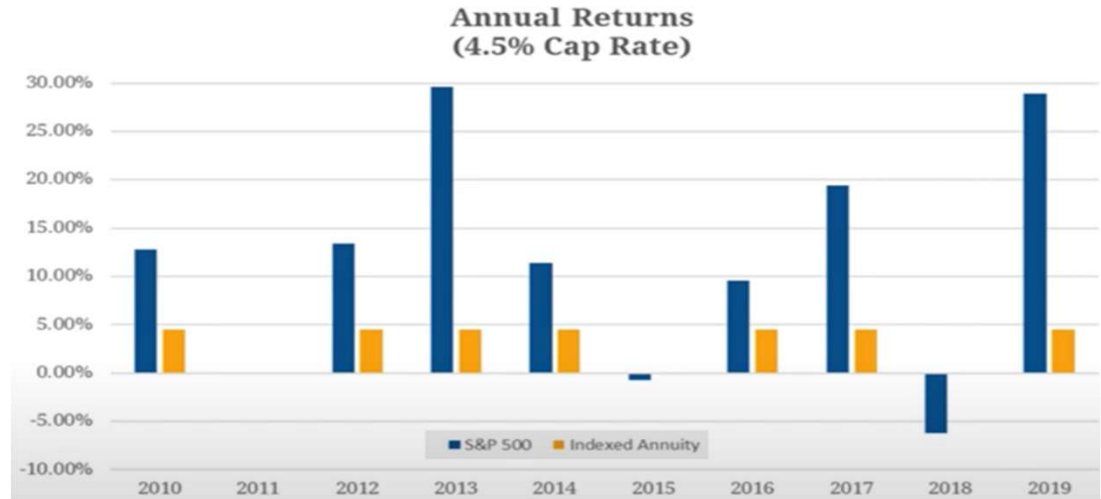
Option A

- \$100,000 purchase
- 10-year contract
- Indexed to S&P 500 price change each calendar year
- **100% Participation Rate, up to 4.5% Cap Rate**
- **No Spread**
- Interest credited annually

Option B

- \$100,000 purchase
- 10-year contract
- Indexed to S&P 500 price change each calendar year
- **60% Participation Rate, minus 2% Spread**
- **No Cap Rate**
- Interest credited annually

Which option ?



Monthly Point-to-Point Scenario – Horror Story

<https://youtu.be/IqIr9n-YEaw?si=asVWVp7DyS0q5F9R>

From 02/04/2020 to 02/04/2021, the S&P 500 price return was **+17.41%**

Over that annual interest crediting period, the annuity was credited with zero interest

This is because of the way in which this contract credits interest; it sums up monthly returns, but where each month's return is capped at +1.25%

Contract Month	Beginning Index Value	Ending Index Value	Monthly Index Return	Capped Monthly Return
02/04/20	3,297.59	3,130.12	-5.08%	-5.08%
03/04/20	3,130.12	2,488.65	-20.49%	-20.49%
04/03/20	2,488.65	2,842.74	14.23%	1.25%
05/04/20	2,842.74	3,112.35	9.48%	1.25%
06/04/20	3,112.35	3,130.01	0.57%	0.57%
07/02/20	3,130.01	3,306.51	5.64%	1.25%
08/04/20	3,306.51	3,426.96	3.64%	1.25%
09/04/20	3,426.96	3,348.44	-2.29%	-2.29%
10/02/20	3,348.44	3,443.44	2.84%	1.25%
11/04/20	3,443.44	3,699.12	7.43%	1.25%
12/04/20	3,699.12	3,700.65	0.04%	0.04%
01/04/21	3,700.65	3,871.74	4.62%	1.25%
Actual Monthly Sum Interest Rate Credited				0.00%

From 02/04/2021 to 02/04/2022, the S&P 500 price return was **+16.24%**

Over that annual interest crediting period, the annuity was credited with zero interest

This is because of the way in which this contract credits interest; it sums up monthly returns, but where each month's return is capped at +1.50%

Contract Month	Beginning Index Value	Ending Index Value	Monthly Index Return	Capped Monthly Return
02/04/21	3,871.74	3,768.47	-2.67%	-2.67%
03/04/21	3,768.47	4,019.87	6.67%	1.50%
04/01/21	4,019.87	4,164.66	3.60%	1.50%
05/04/21	4,164.66	4,229.89	1.57%	1.50%
06/04/21	4,229.89	4,352.34	2.89%	1.50%
07/02/21	4,352.34	4,402.66	1.16%	1.16%
08/04/21	4,402.66	4,535.43	3.02%	1.50%
09/03/21	4,535.43	4,300.46	-5.18%	-5.18%
10/04/21	4,300.46	4,680.06	8.83%	1.50%
11/04/21	4,680.06	4,538.43	-3.03%	-3.03%
12/03/21	4,538.43	4,793.54	5.62%	1.50%
01/04/22	4,793.54	4,500.53	-6.11%	-6.11%
Actual Monthly Sum Interest Rate Credited				0.00%

Simple Example – Basic Fixed Indexed Annuity

<https://youtu.be/IqIr9n-YEaw?si=asVWVp7DvS0q5F9R>

<u>Initial Contract Purchase</u>				\$100,000				
Participation				100.00%				
Cap				2.85%				
Spread				Gain/loss	0.00%			
Fee				compounded	0.00%			
				↓				
	Age	Year	SP500 Return	SP500 Multiple	Interest (%)	Interest (\$)	Fee (\$)	Contract Value
2011	52	0	0.00%					100,000
2012	53	1	13.41%	1.13	2.85%	2,850	0	102,850
2013	54	2	29.60%	1.47	2.85%	2,931	0	105,781
2014	55	3	11.39%	1.64	2.85%	3,015	0	108,796
2015	56	4	-0.73%	1.63	0.00%	0	0	108,796
2016	57	5	9.54%	1.78	2.85%	3,101	0	111,897
2017	58	6	19.42%	2.13	2.85%	3,189	0	115,086
2018	59	7	-6.24%	1.99	0.00%	0	0	115,086
2019	60	8	28.88%	2.57	2.85%	3,280	0	118,366
2020	61	9	16.26%	2.99	2.85%	3,373	0	121,739
2021	62	10	26.89%	3.79	2.85%	3,470	0	125,209
Annualized Return				14.25%				2.27%

This example is from 2021, you should expect higher Cap rate nowadays.

Simple Example – Fixed Indexed Annuity with GLWB Rider

Guaranteed Lifetime Withdrawal Benefit (GLWB): Definition and How It Works (investopedia.com)

Initial Contract Purchase									GLWB						
\$100,000															
Participation 100.00%									Bonus \$0						
Cap 2.85%									Initial Benefit Base \$100,000						
Spread 0.00%									Roll-up Rate 7.00%						
Fee 0.00%									Rider fee 1.05%						
Age	Year	SP500 Return	SP500 Multiple	Interest (%)	Interest (\$)	Fee (\$)	Rider Fee (\$)	Contract Value	Benefit Base	Withdraw Rate	Guaranteed Annual Withdrawal	Annual Income	Cumulative Income	Milestones	
52	0							100,000	\$100,000			\$0	\$0		
53	1	13.41%	1.13	2.85%	2,850	0	(1,050)	101,800	\$107,000	3.80%	\$4,066	\$0	\$0		
54	2	29.60%	1.47	2.85%	2,901	0	(1,069)	103,632	\$114,490	3.90%	\$4,465	\$0	\$0		
55	3	11.39%	1.64	2.85%	2,954	0	(1,088)	105,498	\$122,504	4.00%	\$4,900	\$0	\$0		
56	4	-0.73%	1.63	0.00%	0	0	(1,108)	104,390	\$131,080	4.10%	\$5,374	\$0	\$0		
57	5	9.54%	1.78	2.85%	2,975	0	(1,096)	106,269	\$140,255	4.20%	\$5,891	\$0	\$0		
58	6	19.42%	2.13	2.85%	3,029	0	(1,116)	108,182	\$150,073	4.30%	\$6,453	\$0	\$0		
59	7	-6.24%	1.99	0.00%	0	0	(1,136)	107,046	\$160,578	4.40%	\$7,065	\$0	\$0		
60	8	28.88%	2.57	2.85%	3,051	0	(1,124)	108,973	\$171,819	4.60%	\$7,904	\$0	\$0		
61	9	16.26%	2.99	2.85%	3,106	0	(1,144)	110,934	\$183,846	4.70%	\$8,641	\$0	\$0		
62	10	26.89%	3.79	2.85%	3,162	0	(1,165)	112,931	1.22%	\$196,715	4.85%	\$9,541	\$0	\$0	Annuitize, GLWB base > contract value
63	11							103,390				\$9,541	\$9,541		
64	12							93,850				\$9,541	\$19,081		
65	13							84,309				\$9,541	\$28,622		
66	14							74,768				\$9,541	\$38,163		
67	15							65,228				\$9,541	\$47,703		
68	16							55,687				\$9,541	\$57,244		
69	17							46,146				\$9,541	\$66,785		
70	18							36,606				\$9,541	\$76,325		
71	19							27,065				\$9,541	\$85,866		
72	20							17,524				\$9,541	\$95,407		
73	21							7,984				\$9,541	\$104,948		
74	22											\$9,541	\$114,488	Exhausted Contract Value	
75	23											\$9,541	\$124,029	0.94%	
76	24											\$9,541	\$133,570		
77	25											\$9,541	\$143,110		
78	26											\$9,541	\$152,651		
79	27											\$9,541	\$162,192		
80	28											\$9,541	\$171,732	1.95%	

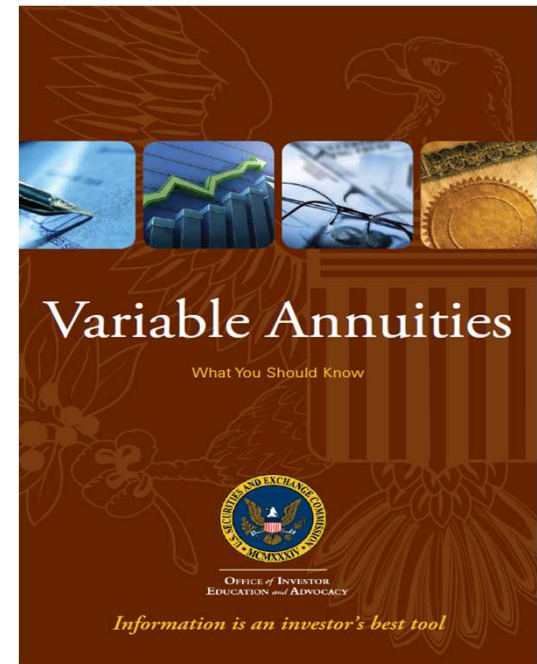
What is a Variable Annuity (VA)?

<https://www.sec.gov/investor/pubs/sec-guide-to-variable-annuities.pdf>

- A variable annuity is an annuity where you invest your money in a combination of mutual funds.
 - Each fund in a variable annuity is called a **subaccount**. Each with different levels of risk/return.
 - You invest in these subaccounts during the accumulation phase
 - If the subaccounts' values go down, you may end up with less money in your annuity than you paid into it.
 - You get regular income during payout phase (no tax benefit)
 - Income rider like GLWB can be used to reduce market risk

- Death Benefit is usually the greater of
 - Contract value (total of subaccounts minus charges)
 - The amount you put in minus the amount withdrawn already.
 - Death benefit rider that guaranteed a minimum amount

- Fees and charges
 - Mortality & Expense (M&E) charge
 - Administration fees (typically flat or around 0.15%)
 - Subaccount expenses
 - Rider charges

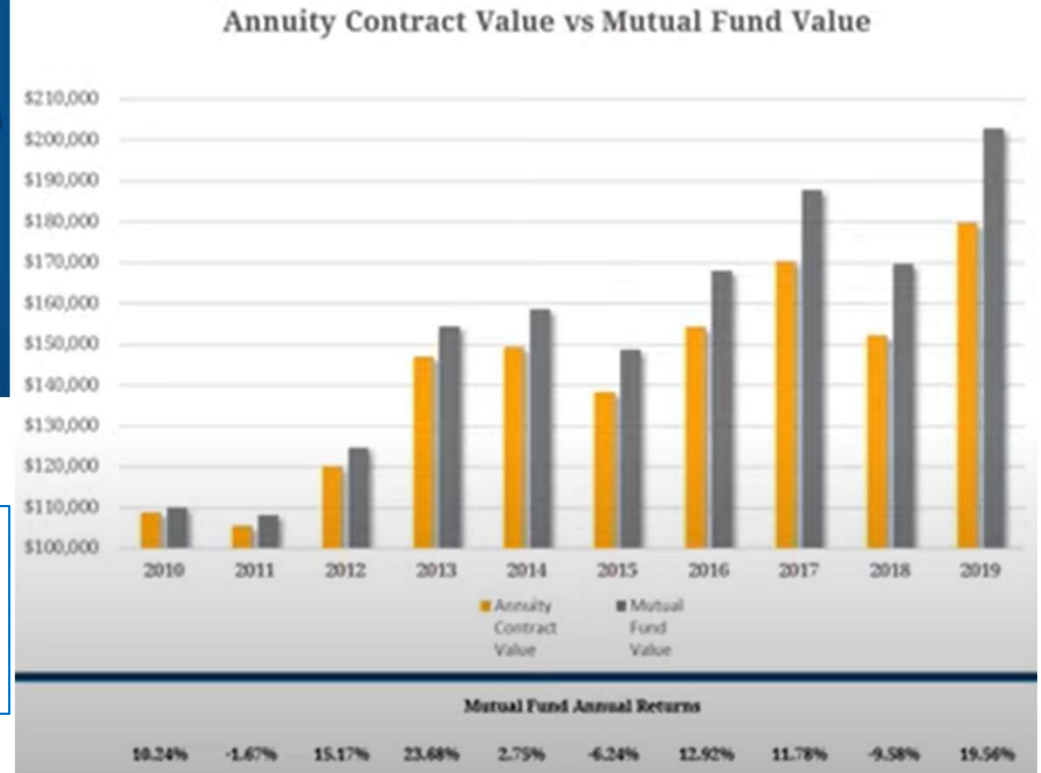


Impact of Fees and Charges on Investment Returns

<https://youtu.be/bGriDkAkzTo?si=47zirziSaE1aZCGB>

- \$100,000 purchase
- 5-year contract
- Invest in a “balanced” mutual fund...60% stocks and 40% bonds
 - 0.92% expense ratio
- Fees:
 - 0.25% Administrative Fee
 - 0.95% Mortality & Expense Fee
 - \$50 Annual Fee...*waived since contract is larger than \$50,000*

The extra 1.2% annual fees add up.
After 10 years, contract value is 10% less than if there was no fees.



Bottom-line: If you're **just looking to invest** WITHOUT the life insurance component or annuitization option, a variable annuity is a **BAD DECISION**

But there may be exception ...

Simple Example – Basic Variable Annuity (Bull Market)

<https://www.youtube.com/watch?v=K8g84LKiqig>

			Year	Age	SP500 Return 1990-2000	Before Expenses	M&E & SA Fees	Contract Value (100/0)	Surrender Charge	Surrender Value	Income per year	Total Income Received	Net Total Income	Compound Annual Growth	Death Benefit	Milestones
Assumptions			1	65	-6.56%	\$93,441	\$1,766.03	\$91,675	8.50%	\$83,882			(\$100,000)	-16.12%	\$91,675	
Initial Investment	\$100,000		2	66	26.31%	\$118,022	\$2,230.62	\$115,791	7.50%	\$107,107			(\$100,000)	3.49%	\$115,791	
Distribution Rate	5.50%		3	67	4.46%	\$123,291	\$2,330.20	\$120,961	6.50%	\$113,098			(\$100,000)	4.19%	\$120,961	
			4	68	7.06%	\$131,989	\$2,494.60	\$129,495	5.50%	\$122,372			(\$100,000)	5.18%	\$129,495	
			5	69	-1.54%	\$129,958	\$2,456.20	\$127,501	5.00%	\$121,126			(\$100,000)	3.91%	\$127,501	
Portfolio Allocation	Expense		6	70	34.11%	\$174,287	\$3,294.02	\$170,993	4.00%	\$164,153			(\$100,000)	8.61%	\$170,993	
Stocks	100%	0.59%	7	71	20.26%	\$209,604	\$3,961.51	\$205,642	2.00%	\$201,529			(\$100,000)	10.53%	\$205,642	
Bond	0%	0.69%	8	72	31.01%	\$274,598	\$5,189.91	\$269,408		\$269,408			(\$100,000)	13.19%	\$269,408	
			9	73	26.67%	\$347,830	\$6,573.98	\$341,256		\$341,256			(\$100,000)	14.61%	\$341,256	
Expenses			10	74	19.53%	\$415,750	\$7,857.67	\$407,892		\$407,892			(\$100,000)	15.09%	\$407,892	
M&E	1.30%		11	75	-10.14%	\$373,594	\$7,060.92	\$366,533		\$366,533			(\$100,000)	12.53%	\$366,533	
Subaccount	0.59%		12	76							\$20,159	\$20,159	(\$79,841)	-12.49%	\$346,373	Annuitize
Death Benefit	0%		13	77							\$20,159	\$40,319	(\$59,681)	-6.75%	\$326,214	
Total Fees	1.89%		14	78							\$20,159	\$60,478	(\$39,522)	-3.53%	\$306,055	
			15	79							\$20,159	\$80,637	(\$19,363)	-1.42%	\$285,896	
			16	80							\$20,159	\$100,797	\$797	0.05%	\$265,736	Breakeven
			17	81							\$20,159	\$120,956	\$20,956	1.13%	\$245,577	
			18	82							\$20,159	\$141,115	\$41,115	1.93%	\$225,418	
			19	83							\$20,159	\$161,274	\$61,274	2.55%	\$205,258	
			20	84							\$20,159	\$181,434	\$81,434	3.02%	\$185,099	
			21	85							\$20,159	\$201,593	\$101,593	3.39%	\$164,940	
			22	86							\$20,159	\$221,752	\$121,752	3.69%	\$144,780	
			23	87							\$20,159	\$241,912	\$141,912	3.92%	\$124,621	
			24	88							\$20,159	\$262,071	\$162,071	4.10%	\$104,462	
			25	89							\$20,159	\$282,230	\$182,230	4.24%	\$84,303	
			26	90							\$20,159	\$302,390	\$202,390	4.35%	\$64,143	
			27	91							\$20,159	\$322,549	\$222,549	4.43%	\$43,984	
			28	92							\$20,159	\$342,708	\$242,708	4.50%	\$23,825	
			29	93							\$20,159	\$362,867	\$262,867	4.54%	\$3,665	
			30	94							\$20,159	\$383,027	\$283,027	4.58%		Exhausted Contract Value
			31	95							\$20,159	\$403,186	\$303,186	4.60%		

Simple Example – Variable Annuity with GMWB Rider

<https://www.youtube.com/watch?v=K8g84LKiQig>

			Year	Age	SP500 Return 1999-2009	Before Expenses	M&E & SA Fees	GMWB Fees	Total Fees	Contract Value (100/0)	Surrender Charge	Surrender Value	GMWB Step Up	GMWB Base	Income per year	Total Income Received	Net Total Income	Compound Annual Growth	Death Benefit	Milestones
Assumptions			1	65	19.53%	\$119,527	\$2,259.06	\$1,792.90	\$4,051.96	\$115,475	8.50%	\$105,660	\$107,000	\$115,475			(\$100,000)	5.66%	\$115,475	
Initial Investment			2	66	-10.14%	\$107,407	\$2,029.99	\$1,611.11	\$3,641.10	\$103,766	7.50%	\$95,984	\$123,558	\$123,558			(\$100,000)	-2.03%	\$103,766	
Distribution Rate			3	67	-13.04%	\$93,398	\$1,765.23	\$1,400.97	\$3,166.20	\$90,232	6.50%	\$84,367	\$132,207	\$132,207			(\$100,000)	-5.51%	\$90,232	
			4	68	-23.37%	\$71,575	\$1,352.77	\$1,073.62	\$2,426.39	\$69,149	5.50%	\$65,345	\$141,462	\$141,462			(\$100,000)	-10.09%	\$69,149	
			5	69	26.38%	\$90,457	\$1,709.63	\$1,356.85	\$3,066.48	\$87,390	5.00%	\$83,021	\$151,364	\$151,364			(\$100,000)	-3.65%	\$87,390	
Portfolio Allocation		Expense	6	70	8.99%	\$98,592	\$1,863.38	\$1,478.88	\$3,342.26	\$95,250	4.00%	\$91,440	\$161,960	\$161,960			(\$100,000)	-1.48%	\$95,250	
Stocks	100%	0.59%	7	71	3.00%	\$101,551	\$1,919.31	\$1,523.26	\$3,442.56	\$98,108	2.00%	\$96,146	\$173,297	\$173,297			(\$100,000)	-0.56%	\$98,108	
Bond	0%	0.69%	8	72	13.62%	\$115,381	\$2,180.70	\$1,730.72	\$3,911.42	\$111,470		\$111,470	\$185,427	\$185,427			(\$100,000)	1.37%	\$111,470	
			9	73	3.53%	\$119,454	\$2,257.67	\$1,791.80	\$4,049.48	\$115,404		\$115,404	\$198,407	\$198,407			(\$100,000)	1.60%	\$115,404	
Expenses			10	74	-38.49%	\$73,481	\$1,388.79	\$1,102.21	\$2,491.00	\$70,990		\$70,990	\$212,296	\$212,296			(\$100,000)	-3.37%	\$70,990	
M&E	1.30%		11	75	23.45%	\$90,715	\$1,714.52	\$1,360.73	\$3,075.25	\$87,640		\$87,640	\$227,157	\$227,157			(\$100,000)	-1.19%	\$87,640	
Subaccount	0.59%		12	76											\$12,494	\$12,494	(\$87,506)	-15.91%	\$75,146	Annuitize
Death Benefit	0%		13	77											\$12,494	\$24,987	(\$75,013)	-10.12%	\$62,653	
Total Fees	1.89%		14	78											\$12,494	\$37,481	(\$62,519)	-6.77%	\$50,159	
GMWB parameters			15	79											\$12,494	\$49,974	(\$50,026)	-4.52%	\$37,666	
Set Up	11 Years		16	80											\$12,494	\$62,468	(\$37,532)	-2.90%	\$25,172	
Income Rider	7.00%		17	81											\$12,494	\$74,962	(\$25,038)	-1.68%	\$12,678	
Multiplier	200%		18	82											\$12,494	\$87,455	(\$12,545)	-0.74%	\$185	
Roll-Up Rate	1.50%		19	83											\$12,494	\$99,949	(\$51)	0.00%		Breakeven
			20	84											\$12,494	\$112,443	\$12,443	0.59%		
			21	85											\$12,494	\$124,936	\$24,936	1.07%		
			22	86											\$12,494	\$137,430	\$37,430	1.46%		
			23	87											\$12,494	\$149,923	\$49,923	1.78%		
			24	88											\$12,494	\$162,417	\$62,417	2.04%		
			25	89											\$12,494	\$174,911	\$74,911	2.26%		
			26	90											\$12,494	\$187,404	\$87,404	2.45%		
			27	91											\$12,494	\$199,898	\$99,898	2.60%		
			28	92											\$12,494	\$212,391	\$112,391	2.73%		
			29	93											\$12,494	\$224,885	\$124,885	2.83%		
			30	94											\$12,494	\$237,379	\$137,379	2.92%		
			31	95											\$12,494	\$249,872	\$149,872	3.00%		

GMWB Base = MAX(Contract Value + GMWB Step Up)

Income per year = GMWB Base * Distribution Rate

Net Total Income = Total Income Received - Initial Investment

Compound Annual Growth = CAGR(Total Income Received + Surrender Value)

Death Benefit = Contract Value - Total Income Received

Low Cost Deferred Variable Annuity

The phrase “low-cost annuity” is often an oxymoron 😊

The relatively high fees of variable annuity often handicap your investment returns.

Fidelity offers a low-fee variable annuity called Fidelity Personal Retirement Annuity ([FPRA](#)).

Pro

- No Surrender charge or withdraw limit
- Relatively low annual fee: 0.25% (0.1% if > \$1M)
- Tax-deferred, no RMD
- [67 mutual funds](#) for investment options
- [Stretch provision](#) adds tax benefit for beneficiary

Con

- Can only invest in fixed set of mutual funds
- Mutual fund expense ratio could be high
- Frequent trading restrictions
- No optional riders (GLWB, etc.)

FPRA is designed for the accumulation phase.

The contract stipulates annuitization at 90th birthday.

Payout is based on the distribution rate set in the contract.

Discussion on bogleheads.org

Note: This is not an endorsement for FPRA. It is only to share information.

What is a Registered Index-Linked Annuity (RILA)?

<https://www.globalatlantic.com/retirement-annuities/forestructured-growth>

RILA can be described as a cross between a fixed indexed annuity and a variable annuity

- Like FIA, RILA provides the opportunity for growth based in part on the performance of an index
 - Similar account crediting scheme as FIA when index grow
- Like VA, RILA accept some risk of market loss in exchange for higher upside potential than FIA.
- Like VA, RILAs can only be sold by securities licensed financial professionals.
- Unlike VA, neither RILA nor FIA directly participates in any stock or equity investments
 - RILA and FIA are linked to the performance of an index

RILAs are sometimes called buffered (or structured) annuities because they “buffer” assets from a level of (relatively smaller) market loss.

RILAs may offer a floor, instead of a buffer. A floor is a maximum percentage of loss that the contract owner is willing to take. It guards against significantly negative markets.

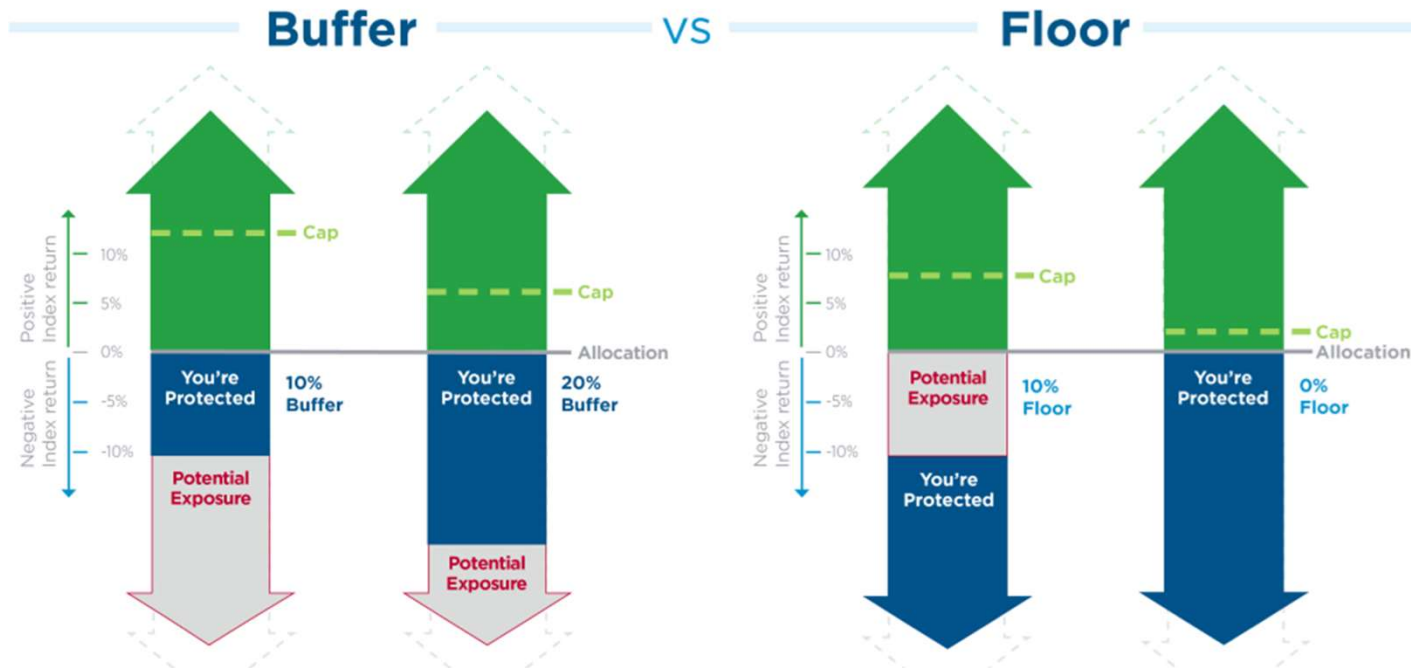
RILAs are typically designed to help you accumulate wealth for retirement or other long-term needs in a risk-balanced manner.

RILA Index Crediting Strategy

<https://www.globalatlantic.com/retirement-annuities/forestructured-growth>

Index crediting strategies can use either a buffer or a floor designed to help reduce the risk of losses should index returns be negative

- A buffer is designed to absorb a set percentage of downside, limiting your loss potential to amounts exceeding the buffer amount.
- A floor is designed to limit your potential losses to a set percentage.
- A cap rate sets the limit on how much the contract value can grow during each term.
- A participation rate is the percentage of the index return that is credited.



What is a Qualified Longevity Annuity Contract (QLAC)?

<https://youtu.be/rG6TeYMEyvk?si=6AxAsLJPYzQo8-VI>

A QLAC is a deferred income annuity, created in 2014 to provide longevity insurance

QLAC Rules and Provisions:

Can only be purchased inside a tax-deferred account

Limits on how much you can buy:

Lesser of:

\$135,000 or

25% of your account balance

Limited payout options:

Single or Joint Life

With or without "Cash Refund"

With or without inflation rider

Payments must start no later than age 85

When to consider a QLAC:

You expect to live long AND you're concerned about running out of money in your later years

You have low tolerance for risk

Leaving a large legacy is NOT one of your main goals

QLAC is used to delay RMD

QLAC Example

<https://youtu.be/rG6TeYMEyvk?si=6AxA5LJPYzQo8-VI>

Without QLAC		With QLAC	
IRA balance	\$500,000	IRA balance	\$500,000
RMD % at 72	~3.9%	- QLAC purchase	\$100,000
		IRA RMD balance	\$400,000
		RMD % at 72	~3.9%
RMD at 72	~\$19,500	RMD at 72	~\$15,600

Summary

- Simplistic use of annuity (K.I.S.S.)
 - Create income stream using **immediate** fixed annuity
 - Building wealth tax-deferred using lowest-overhead **deferred** variable annuity
- Annuities can be complicated
 - What have discussed are only the basics.
 - Insurance companies are constantly creating new variants of annuity policies and features (riders). Beware of unnecessary complexities as every feature increase the cost.
- Be aware of psychological factors that are often used in the sales process
 - Perceived safety can be expensive (fear).
 - If it seems too good to be true, it probably is (greed).
- Read the prospectus to understand the details and weigh need, cost, and benefits.
- For guaranteed income stream
 - Buy from top-rated insurance companies. TBTF is good 😊
 - Review the contract carefully. When in doubt, use the “free look” period to cancel for free.
 - Diversify, do not put a large percentage of retirement fund in one contract.

Q & A
