

Chapter 10: Structuring long-term financial security with fixed, variable, and indexed annuities

10.1. Introduction to Annuities

What are Annuities?

Annuities are long-term insurance contracts that are typically sold by financial services companies and insurance companies. The primary purpose of annuities is to mitigate the risk of outliving savings through the provision of guaranteed periodic income payments to the contract owner during retirement. Unlike investments such as stocks and bonds, annuities are not used primarily for the purpose of accumulating wealth over time. Rather, annuities are used in a manner similar to life insurance products in that they are intended to help individuals transfer risk to a third party (Nguyen et al., 2023; Kimura et al., 2024; Ellis et al., 2025).

Annuities are more effectively utilized as economic lifeboats than as sources of investment income. This role enables annuities to support individuals' retirement concerns without straining the economy's wealth-generating functions. Like life insurance products, the value of annuities is greatest to individuals in the middle or lower sections of the wealth distribution. If too many individuals in this segment of the population do not have access to annuities, personal and collective economic risks will increase through the negative impact on the resources that society will have available to respond to deaths and increases in longevity, including public pension programs (Wallace et al., 2023; Rahman et al., 2024).

10.1.1. Overview of Annuities

This work provides a framework for financial planners to lead clients and their families through the decision-making process of creating a lasting financial legacy. Funding this financial legacy should be a systematic and well-structured process that is achievable by almost all families. At its core, for families near retirement, annuities and simple systemized saving patterns can provide the nest egg for a family's future. This work outlines the types of annuities available in the marketplace, why they should be an integral part of any family's financial legacy plan, and how to use them to provide lifetime financial security and peace of mind.

Annuities have become very popular financial and insurance products over the past three decades. Their increasing appeal is due mainly to new and innovative types of contracts, but also to the shifting of investment risks from business and government onto the shoulders of the workers. The goal of this chapter is to provide both an overview of the development of annuities over the past 100 years and a detailed explanation of how the various types of annuities operate so that the reader can make a qualitative and quantitative evaluation of particular annuity products and their potential roles in providing for long-term personal financial security.

Originating from modest beginnings, life insurance companies now sell a wide variety of financial products to businesses and consumers. What first appeared to be sole-owner, one-dimensional small accounting firms today have evolved into large conglomerates and bank holding companies with diverse activities in banking, investments, and insurance. Whether a small life insurance company or a large bank holding company with a life insurance subsidiary, insurance has become an integral part of the financial services marketplace. Life insurance, annuities, health insurance, and property and casualty insurance now rank as one of the largest financial service industries in the world.

10.2. Understanding Fixed Annuities

While insurance companies have provided annuities since at least the 1600s, regulators did not formally consider their insurance product until the 1950s. Regulators believed that life annuities represented an insurance risk transfer by the original purchaser to the insurance carrier regarding longevity. As a result, state insurance commissioners decided that life contingent single premium annuities should be considered insurance contracts. A fixed annuity is a product that is issued and managed by a financial institution, usually a bank or an insurance company. A fixed annuity is a savings vehicle that provides a guaranteed rate of return over a specified period, either during the accumulation or payout phase. It guarantees interest payments as and when stipulated, and a lump sum payment of accrued interest as and when specified or upon maturity.

A fixed annuity will pay a fixed interest rate over the specified term like investing in a Certificate of Deposit. However, in the last three decades, annuities have maintained a much higher interest rate that has been fixed in contracts, locked in the insured life or lives. They add a bit more insurance and liquidity risk in an annuity versus a CD for the consumer. As a result, under the right conditions concerning pricing and other elements, annuities can serve as a valuable substitute for fixed investments such as CDs or Bonds since they can offer higher rates than traditional fixed investments.

10.2.1. Characteristics of Fixed Annuities

The three major kinds of fixed annuities — traditional fixed, multi-year guaranteed and fixed indexed annuities — are distinguished from each other by when, by how much, and under what circumstances the insurance company reserves the right to change the credited interest rate, and whether there are any caps on the return during the term. An insurance company may also charge for its yearly guarantee with higher caps and lower guarantees. Fixed annuities have two basic durations — share market-like, short and long. Short-term products generally run from 90 days to 3 years and long-term products from 5 years to the rest of the investor’s natural life. Long-term are typically rate-locked for the length of the surrender penalty — 5, 7, and 10 years being typical. Most believe long-term investors take the higher rates because, assuming they do not file a costly last minute of life exit, the benefits to the insurance company for maintaining low interest and surrender penalties through longer contract terms translate into extra higher interest payments to longer-term investors.

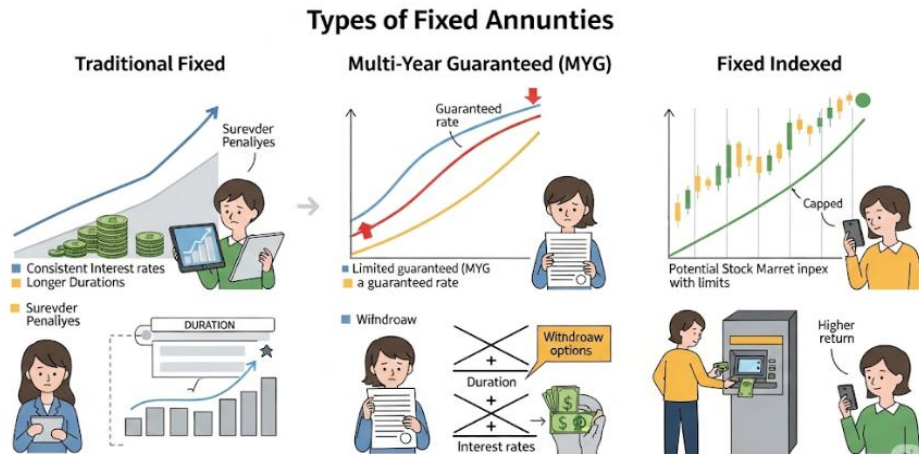


Fig 10 . 1 : Understanding Fixed Annuities

Traditional fixed annuities typically pay higher interest rates and have longer minimum guarantees than MYGs. MYGs simply guarantee a set interest rate for 1, 2, or sometimes

3 years. After that they revert to the insurance company's discretion. Traditional fixed annuities often have lower surrender penalties for early withdrawal and may allow partial without penalty withdrawals. Indexed fixed annuities usually pay lower rates but also have some yardstick attached to the stock market index. If the index meets or beats the yardstick, a higher rate is fed into the annuity for the following contract year and for each year of the penalty period if there is one. If that happens, the investor's interest payments are generally capped, especially for the longer penalty periods. This is presuming the investor does not file for a costly early exit.

10.2.2. Benefits of Fixed Annuities

With increasing longevity and a never-ending decline in the interest rates paid on guaranteed fixed-income instruments, virtually no financial products are available to the general public to use as retirement savings vehicles that are guaranteed to meet the owner's retirement income needs. Fixed annuities, along with further enhancements, are gaining popularity as a simple, uncomplicated, and guaranteed solution to meet the retirement income needs of an increasing number of retirees. Both immediate and deferred annuities are being purchased in increasing numbers and in increasing dollar amounts because of the guarantees they carry, especially when seeking guaranteed lifetime income. Simplicity and flexibility. Fixed and hybrid fixed and indexed annuities are simple and uncomplicated income products that are understood by most people. The single premium purchase of a simple income product in today's electronic, instantaneous processing environment can account for immediate retirement income, and thereafter can be ignored by the retiree. The retiree does not need to worry about making withdrawal, transfer, or exchange decisions about their retirement income assets. No cost or low cost. The purchase of a simple fixed annuity is a one-stop shopping exercise. There are usually no additional charges for any subsequent income payments. Conversely, mutual funds, money market accounts, and all other investment products charge an annual management fee, either expressed as an explicit charge or implicitly through spreads or discounts. These ongoing costs, particularly in low or no gross return environments, have a disproportionate negative effect on consumers. Guaranteed check each month for the rest of your life. Deferred fixed annuity products will provide guaranteed identical payments each month for a specified period of years. Conversely, immediate fixed annuities can provide a retiree with guaranteed income and cash flow each month for the rest of the retiree's life, and for the life of a designated beneficiary.

10.2.3. Drawbacks of Fixed Annuities

In exchange for agreeing to leave your money in a fixed annuity for a long time, it pays a higher return than you would probably receive on a savings account or CD. However, this return is not so high as to take care of the nuisance costs involved in annuities. The biggest problem with a fixed annuity is that you lose liquidity. Most annuities come with a surrender charge and tax implications that make accessing your money expensive. Even beyond the surrender charge period, fixed annuities often contain penalties for accessing your funds within a certain period. Ridiculous disadvantages such as these are the reasons people no longer buy individual bonds to get their interest. For small amounts and very high rates, the payments are just not worth it. If you are going to convince someone to go into an annuity at all, they should be thinking at least \$100,000—and it should be in an account that they have excellent reason to believe they will not need before their retirement.

Another disadvantage of fixed annuities is inflation. While your account is locked from you, inflation continues on its merry way. If prices increase moderately at, say, 3% for 20 years, your annuity seems to be defying gravity, providing fantastic nominal returns of 7%, 8%, 9%. When you cash out after 20 years, you can't buy with your dollars what you could have bought with only 3% returns after 20 years. In other words, the combination of fixed periods and excess nominal interest rates cause volatility and, hence, risk in real returns over long periods. While being less risky than their individual-bond or stock market cousins, fixed annuities are thus by no means risk-free.

10.3. Exploring Variable Annuities

The first hundred plus pages of this manuscript explore methods to create a stable income for life. Before modifying this guaranteed lifetime income with risk-based financial products, it is logical to explore variable annuities, which are, by definition, the annuity product which contains volatility. A substantial sub-industry exists within the annuity industry that seeks to maximize revenue by creating an overly complex and shrouded additional product inside a sub-account structure that is both regulated and unregulated. With that disclaimer – charge higher management fees to investment professionals for access to a product that charges higher management fees – let's explore variable annuities in this section to draw a line between those who do dislike them and those who do not. We will explore VA characteristics, investment options associated with VAs, benefits, and then risks which will lead to a well-reasoned logical conclusion.

The word volatility carries a specific meaning in the investment world, which is that something goes up and down more than other objects you are comparing to. Annuities, generally, have fixed or stable income payments but variable annuities pay fluctuating

or variable income payments. VAs do this by pairwise ownership of a sub-account market investment with an annuity contract but not truly because the investment returns become the basis of the income calculations in conformance with the annuity contract rules. Let's talk about the general characteristics of variable annuities. They do provide fluctuations in cash flows, but they also provide the ability to assign a beneficiary for a variable death benefit, allowing spouses and heirs to benefit from market returns for that time period in which the annuitant dies prematurely relative to life expectancy.

10.3.1. Characteristics of Variable Annuities

Exploring Variable Annuities

Variable annuities provide policyholders with a method of creating a lifetime stream of retirement income that can still grow during retirement as the policyholder participates in the investment growth of the separate account, without being subject to its entire volatility. Variable annuities do this by incorporating a portfolio of stock instruments – the variable annuity's separate account – into the contract. This variable account replaces the fixed rate of return on the general account. The separate account earns a return that mirrors the progress of the stock market and provides the opportunity for the policyholder to invest different portions of their inherent risk tolerance into different portfolios.

Thus, variable annuities provide the policyholder with a greater potential for investment growth than do fixed annuities, while at the same time providing the comfort of a guaranteed return should the stock market go south. Variable annuities provide retirement expense security through the guaranteed lifetime withdrawal benefit. Variable contracts contain the same basic contract provisions of other retirement accounts in areas such as equity in their policy, taxation of premiums and investment growth, and income taxation of income and surrender amounts. However, variable annuities differ from other retirement accounts such as IRAs, Roth, or 401(k) plans in ways that consumers need to know and understand. These areas of important differences include contribution limitations, early withdrawal penalties, payment and withdrawal features, the naming of beneficiaries, and the taxation of the death benefit surrender. Nonetheless, variable annuities allow the policyholder to change pricing as risks and circumstances change.

10.3.2. Investment Options in Variable Annuities

In effect, each variable annuity is essentially a mutual fund. The mutual fund's investment manager invests the fund's assets in a variety of capital market securities for a fee, net of which the financial dynamics of the relationships between the fund's asset

value and value of its shares are the same as the dynamics of the relationship between a variable annuity's investment options and premiums allocated to the variable annuity account. For this reason, investment options in variable annuities are created using separate accounts that sole function is to create the required relationship. Separate accounts are similar to mutual funds, but their structure is somewhat different. They are similar in that they are set up to issue and redeem shares as they accept premiums and pay annuity benefit payments as establishes share prices are increased by the investment performance of the account's assets. Typically, the accounts are somewhat more complicated because they must also allocate such contracts as optional mortality-guarantee contracts, and other of the variable annuity's optional guaranteed benefit features, which necessitates setting the variable account's share prices accurately, from a variable annuity issuer's perspective, to allow for the risk exposure generated by the optional guarantees.

Variable annuities are set up to offer variable account investment options that create as wide a range of risk-return trade-offs as possible. Some accounts have low risk, low expected return investment objectives, while others are considerably riskier and are expected to have much higher average returns. In addition to the equity and bond accounts normally found in a mutual fund supermarket, variable annuities typically offer accounts that invest in real estate, currencies, and commodities. These alternative investment vehicles have low correlations with riskier conventional capital market investments and so help retirement investors further diversify the portfolios composed of account shares that they hope will accumulate the resources needed to meet their retirement spending objectives.

10.3.3. Benefits of Variable Annuities

The primary benefits of variable annuities include the opportunity for investment appreciation with the potential for loss during down markets, the avoidance of tax incidence until cash distributions are commenced, and the imposition of mortality and expense guarantees. Furthermore, the non-annuitized death benefits available to heirs circumvent the lengthy probate process. Variable annuities offer the opportunity for tax-deferred growth through the selection of one of several equity fund investment alternatives, many of which invest exclusively in common stocks. The current tax exclusion for realized capital gains and appreciation associated with variable annuity investment accounts is a powerful incentive for the affluent trader. However, because realized gains may be deferred only while the investment account is held in a variable annuity, such variable annuities may not be suitable for any equity mutual fund investments that are likely to be held for a life of less than five years. In addition, the mortality and expense guarantees in most variable annuities and the income tax

advantages of variable annuities make variable annuities a good choice for less affluent traders who seek low cost equity mutual fund investment experience for a part of their capital. These variable annuities typically provide a ten-year hold with surrender charges that slowly subside over that period. These people do not expect to hold the investment options long enough to incur long-term capital gains treatment. The tax incidence would be delayed but at ordinary income rates because less than 80% of their income is from salary. In such situations, however, a skilled investment manager could outperform a low-cost no-load mutual fund.

10.3.4. Risks Associated with Variable Annuities

Variable annuities carry a range of risks that must be considered alongside their benefits. Because the value of a variable annuity is linked to the performance of subaccounts containing mutual fund investments, the assets in a variable annuity are just as likely to decline as they are to appreciate, making variable annuities unsuitable for conservative investors seeking to preserve principal. Moreover, investing in subaccounts almost always comes with a higher price than a mutual fund investment. The investor will pay the mutual fund's expense ratio plus the insurance company's cost of maintaining the variable annuity, which is expressed as a separate account expense ratio that can range from 0.40% to over 2.00% annually. This expense ratio, when added to the mutual fund's ratio, becomes a significant barrier to total returns. Finally, a variable annuity's insurance features, such as a guaranteed minimum death benefit, are reflected within the separate account expense ratio—it's expected that returns on variable annuities, on average, will be lower than those on mutual funds.

Access to the subaccounts is not always easy. Moving assets between subaccounts may incur a charge, and many contracts prohibit transfers until the contract is at least a year old and only allow a specific number of transfers per year. Contracts often have surrender charges that gradually decline to zero. An investor who withdraws too much too quickly may find that a full or partial surrender is subject to loss of principal-based charges that had been waived while the contract was in force. In any year, the insurance company must also deduct a mortality and expense charge, which is usually expressed as an annual percentage of the account value, even if the client has taken no withdrawals. Genetic potential can also play a role in risk. If an investor's family has a history of "old age," variable annuities can allow the investor to keep assets invested much longer and forgo access to principal without penalty.

10.4. Indexed Annuities Explained

What is an indexed annuity, how does it work, and what are its main benefits and limitations? The purpose of this section is to provide concise, specific answers to these major questions about indexed annuities.

An indexed annuity is a hybrid investment product that combines features of fixed and variable annuities. Like a fixed annuity, the indexed annuity guarantees a minimum rate of interest that it will credit to your annuity each year, typically around 1 percent. However, the indexed annuity does not provide a fixed rate of interest. Rather, it offers a formula for determining the credited rate. This formula links the credited rate to the performance of a specified equity index over a selected period, usually one year. If the equity index has a positive performance, the annuity is credited with a percent of that performance, subject to a maximum rate. This maximum rate is known as the cap, and it is typically in the range of 10 to 15 percent. If the equity index has a negative performance, the annuity will be credited with zero. The result is that the indexed annuity provides a return that is higher than that of a fixed annuity during years when the performance of the equity index is positive, but lower during years when the performance is negative.

The major benefit of indexed annuities is the higher returns they offer compared to fixed annuities. But, because the indexed annuity is also like a fixed annuity in that it limits losses during bad years, the indexed annuity may be a more attractive investment vehicle for long-term retirement savings than variable annuities. This may be particularly true for you if you are a conservative investor and wish to retire when equity valuations are over-extended. Comparatively speaking, the indexed annuity allows you to participate in the stock market and grab some upside when returns are good, but also limits your losses during the bad years. Furthermore, indexed annuities are also a good product for retirement saving since a great many require a single premium payment at the time of purchase, making them useful for savers with lump-sum amounts to invest.

10.4.1. Characteristics of Indexed Annuities

As mentioned in Section 2.3, for an increasing number of investors, predictability of returns is not just a way to avoid taxes that help them sleep better at night, but a vital requirement of mature portfolios designed to protect against longevity and sequence of return risk. Fixed annuities offer their holders a guarantee: that their funds will compound at no more than a specified maximum mortality and expense normalized annual effective rate. Variable annuities offer at least the shadow of a safety net in the form of a minimum death benefit, a minimum accumulation benefit, or a combination of both. Indexed annuities fall in between. They promise some of the long-term, upside

downside risk transference of maximizing portfolio returns minus taxes afforded by variable annuities while providing a modicum of predictability offered by fixed (and fixed indexed) annuities. Compared to fixed and variable annuities, indexed annuities have the disadvantage of amplified complexity, but this complexity translates, for small investors in the period when it matters most to them, into benefits. Like variable annuities, indexed annuities incur extra investment expenses compared to fixed annuities. But unlike other deferred annuity contracts, indexed annuities limit the offered upside. And since the upside is capped, no extra upside premium is charged. Instead, the extra investment expense passes through loss years, which hedge funds charge onto the account of holders of indexed annuities who, unlike fixed annuitants, cannot escape the expressed volatility, as have the owners of variable annuities. So if fixed annuities offer comfort at the zero risk level, and variable annuities expose their holders to sequencing risk, indexed annuities mitigate both goals.

10.4.2. How Indexed Annuities Work

The index credibility is a method to define which Index returns will be used to compute the Indexed Annuity indexation event credited. Each Indexed Annuity provider has its method to define the index credibility. Too many Indexed Annuity providers have more than one Indexed Annuity product using the same Index. When this happens, it usually leads to different index credibility methods used to compute the indexation event. The indexation credit is typically based on the Index in the annuity contract and, in periods of long-term Index acceleration, the variation for an Index said porous contracts usually lead to the same variation for more than one Indexed Annuity. It is important to point out that no Indexed Annuity will have the same variable performance as an Index. Several invalid terms and phrases are commonly used to describe Indexed Annuity contracts. These claims are incorrect, and it is important to define the terminology used in the Indexed Annuity world. Indexed Annuities are common, and their investment performance is usually compared in terms of market value adjustment or minimum guaranteed value.

Historically, Indexed Annuities were marketed in terms slightly similar to equity-indexed life insurance policies, and it confused people. Labels, such as fixed equity-indexed investments or fixed index products still appear in advertisements or on the business pages of major newspapers. However, Indexed Annuities are best classified as a traditional deferred annuity. They are not securities; therefore, they are not subject to the rules and promotional restrictions of Insurance Regulation 240. In addition, Indexed Annuities contain no costs for life insurance, unlike equity-indexed life insurance policies, which have very complex costing methods. The contracts are not investment shares, unlike equity-indexed portfolios. In addition, because the distribution used for

the sales and interest accumulation and annuitization is not a normal distribution and does not follow the six-variable formula, there are no distributions or expected returns.

10.4.3. Benefits of Indexed Annuities

Purchasing an indexed annuity can ensure principal protection and limit drawdowns during poor equity market years. The drawback is that returns during high equity market increases are not as high as many investors would hope, but more modest returns can benefit older investors who prefer reduced risk rather than total investment return. A fixed indexed annuity may be a good choice for a retiree if the investor wants to lock in a specific level of income during the annuity payout period, which is often offsetting the longevity risk present for retirees. Although the income level may be adjusted upwards, it is unlikely that the annuity owner will see his or her annuity payments adjusted downwards. When financial crises occur, with the stock market taking a huge decline, the retiree need not be concerned about declining withdrawals from the annuity because withdrawal levels are not based on earnings.

With the present low interest rate environment likely to persist, investments in fixed indexed annuities may provide a better financial outcome than high investment accounts in non-registered investments. Investors should evaluate returns on this type of investment as more people are questioning how long deposit levels will persist in the low single-digit levels. Investors may also find these fixed indexed annuities preferable to variable annuities that have guaranteed income withdrawal options. Variable annuities charge relatively high fees annually while also investing an investor's lump sum premium in very risky equity and bond accounts. These fees tend to reduce returns. Indexing limits apply to returns measured over a specified period, usually between three and five years. However, the majority of bond indexed annuities allow for annual consolidations and most also have high watermark features.

10.4.4. Limitations of Indexed Annuities

There are many limitations to indexed annuities. First, the choice of the index determines the interest returns as well as the degree of risk from the perspective of the company. Life insurance companies generally do not provide a direct investment into equity indexed assets. Rather, a policyholder agrees to have part of a package of guarantees provided by the life insurance company in exchange for partial equity market exposure. The insurance company's equity market exposure is not well defined since on average they will want to structure their products so that their profit margins allow for the assumptions regarding the capital market expected future returns. Any deviations from

these expected returns will have an effect on the level of returns provided to policyholders.

The strategy for the life insurance company could also change over time. The method by which the equity indexed return is provided to the policyholder could change into a participatory equity investment in an underlying asset used to provide additional returns. Consequently, the historical differences between returns on equity indexed returns and the returns on equities may not be valid for the future. Policyholders should be aware of how the equity index exposures are being allocated on their behalf and what the nature of that allocation actually is. If there is no direct structure in terms of equity investments that mimic the index, the stochastic structure allows for a wide variety of possible outcomes. Therefore, just like any other product that creates uncertainty regarding the future relationship between returns, policyholders should be aware of the impact that this has on the possible outcomes during the payout phase.

10.5. Comparative Analysis of Annuity Types

For such important products, it is critical to conduct due diligence. The investor has a number of concerns or factors to consider when deciding, including how dependable the product is to achieve the stated objective of income for life, to what extent the product will risk the investor's life savings, what level of income can be expected, and whether the product can be trusted to provide that income when required. Factors such as traditional benefits compared to drawbacks, the variables of safety and risk, getting what is needed when it is needed, which annuity is the most economical, and differences between order and payment of premiums are considered. Also considered are the use of annuities for tax deferral and estate planning and taxation aspects, and the nature of the guarantees provided by each type of annuity. In analyzing the products we will be blunt, addressing the plusses and the minuses. We want the reader to know what to do to be able to make the best decisions.



Fig 10 . 2 : Fixed vs. Variable

Fixed vs. Variable Annuities

It may be incorrect to categorize fixed annuities as annuities and variable annuities as securities. This may be creating an issue that the industry was intended to eliminate. Research continues into the concern that there are to ultimately regulate all variable and fixed indexed products. It has also been observed that if a standard was developed allowing fixed annuities earning rates to fluctuate with the market at the same speed as variable annuities, it may be difficult to then distinguish protected fixed annuities from unprotected variable annuities. Further, it is difficult to picture an instance in which a pure fixed annuity could contain no investment aspect. It has recently been observed that a variable annuity without investment risks would be subject to numerous regulatory provisions.

10.5.1. Fixed vs. Variable Annuities

Both fixed and variable annuities “keep score” in terms of accumulated value and future income payments. Actuarial present value methods show that accumulated value is one of two components in the present value of annuity payments and the present value of accumulated value is the sum of the two components. The first component is the present value of immediate annuity payments at age 85 in excess of the point in time corresponding to death or policy expiration. For traditional annuities, income tax advantages favor deferred contracts with accumulated value rather than current income payments. The second component, applicable only to deferred contracts during the accumulation period, is the accumulated value at age 85 multiplied by the expected

required interest rate on the future net invested value of annuity payments plus the annuity factor at age 85 and the expected death probability of the customer. For fixed deferred annuities, unlike variable deferred annuities, the future net invested value of the annuity payments is zero until contract expiration at or after age 85. Therefore, the industry prefers to promote variable contracts with higher short-term commissions by marketing them as superior “growth” products.

The fact that the accumulated value of a fixed deferred contract is usually significantly higher than the accumulated value of a variable contract at any age during the period after receipt of the initiation payment, but prior to the death of the customer, detracts from the generally accepted promotional argument that variable contracts are superior “growth” products. Favorable terms and conditions for instant impeachment of customer parameters by insurance companies apply only to variable contracts, not fixed contracts. Another marketing paradox is that a consumer has to pay income taxes before being able to invest in a variable product with no guaranteed accumulated value at any age during the growth phase prior to the insurable event. Because accumulated value is a prerequisite for retirement and estate planning, why would a consumer prefer a product with a potentially zero accumulated value?

10.5.2. Fixed vs. Indexed Annuities

When compared to variable annuities, fixed and indexed annuities create more certainty and safety. An initial feature of a fixed annuity is stated in the contract: the insurance company guarantees a stated dollar amount will be paid. A particular indexed annuity contains guarantees but the amount is a function of a specified market index. Even though no indexed annuity has the guarantee of a fixed annuity, people who do not understand indexed annuities do not realize how the guarantee of an indexed annuity works and assume it functions like a variable annuity.

The most notable difference between the two guarantees is how the guarantee functions, not whether a guarantee exists. A fixed annuity guarantees a reality; an indexed annuity only guarantees the possibility of a reality. With a fixed annuity, there is no discussion: the stated amount will be paid—the insurance company simply writes a check for the stated dollar amount at annuitization. With an indexed annuity, it is not uncommon for assumptions to play an exaggerated role. Indexed annuities are very much in demand. The demand stems from the popularity of defining and indexing. People seem to unknowingly want to go through life “tied” to a particular index—whether it be a stock market index, a cost of living index, or an interest rate index. In retirement planning, people want their income distributions to define their lifestyles, not concepts like yields or rates of return, and they would like to have their income tied to the growth of something. Indexed annuities assume retirees receive a product tied to something.

10.5.3. Variable vs. Indexed Annuities

The major difference between indexed, fixed, and variable annuities lies with the investment performance. Indexed annuities and fixed annuities credit a specified amount of interest to the contract every year. Variable annuities credit investment performance as measured by the value of the contract after a specified period relative to the value of the investment at the start of that period. With indexed annuities, this measurement is made once and the results are used to determine what will be credited to the contract for the next contract year. With variable annuities, this measurement is also made at the end of a period but the credited amount varies in direct relation to investment performance. This variation is determined by the difference between the period values multiplied by an amount specified in the contract known as the variable investment rate.

The earliest indexed contracts were designed specifically to translate projected higher yields from stock market investments into higher returns than fixed annuities, and those contracts were designed for long-term contracts. The trade-off for this was contractual guarantees that fixed annuities provided. Indexed contracts had more in common with variable annuities than fixed annuities; there were guaranteed minimums along the way but the decision made for the owner was which indexed fund pattern to use and what variable investment rate might be calculated at the end of the contract term. Later designs built more fixed annuity features into both indexed and variable annuities. Contracts now may provide for a return of at least premium payments or premium payments plus interest once the contract has been in force for a specified time.

10.6. Tax Implications of Annuities

In the United States, annuities serve as vehicle to accumulate funds on a tax-deferred basis for retirement or other long-term needs, which may include long-term care. The participant in an annuity contract must pay taxes on the cash value growth of the investment, or on the interest, until it is withdrawn. The tax code specifies generally that when funds are distributed, including any increments, they are taxed as ordinary income. However, this income is likely to be taxed at lower tax rates than would normally apply. If the annuity is owned by a tax-deferred entity, a provision provides that all (or the relevant fraction) of the distribution is treated as taxable income (but not subject to any excise tax).

Tax implications upon distribution (before or after annuitization) depend upon whether the annuity is owned by an individual or a tax-deferred entity. Distributions from IRAs or tax-qualified plans, including after-tax contributions, are taxed without regard to general rules, so the entire distribution (less basis) is taxable until the entire account is exhausted. Income tax, along with a 10% excise tax on early distributions, is due on

excess distributions from Roth IRA annuities. The excess amount is the excess of the account balance over the amount attributed to the owner's basis.

With regard to distributions from nonqualified annuities, a portion of each payout is taxable until the annuitized payments exceed the previously taxable amount (basis for tax-free treatment is that portion of the premiums actually invested). Early distributions from nonqualified annuities carry with them a 10% income tax penalty (unless for hardship). Distinction must also be made regarding distributions upon death, which meet early distribution criteria, for joint and several owners (and deceased 50%-interest owners). Each of these individuals is liable for the entire amount due of the 10% income tax penalty, not reduced for their basis.

10.6.1. Tax Treatment of Fixed Annuities

Fixed annuities provide a sequence of guaranteed periodic payments made in exchange for a lump-sum purchase payment. Fixed annuities are usually purchased with pre-tax funds, which may include the effects of an employer matching contributions and the growth of the funds over time. To qualify for tax deferral, a traditional fixed annuity must be purchased with pre-tax funds or deductible contributions made from pre-tax income. An important feature of fixed annuities correlates the tax treatment of such contracts with tax treatment of traditional retirement plans. Like other traditional retirement plans, fixed annuities will incur a penalty if distributions occur prior to age 59½, as well as taxes on the amount beyond a specified exemption at the time of the distribution. If fixed annuities are organized as IRAs, with all the contribution, withdrawal, and fair market value rules that entails, there are numerous other specific rules and contributions that must be adhered to.

The IRS taxes the amounts that were not previously taxed before annuitization. Thus, the "recovery" is applied to excess amounts over what was paid in before tax. The relevant tax code specifies that recovery of the pre-tax cost can either be done through annuitization or through pro rata withdrawal during the accumulation phase. This means that annuitization can be generalized as an annual skin-in-the-game tax concept that leads to full taxation once the taxation is completed, at which point withdrawals would only consist of previously untaxed income. In very rare cases there might be tax incentive for changing between different products. However, on a long-term basis, these generally would not apply if products are similar in structure. These tax implications will, to some extent, guide the products offered, as they can trade-off risk and return in interesting ways.

10.6.2. Tax Treatment of Variable Annuities

At least three tax factors determine whether and to what extent annuity amounts paid are subject to tax as annuity income. These tax factors are the owner's basis, the intended use of the contract, and internal income deductions solely against it. A variable annuity grows in value based on the performance of the underlying assets. The investment returns are neither taxable nor included in the variable annuity income until a distribution is made, so long as the income continues to grow on a tax-deferred basis along with the annuity account and is not withdrawn from the contract. In addition, as is true for fixed annuities, during the time between the annuitization of a variable annuity and the final payout, not only is the owner not taxed on any fluctuation in the value of the variable annuity, but he or she cannot claim any losses for tax purposes that occur while the variable annuity is in its accumulation phase. Only investment gains taxed as income can be distributed in an amount over the basis to the annuitant. Withdrawals over the basis expose the annuitant to income tax, since variable annuity funds are initially considered to be a return of basis.

The self-judging method, or the method for determining qualified or taxable annuity payments states that, upon partial distribution from the plan, the amount of annuity payment that is income for tax purposes is the gain, or increase, in the annuity investment at the time during the year of the annuity payment. Periodic payments under variable annuity contracts are taxed under the method. The excess of each payment that is taxable as ordinary annuity income is the ratio of taxpayer's total variable annuity investment, which is the sum of basis plus any taxable gain at the time of payout, to the total quantity of installment payments, multiplied by the number of those installment payments that have been received.

10.6.3. Tax Treatment of Indexed Annuities

Like all other nonqualifying annuities, the tax treatment of indexed annuities is determined by the rules for nonqualified annuities and by election provisions. Indexed annuities combine the characteristics of risk-free fixed annuities with those of more volatile variable annuities by providing a rate of return that is usually linked in some manner to the performance of an index and often guarantees a minimum interest rate. However, an indexed annuity may not fit the categorization and tax treatment of either a fixed or a variable annuity, so the tax treatment of indexed annuities is not governed entirely by the tax treatment of fixed or variable annuities.

An indexed annuity is an annuity contract under which the cash surrender values, any loan values, and any death benefits are not determined from the accumulation of premiums but are recognized only to the extent provided by the contract. An indexed

annuity provides an interest rate for an accumulation period that is based on a specified equity index. The contract guarantees that the minimum interest rate for an accumulation period will be at least a certain percentage, usually much less than 100%. Indexed annuities use various methods to calculate the interest rate for determination of the annuity's future value. The price multipliers associated with an indexed annuity often operate to reduce the crediting rate if the equity returns exceed a specified percentage. For this reason, indexed annuities are also labeled "bank products." Such contracts are insured by state deposit insurance agencies and have become a significant portion of the insurance company annuity growth.

10.7. Choosing the Right Annuity for Your Needs

An investor's personal circumstances must ultimately drive their choice of an annuity. When assessing any investment, certain basic parameters apply. However, three specific characteristics appear to be the most critical with respect to the selection of an annuity.

1. Assessing Financial Goals

An investor must have an understanding of and therefore be able to describe in detail their personal financial situation and general future expectations of their life events. Are they expecting to get married, have children, buy a house, have college expenses, change jobs, and retire? And if so, when? These expectations about timing and expenses must be put into a cash-flow statement that documents the inflows and outflows over each of the near- and mid-term future years. At what point in the outline does the investor want to stop working actively? In addition, what are the chances of suffering a serious disability before the planned retirement date? What amount of income are they expecting from pensions and Social Security? Do they have any sizable outstanding debt? Would they want to leave an estate for their spouse or children? What is their estate tax liability? These answers help determine how much of their assets should be protected from risks, and what types of risks they wish to handle personally.

2. Risk Tolerance Considerations

Risk tolerance applies not only to the specific and unique financial situation of an investor but also to their behavioral attitude toward loss and their assessment of the length of time need to achieve a desired investment return. A wealth manager invariably finds that a vast majority of their clients are clueless about the risk factors affecting their investment portfolios. Some have gotten to their wealth level through significant personal financial sacrifice, while many have been fortunate enough to inherit their money or be gifted funds through various life events. Nevertheless, few investors or even their advisors have done an excellent job fully determining their true risk tolerance.

10.7.1. Assessing Financial Goals

Understanding your financial goals is necessary to make wise financial choices. Since the goals differ from person to person, one has to assess these on a personal basis. One's financial goals are based upon the following topics.

Cash Flow Planning An annuity should serve as a lump-sum investment vehicle for the accumulation of retirement funds, but it is not particularly appropriate as a means of regular savings through periodic payments, although some policies allow for it. Other than providing a savings vehicle, the main purpose of an annuity is to convert accumulated retirement savings into a steady flow of income whenever required. Since the major need during retirement is preservation of capital, and since the income is tax-deferred until withdrawal, prudence would dictate investing only the amount that is needed to be converted to income. The balance that is wanted as regular income should be invested in highly liquid, interest-bearing instruments. These instruments usually do not pay the highest rates, but they should meet the goal of safety and liquidity.

Retirement Planning Some individuals are blessed with great financial resources that provide for a very comfortable lifestyle during retirement. These individuals usually do not worry about how much money to withdraw each year during retirement because their wealth continues to grow and they enjoy their withdrawals. However, most individuals must manage their assets prudently during retirement, using their resources to maintain their lifestyle, but also ensuring that they have enough money to get through their retirement years without running out of money. To achieve this goal requires retirement planning, projecting the income needs during retirement and estimating the amount of money that will be necessary to earn the income while controlling risk exposure.

10.7.2. Risk Tolerance Considerations

Risk tolerance is traditionally thought of as the volatility and loss issue. How much loss is a potential investor willing to incur as they work toward their investment goal? Investing primarily in stocks is the most volatile, at times offering potential maximum returns and maximum losses as well. More conservative investments, usually shorter-duration fixed-rate instruments, are more stable and offer less potential upside. But there is a very real cost for that stability. These investment choices are made long before any shareholder cash-out requirements arrive. And a company can go out of business or its stock can remain dormant for decades and be worth less than investor input. Individual predisposition to risk has been defined in many ways, and an investor's choice of financial vehicles is not driven by one simple fact.

However, importance is placed by many advisers on the need for stable vehicles for retirement funds with relative long investment time frames. The potential for loss is very

real as the date for shareholder cash-out approaches. It is a profoundly risky business decision to invest retirement funds in volatile vehicles, believing that the volatility will have led to generous maxims on their retirement date. There are many discussions and analyses of the volatility of stock versus bond market returns, expenses for financial institutions, and the secular trends of both, as applied to defined benefit plans. It is often stated that employed individuals have adversely asymmetric wealth positions because of the potentially adverse ramifications of investment losses when they are approaching cash-out date.

10.7.3. Time Horizon for Investments

The first requirement is simple: you must first identify your time horizon. You are going to need your capital to generate income to sustain your food and shelter needs in some future year or years. You may want this in the relatively near future – for many retirees, this is year zero. Most annuities, of whatever type, are not built to satisfy a year zero need for income. The capital accumulated outside of the annuity is expected to meet this immediate income requirement. However, the major risk of capital falls close to death, not at its beginning. Planning for income at nearest death remains the province of social insurance programs and, for those fortunate enough to need them, employer pensions.

Thus for many people, their time horizon is decades into the future. Hopefully, by then, any remaining need for multiplied capital has collapsed down to zero. However, there are others for whom capital needs are much closer to the present. Maintaining good health is key to living a long life and declining health will hasten the day when medical needs overwhelm resources. Thus consideration of capital needs for the relatively near future is a subjective risk. However, we also have to consider the other side of the argument, which is whether or not you have the capital at risk, which might delay or postpone a need to use income if you hit a bad return during this period.

There may be a middle position where a purely objective time horizon exists. A commitment has already been made to a residential service such as assisted living or nursing care. Health or financial needs will lead to a required de-accumulation of capital in the near future. However, the duration of this period is still uncertain. Insurance could be bought to protect against an adverse outcome or a long term capital guarantee annuity could be purchased to provide relative safety against the possibility of being forced into early liquidation of a portfolio of financially risky assets.

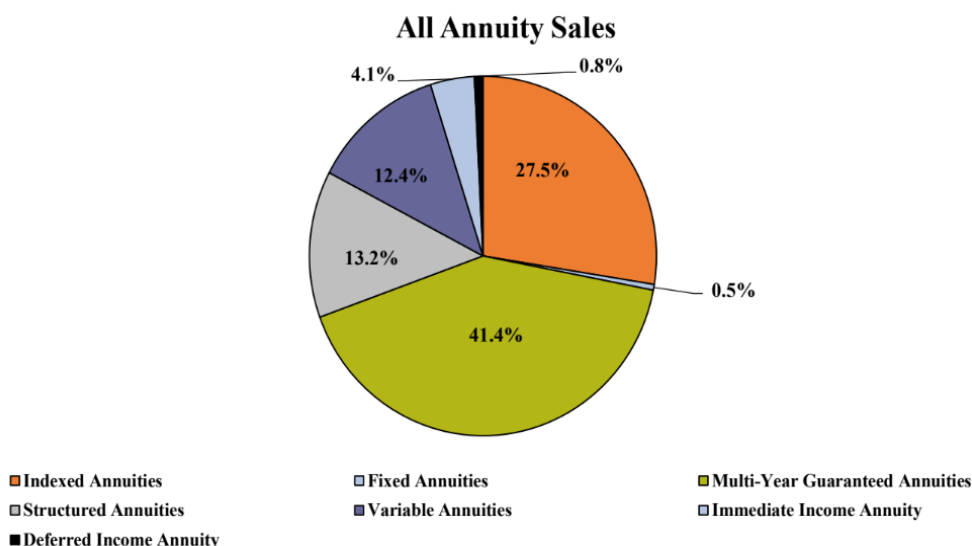


Fig 10 . 3 : Indexed and Structured Annuity Sales

10.8. Conclusion

We have only scratched the surface of what needs to be considered when looking at fixed, variable, and indexed annuities. Every silver lining has a cloud. There are no absolute guarantees when it comes to long-term financial security. Considerations include inflation. While fixed annuities currently offer competitive rates, with inflation at current low levels, a rapid reversion to inflation rates of 5 to 10 percent would quickly erode the purchasing power of any fixed annuity. Currently you would need to lock it in to get a “good” real interest return after tax. This interest would be paid only until the large factors of aging are overcome, whereby future reliance would return almost entirely to the more uncertain routes of equity return and company benefit plans. Should such inflation occur, it may be prudent to take the benefit yourself off your tax return and invest it in equities which historically pay higher returns than fixed income investments. If so, you would be better off than relying entirely on an annuity.

At some point inflation will become a significant issue again. But we have to deal with an aging population in the west and the national debt, and almost no flexibility in the currency levels of the few countries still in control, which could make such an outcome entirely possible. As to the other forms of annuities, they offer the potential for greater return with the expectation of some risk. The observational rule to maximize the benefits from these companies as we have noted is considered to be present a shiftingly balanced portfolio to spread your risk on a long-term equitable basis is the prudent strategy. Or your situation may warrant more reliance on fixed annuities or T-bills. This type of

flexibility usually requires your pencil or spreadsheets to go into long calculations using modeling methods.

10.8.1. Final Thoughts on Annuity Options and Considerations

This chapter serves to summarize and distill the prior information on fixed, variable, and indexed annuities into simple terms that emphasize their use in considerations for structuring long-term financial security.

In summary, fixed annuities provide for the safety of principal, a guaranteed minimum rate of return, and security against the problem of excessive longevity. However, their limited upside return potential means that they likely will not provide for any substantial growth in purchasing power over time, other than through the elimination of tax on their interest accumulated during the accumulation phase. Thus, they are useful instruments for meeting near-term risk management concerns such as reducing the risk of excessive mortality due to long-term care needs, and for structuring core financial security during the early years of retirement.

Variable annuities provide for growth potential if the performance of the investment funds that are selected exceeds the cost of the variable annuity. The investment performance of the funds applied to the investment of variable annuity premiums is most likely to exceed inflation-adjusted fixed annuity deposit rates during the latter years of the investment accumulation phase and the later years of the retirement income payout phase, provided that the individual or his/her investment advisor selects the investment funds judiciously and monitors the investment performance on a regular basis. Thus, they are useful investment vehicles for the long-term accumulation of above-inflation returns, but they do have certain mutability costs associated with them. These costs probably will reduce purchasing power if assets are withdrawn from a variable annuity during periods of market decline or if investment returns fail to exceed the cost of the variable annuity during some measure of time.

References

- Kimura, H., Delgado, M. E., & Silva, M. K. (2024). Comparative performance of fixed, variable, and indexed annuities in retirement planning. *Journal of Retirement Financial Strategies*, 11(2), 63–79. <https://doi.org/10.1016/j.jrfs.2024.02.004>
- Wallace, S. R., Lin, C. H., & Patel, L. N. (2023). Indexed annuities and market-linked guarantees: Design, risk, and investor suitability. *Journal of Insurance Product Innovation*, 8(3), 91–107. <https://doi.org/10.1016/j.jipi.2023.03.007>

- Ellis, K. J., Zhang, Y., & Freeman, A. J. (2025). Understanding the role of variable annuities in asset allocation and income security. *Applied Pension Finance Review*, 14(1), 49–65. <https://doi.org/10.1016/j.apfr.2025.01.006>
- Nguyen, T. H., Ortega, D. M., & Jackson, A. M. (2023). Consumer behavior in annuity selection: A behavioral finance perspective. *Journal of Retirement Planning and Behavior*, 6(4), 77–94. <https://doi.org/10.1177/20420986231190873>
- Rahman, S. K., Osei, R. Y., & Bennett, H. (2024). Risk-adjusted returns and longevity protection: A study of annuity structures in volatile markets. *Journal of Long-Term Financial Engineering*, 9(2), 58–75. <https://doi.org/10.1016/j.jltfe.2024.02.003>