## Annuity Basics

## The Nature of Annuities

An annuity is a stream of periodic payments. Start with a lump sum of money, pay it out in equal installments over a period of time until the original fund is exhausted, and you have created an annuity. An annuity is simply a vehicle for liquidating a sum of money. Of course, in practice the concept is more complex. An important factor not mentioned above is interest. The sum of money that has not yet been paid out is earning interest, and that interest will eventually pass on to the recipient.

Anyone can provide an annuity. Insurance companies provide lifetime annuities to retirees. A homebuyer will provide a mortgage company with an annuity as she pays off the monthly mortgage payments; likewise those purchasing cars and other goods on an installment plan are in effect paying out an annuity. By knowing the original sum of money (the principal), the length of the payout period and an assumed rate of interest, it is a fairly simple process to calculate the payment amount. Actuaries have constructed tables of annuity factors that make this process even easier. These tables are referred to as "present value interest factor for a $\$ 1$ annuity".

| Years | $\mathbf{7 \%}$ | $\mathbf{7 . 5 \%}$ | $\mathbf{8 \%}$ | $\mathbf{8 . 5 \%}$ |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | $\$ 0.934579$ | $\$ 0.930233$ | $\$ 0.925926$ | $\$ 0.921659$ |
| $\mathbf{2}$ | $\$ 1.808018$ | $\$ 1.795565$ | $\$ 1.783265$ | $\$ 1.771114$ |
| $\mathbf{3}$ | $\$ 2.624316$ | $\$ 2.600526$ | $\$ 2.577097$ | $\$ 2.554022$ |
| $\mathbf{4}$ | $\$ 3.387211$ | $\$ 3.349326$ | $\$ 3.312127$ | $\$ 3.275597$ |
| $\mathbf{5}$ | $\$ 4.100197$ | $\$ 4.045885$ | $\$ 3.992710$ | $\$ 3.940642$ |
| $\mathbf{6}$ | $\$ 4.766540$ | $\$ 4.693846$ | $\$ 4.622880$ | $\$ 4.553587$ |
| $\mathbf{7}$ | $\$ 5.389289$ | $\$ 5.296601$ | $\$ 5.206370$ | $\$ 5.118514$ |
| $\mathbf{8}$ | $\$ 5.971299$ | $\$ 5.857304$ | $\$ 5.746639$ | $\$ 5.639183$ |
| $\mathbf{9}$ | $\$ 6.515232$ | $\$ 6.378887$ | $\$ 6.246888$ | $\$ 6.119063$ |
| $\mathbf{1 0}$ | $\$ 7.023582$ | $\$ 6.864081$ | $\$ 6.710081$ | $\$ 6.561348$ |
| $\mathbf{1 5}$ | $\$ 9.107914$ | $\$ 8.827120$ | $\$ 8.559479$ | $\$ 8.304237$ |
| $\mathbf{2 0}$ | $\$ 10.594014$ | $\$ 10.194491$ | $\$ 9.818147$ | $\$ 9.463337$ |

The table above displays the present value interest factors for annual payments of $\$ 1$ lasting various periods of time assuming different levels of interest. For example, the present value interest factor for ten annual payment of $\$ 1$, based on an 8 percent interest factor, is $\$ 6.71$. This means that if a person set aside $\$ 6.71$, and could earn 8 percent interest while the fund was being depleted, an annual income of $\$ 1$ could be paid for 10 years. In other words, the income recipient would receive a total of $\$ 10$ for the original $\$ 6.71$ invested in the annuity. The difference represents interest collected on the $\$ 6.71$ over 10 years.

Actuaries have calculated similar tables for different rates of interest and to solve for related problems: for example, how long payments can be paid for any given amount of principal. Of course, with modern financial calculators you can now find these values without resorting to books of tables. But the basic underlying principle is the same in every case - the amount of an annuity payment is dependent upon three factors: starting principal, interest rate and payment period.

Using these tables, it is easy to calculate the monthly payment on a 30 -year fixed mortgage or a 5year car loan. The tables, however, are not as useful in finding out what the lifetime income payment should be for a 65 -year old retiree. For that, one needs to know his life expectancy. Life insurance companies, because of their experience with mortality tables, are uniquely qualified to combine an extra factor - called the survivorship factor - into the standard annuity calculation. (Life insurance is concerned with when the insured will die; annuities are concerned with how long the insured will live.) The survivorship factor is, in essence, the mirror image of the mortality factor in life insurance. Life insurance companies, relying on risk pooling and the Law of Large Numbers, are the only ones who can guarantee annuity payments for life, regardless of how long that life lasts. This is the one distinguishing factor that separates life insurance companies from all other financial institutions. While anyone can set up an annuity and pay income for a stated period of time, only life insurance companies can do so and guarantee a lifetime of income life for the annuitant.

## Annuities vs. Life Insurance

While life insurance companies issue annuities, it is important to note that annuities are not life insurance contracts. Annuities are best described as the mirror image of a life insurance contract they look alike but are actually exact opposites. The principal function of a life insurance contract is to accumulate a sum of money by the periodic payment of money into the contract (sometimes referred to as "creating an estate", where an "estate" means a sum of money). An annuity's principal function is to liquidate an estate by the periodic payment of money out of the contract. Life insurance is concerned with how soon one will die; life annuities are concerned with how long one will live. Life insurance uses a mortality factor; annuities employ a survivorship factor. One purchases life insurance to protect against dying "too soon"; one buys an annuity to protect against living "too long".

It is easy to see how annuities can meet some important financial needs. Their role in retirement planning should be obvious; guaranteeing that an annuitant cannot outlive the payments from a life annuity has brought peace of mind to many people over the years. Annuities can play a vital role in any financial plan where a stream of income is needed - whether for a few years or for a lifetime.

## Annuity Basics

Individuals may purchase annuities with a single sum amount or through a series of periodic payments. The insurer credits the annuity fund with a certain rate of interest, which is not currently taxable. Over time, the value of the annuity grows. The ultimate amount that will be available for payout is a reflection of the amount the investor pays into the contract and the interest the insurance company credits to the contract. While, most annuities guarantee a death benefit payable in the event the annuitant dies before payout begins, the death benefit is usually limited to the amount paid into the contract plus interest credited.

With any annuity, there are two distinct time periods involved: the accumulation period and the payout or annuity period:

The accumulation period is that time during which the contractholder pays premiums into the annuity and the insurer credits interest earnings to the contract. During the accumulation period, the contractholder retains some control over the contract. For example, the contractholder may withdraw funds from the contract, surrender the contract, exchange the contract for a different type of annuity or for a contract issued by another company. The contract will detail what rights the contractholder has during this period and any limitations on those rights. In addition, the IRS may impose limitations or penalties in some circumstances. The accumulation period can last for years, or may be a momentary point in time, depending on how the contract is funded.

During the annuity period, the insurer pays periodic payments to the recipient. The conversion from the accumulation period to the annuity period is referred to as "annuitization". At this point the contract turns from an investment vehicle to an income-paying device. During that process, the contractholder chooses how he or she would like the annuity payments to be paid out of the contract. Typically, benefits are paid out monthly - though a quarterly, semiannual or annual payouts are possible. There are a number of payout options the contractholder may choose (these are discussed below). In some contracts there is no requirement that the contract ever be annuitized, i.e., the accumulation period may continue indefinitely. Other contracts may require annuitization by a certain date or age - this is often called the contract's starting date or maturity date. Some contracts may impose a maturity date, but allow the owner to extend the accumulation period (i.e., delay annuity payments) by giving the annuity company written notice. Regardless of the terms of the contract, once it is annuitized the contractholder loses control over the account, and the company will simply pay the income payments selected by the contractholder.

The distinction between the accumulation period and the annuity period is key to understanding contract provisions and tax treatment.

## Parties to an Annuity

There are at least three parties to an annuity contract:

- contractholder (also called the owner): is the investor who pays the premium, controls the contract during the accumulation period, and collects the eventual annuity payments. The contractholder is usually a "natural person" (i.e., a human being) but the contractholder could be a cor-
poration, trust, estate or other legal entity. The contractholder retains all rights granted under the contract: when to annuitize, selection of the payout option, whether to surrender the contract, etc.,
- annuity company: usually is an insurance company that collects the premium, invests those premiums and guarantees eventual payment from the contract, and
- annuitant: the "natural person" whose life is used to measure the annuity payment period. The annuitant must be a natural person, i.e., a human being with a finite lifespan. In many cases, the annuitant is the same person as the contractholder. It is important to note that the annuitant has no rights under the contract - the annuitant is simply the "measuring life" - any eventual annuity payments are based on the length of the annuitant's life (or lives, in the case of joint annuitants).

There may be a fourth party in an annuity contract:

- beneficiary: depending on the annuity payout option selected by the contractholder, payments may continue after the annuitant's death - those payments will be paid to the beneficiary.



## Structure and Design of Annuities

There are many ways to describe annuities, based on different factors:

- How will money be added to the contract? The contractholder may pay a single premium or periodic payments to the annuity company.
- When will annuity payments be paid out of the contract? Some contracts begin annuity payments immediately; others will defer income payments into the future.
- How long will annuity payments last? Annuity contracts offer a number of payout options for a stated period of years or, more commonly, for a lifetime.
- How does the annuity company invest the funds in the contract? In some contracts, the company will hold the funds in the general assets of the company and guarantee a fixed rate of return, in other contracts, the funds are invested in a separate account, and the "interest rate" varies based on the investment results of the separate account.


## How will money be added to the contract?

An annuity begins with a sum of money, called the principal. Annuity principal is created or "funded" in one of two ways: all at once with a single premium or over time with a series of periodic premiums.

## Single Premium

Annuities can be funded with a single, lump-sum premium, in which case the principal is created immediately. For example, an employee has been accumulating funds for retirement in his 401 k plan. At retirement, the employee could use the accumulated value in that account to fund the purchase of an annuity to provide retirement income. Insurance companies commonly use a life insurance policy's death benefits to purchase a single premium annuity as a life income settlement option.

## Periodic Payments

Annuities can also be funded through a series of periodic premiums that, over time, will create the annuity principal fund. In the past, it was common for insurers to require fixed and level installment premiums, much like traditional life insurance premiums. This allowed the company to guarantee future values at the contract's inception (just like traditional life insurance).

Today, insurers often allow annuity owners to make flexible premium payments. A certain minimum premium may be required to purchase the annuity, but after that, the owner can make premium deposits as often as he or she desires - this is analogous to the premium flexibility of universal life insurance.

## When will annuity payments be paid out of the contract?

Annuities can be classified by the date the income payments to the annuitant begin. Depending on the contract, annuity payments can begin immediately or they can be deferred to a future date.

## Immediate Annuities

An immediate annuity makes its first benefit payment to the annuitant at one payment interval from the date of purchase. Most annuities make monthly payments, so an immediate annuity would typically pay its first payment one month from the purchase date. Immediate annuities have no real accumulation period - the annuity period begins at the inception of the contract.

Immediate annuities must be funded with a single payment, and are often called "single-premium immediate annuities", or SPIAs. An annuity cannot simultaneously accept periodic funding payments by the contractholder and pay out annuity income.

## Deferred Annuities

Deferred annuities delay the start of income payments to some future date. Unlike immediate annuities, deferred annuities can be funded with periodic payments over time. Periodic payment annuities are commonly called flexible premium deferred annuities, or FPDAs. Deferred annuities can also be funded with single premiums, in which case they're called single-premium deferred annuities, SPDAs.

Deferred annuities have an accumulation period. As noted above, the contractholder retains important rights during the accumulation period - such as the ability to surrender the contract, withdraw funds from the contract and exchange the contract for a more suitable contract. The contract will outline what those rights are. Most insurers charge contractholders for withdrawal or surrender of deferred annuities in the early years of the contract. These surrender charges cover the costs associated with selling and issuing contracts as well as costs associated with the insurer's need to liquidate underlying investments at a possibly inappropriate time. Surrender charges for most annuities are of limited duration, applying only during the first five to eight years of the contract and usually on a sliding scale, i.e., lower charges in later years. However, most contracts will waive those charges for small withdrawals, say, up to $10 \%$ of the annuity's value annually. In addition to the contract's surrender charges, the IRS imposes a penalty on withdrawals from deferred annuities prior to age $591 / 2$. (This is similar to tax treatment of qualified retirement accounts such as a 401 k plan. It is important to note that, unlike qualified retirement plans, withdrawals need not be taken from a deferred annuity at age $701 / 2$.)

The contractholder has effective control over the deferred annuity until he or she decides to "annuitize" the account. Annuitization is simply the decision to start receiving periodic annuity payments from the contract. Once that decision has been made, the contractholder loses control of the contract and the company will simply pay the promised income payments. While some contracts, at their inception, specify the date annuity payments are to start, most deferred contracts leave the decision to "annuitize" up to the contractholder. Indeed, many annuity contracts continue in the accumulation (or investment) period indefinitely - that is, they never annuitize.

## How long will annuity payments last?

Annuitants have numerous payout options. As mentioned earlier, the amount of each annuity payment is based on three factors: principal, interest and the length of the payout period. So the size of each payout obviously depends on the amount accumulated in the contract. In the case of lifetime payouts, the size of payments also depend the life expectancy (or survivorship factor) of the annuitant. All other factors being equal, younger annuitants with a longer life expectancy will receive smaller annuity payments than a person annuitizing an equal amount at an older age. Likewise, women, who have longer life expectancies than men, will be paid smaller annuity payments (unless the company uses "unisex" survivorship factors.) Another factor the company will consider is whether the payout method provides for possible continued payments to a beneficiary. These payout options may extend the payout period past the annuitant's lifetime and consequently result in lower periodic payments.

Please note that the size of future annuity payments is calculated when the account is "annuitized". Deferred annuities typically offer the contractholder guaranteed minimum payouts at the contract's inception, but in many cases, the company will offer the contractholder more advantageous "current" payouts when the contract is actually annuitized. And as we'll see when we discuss exchanges later in this course, the contractholder can exchange the current contract for another contract that offers better payout options - and then annuitize the new contract. Once the payout method is selected, the size of the income payments will not change in the future (or in the case of variable annuities, discussed below, the number of annuity units remains fixed).

Contractholders may choose among a number of annuity income options: straight life income, cash refund, installment refund, life with period certain, joint and survivor, as well as annuities for a specified period.

## Straight Life Income Option

A straight life income annuity option (often called a life annuity or a straight life annuity) pays the annuitant a guaranteed income for his or her lifetime. When the annuitant dies, no further payments are made to anyone. If the annuitant dies before the annuity fund (i.e., the principal) is depleted, the balance, in effect, is "forfeited" to the insurer. The company will use the forfeited balance to provide payments to other annuitants who outlive their life expectancies. (Companies rely on "risk pooling" and the "Law of Large Numbers" when constructing annuity contracts - just as they do when they underwrite life insurance.)


Of all of the payout options, straight life pays the highest monthly income payments, all other factors being equal. This is because the insurance company has the possibility of retaining the "forfeited" funds under a straight life annuity. All of the following options provide for additional payouts to beneficiaries, and therefore will pay slightly lower monthly payments than the straight life option.

## Cash Refund Option

A cash refund option provides a guaranteed income to the annuitant for life and, if the annuitant dies before the annuity fund (i.e., the principal) is depleted, a lump-sum cash payment of the remainder is made to the annuitant's beneficiary, Thus, the beneficiary receives an amount equal to the beginning annuity fund less the any principal payments made to the deceased annuitant.
CASH REFUND
ANNUITY
FUNUITY
Equal payments are paid periodically for the
annuitant's lifetime. If proceeds remain unpaid
upon the death of the annuitant, the unpaid pro-

ceeds are paid to a beneficiary. | Unpaid proceeds |
| :---: |
| paid to |
| beneficiary |

## Installment Refund Option

The installment refund option, like the cash refund, guarantees that the total annuity fund will be paid to the annuitant or to his or her beneficiary, The difference is that under the installment option, the fund remaining at the annuitant's death is paid to the beneficiary in the form of continued annuity payments, not as a single lump sum.

Under either the cash refund or installment refund option, if the annuitant lives to receive payments equal to the principal amount, no future payments will be made to a beneficiary.


## Life with Period Certain Option

The "life with period certain" option, also known as "life income with term certain", is designed to pay the annuitant an income for life, but guarantees a definite minimum period of payments. For example, Janice selects a life and 15 -year certain annuity, she is guaranteed payments for life or fifteen years, whichever is longer. If Janice receives monthly payments for seven years and then dies, her beneficiary will receive the same payments for eight more years. Of course, if she died after receiving monthly annuity payments for 15 or more years, her beneficiary would receive nothing from the annuity. The contractholder may select any timeframe for the "period certain", with 10 and 15 years being common.

Annuities with longer "periods certain" have lower monthly payments, all other factors being equal. If Janice had picked a 10 -year period certain, instead of 15 years, her monthly payments would be slightly larger. In other words, additional protection for her beneficiary comes at a cost.


## Joint and Survivor Options

The joint and full survivor option provides for payment of the annuity to two people. If either person dies, the same income payments continue to the survivor for life. When the survivor dies, no further payments are made to anyone. Payments may continue at the same level to the survivor, in which case the annuity is "joint and full survivor". As you might imagine, this is a popular way for married couples to guarantee income for both spouses regardless of who may die first. Often, the couple might reason that living expenses will be less upon the death of one of the spouses. The couple might select a reduced payout for the survivor. "Joint and two-thirds survivor" payouts reduce the survivor's income to two-thirds of the original joint income; "joint and one-half survivor" plans reduce the survivor's payout to one-half of the original joint income. The advantage of these reduced survivor payouts is that the joint payouts, while both annuitants are alive, will be higher. Put another way, the larger the guarantee to the survivor, the smaller the joint payout when both are alive.


Payments are paid periodically over two annuitants' lifetimes. Upon the death of the first annuitant, payments continue for the rest of the survivor's life, then stop. Payments to the survivor can be the same or less than the payments to the joint annuitants. By selecting smaller survivor payments the joint payments will be larger.

## Annuities for a Specific Period

While lifetime annuities are a preferred method for paying out benefits, annuities can be structured for a specific number of years, rather than a lifetime. Indeed, this is how our discussion of annuity began. Structured settlements (legal judgments payable over time) and lottery prizes are examples of an "annuity for a period certain". Any period is possible, with terms of 10,15 or 20 years being common. At the end of the specified term, payments cease.

While it may seem obvious, contractholders who do not have a life expectancy may not select a lifetime payout. Contractholders such as corporations and charities must select an "annuity for a specific period".

Representative samples of annuity payout schedules are shown on page 13

## How does the annuity company invest the funds in the contract?

Annuities can also be defined according to their investment configuration, which affects the income benefits they pay. Two major classifications are fixed annuities, which provide a fixed, guaranteed accumulation or payout, and variable annuities, which attempt to offset inflation by providing a benefit linked to a variable underlying investment account. A third option, equity-indexed annuities, is fairly new but has become quite popular. Equity-indexed annuities combine features of fixed and variable annuities.

## Fixed Annuities

Fixed annuities provide a guaranteed minimum rate of return. The contractholder's contributions into the contract are placed in the general assets of the annuity company - which invests these payments in conservative, long-term securities (typically bonds). This allows the company to credit a steady interest rate to the annuity contract. The interest payable for any given year is declared in advance by the insurer and is guaranteed to be no less than a minimum specified in the contract. So a fixed annuity has two interest rates: a minimum guaranteed rate and a current rate.

## Current Interest Rate

Each annuity company credits the fixed contract with the current rate on a regular schedule, typically each year, but that rate cannot be less than the minimum guaranteed rate. Some contracts guarantee a rate of interest (higher than the minimum rate) for the first years of the contract, after which the current declared rate applies. There are four basic methods annuity companies use to apply the current interest rate to the contract:

Portfolio Method. This is the most straightforward method - all contracts are credited with the same declared rate regardless of when the contractholder paid the premium into the contract. (New contracts that have a guaranteed rate will, of course, credit interest at the guaranteed rate during the guarantee period.)

New Money Method. This method, sometimes called the "pocket of money" method, takes into account the timing of the premium payments. The company will declare an interest rate for the year and all contributions made during that year will be credited with that rate in the future. So a contract may be credited various interest rates depending on when the contractholder made contributions. For example, premiums contributed during calendar year 2007 will earn $3.65 \%, 2008$ contributions earn $3.78 \%$, 2009 contributions earn $3.57 \%$, etc.

Sliding Scale Method. This method credits interest based on the size of the cash value in the annuity - larger balances earn higher rates of interest. For example, the company may declare a current rate of $4.25 \%$ for the first $\$ 50,000$ of cash value, $4.50 \%$ for the next $\$ 50,000$ and $4.60 \%$ for cash value in excess of $\$ 100,000$. Given the fixed costs of administering annuity contracts, smaller contracts are less profitable for the company, and this method takes that into account.

Tiered Interest Rate Method. This method credits different rates of interest depending on whether the contractholder eventually annuitizes the account or surrenders the contract. In these contracts, two different values are disclosed to contractholders annually - the annuity value and the cash (or contract) value. A higher rate of interest is created in the calculation of the annuity value; a lower declared rate is applies to the cash value. If the contract is eventually annuitized, the annuity payments are based on the higher annuity value. If the contract is surrendered, the contractholder receives the lower cash value. The annuity company will continue to profit from a contract that has been annuitized; that profit opportunity evaporates if the contractholder surrenders the contract hence the company's incentive to encourage annuitization.

Companies will declare a current rate of interest each year (or another period set forth in the contract). To a certain extent, the term "current rate" is misleading. The rate is not necessarily tied to current market conditions, nor does the company pledge to do so. "Renewal rate" is perhaps a better label. Each "renewal" rate is entirely at the discretion of the company (subject to the minimum guaranteed rate). Some companies declare very competitive renewal rates; others do not. While there is no accurate predictor of how competitive a company's future rates will be, advisors should review each company's history of interest rate renewals. Some companies in the past have offered special, introductory rates of interest - but as soon as the guarantee period ends, the contractholder find the contract pays little more than the contract's guaranteed minimum rate. There are independent sources advisors can use to ferret out the "bait-and-switch" companies, including A.M. Best (ambest.com). It is important to note that, in practice, companies rarely credit rates higher than their initial rate. The initial rates that companies offer (which are a key aspect in marketing annuities) will change as market conditions change - but once the contract is established, most companies do not base renewal rates on market conditions.

Some fixed deferred annuities offer a "bail-out" rate. If the renewal rate drops below the bail-out rate, the company will waive any surrender charges - this allows the contractholder to bail out of his annuity position and find other higher-yielding investments without paying a contract penalty. (Surrender charges and other contract costs are discussed below) Another variation is the so-called "CD Annuity". The type of contract guarantees its initial rate of interest during the surrender charge period (typically the first six years of the contract, or less). Designed as an alternative to bank certificates of deposit, a CD Annuity has a fixed rate of return for a number of years that is tax -deferred and no surrender charges, if held to "maturity". (For deferred annuity holders under age $591 / 2$, there may be a tax penalty for bailing out of the annuity, or if the holder of a CD Annuity is under age $591 / 2$ at "maturity".)

One popular policy feature available in some deferred annuities is the "bonus" interest rate. This is a rate credited over and above the current renewal rate for deposits made in the first year or first few years of the contract. The bonus interest is immediately vested with the contractholder, that is, there are no strings attached to the extra interest. Companies use the bonus to encourage additional premium contributions to the contract. While bonus interest sounds good, this incentive comes at a cost. Surrender charges on bonus contracts may be higher, interest rate guarantees may be lower or a less advantageous interest crediting method might used - as always, there are no free lunches. Some companies use the same principle to encourage annuitization (vs. surrender or withdrawals), extra interest is credited to the contract if it is annuitized.

When the contract is annuitized, a fixed annuity provides guaranteed income payments of a fixed amount based on the payout method selected by the contractholder. The contract will usually display possible payout in terms of dollars per $\$ 1,000$ of accumulated value. For example, an annuity promises a 65 -year annuitant lifetime monthly payments of $\$ 5.06$ per $\$ 1,000$ of value. At age 65 the contractowner chooses to annuitize the account when the annuity had accumulated to $\$ 100,000$. The annuitant will receive $\$ 506$ per month for the rest of his life. This fixed amount is based on an interest rate that is fixed and guaranteed at the point of annuitization. As mentioned above, the contract will initially show minimum payout rates for the various payout options. In the case of deferred annuities, the company may be able to offer higher payout rates at the time of annuitization based on a higher interest rate environment at that time.

The following shows representative samples of annuity payout tables.

|  | PAYMENTS FOR SPECIFIED NUMBER OF YEARS <br> payments per \$1,000 <br> based on interest at $\mathbf{3}^{1 / 2 \%}$ per year |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| YEARS | ANNUAL | SEMI-ANNUAL | QUARTERLY | MONTHLY |  |  |
| $\mathbf{5}$ | 213.99 | 107.92 | 54.19 | 18.12 |  |  |
| $\mathbf{1 0}$ | 116.18 | 58.59 | 29.42 | 9.83 |  |  |
| $\mathbf{1 5}$ | 83.89 | 42.31 | 21.24 | 7.10 |  |  |
| $\mathbf{2 0}$ | 67.98 | 34.28 | 17.22 | 5.75 |  |  |
| $\mathbf{2 5}$ | 58.62 | 29.56 | 14.86 | 4.96 |  |  |
| $\mathbf{3 0}$ | 52.53 | 26.43 | 13.30 | 4.45 |  |  |


| MONTHLY LIFETIME PAYMENTS <br> payments per $\$ 1,000$ based on interest at $31 / 2 \%$ per year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | LIFE ANNUITY WITH |  |  |
| AGE | LIFE ANNUITY | INSTALLMENT REFUND | $\begin{aligned} & 5 \text { YEAR } \\ & \text { CERTAIN } \end{aligned}$ | 10 YEAR CERTAIN | 15 YEAR CERTAIN |
| 10 | 3.14 | 3.13 | 3.14 | 3.14 | 3.14 |
| 20 | 3.26 | 3.25 | 3.26 | 3.26 | 3.25 |
| 30 | 3.44 | 3.33 | 3.34 | 3.34 | 3.33 |
| 40 | 3.73 | 3.69 | 3.73 | 3.72 | 3.70 |
| 50 | 4.19 | 4.10 | 4.19 | 4.17 | 4.10 |
| 60 | 4.98 | 4.75 | 4.96 | 4.90 | 4.66 |
| 61 | 5.09 | 4.83 | 5.07 | 5.00 | 4.73 |
| 62 | 5.20 | 4.92 | 5.18 | 5.10 | 4.79 |
| 63 | 5.32 | 5.02 | 5.30 | 5.21 | 4.86 |
| 64 | 5.46 | 5.12 | 5.42 | 5.33 | 4.93 |
| 65 | 5.60 | 5.22 | 5.56 | 5.44 | 4.99 |
| 66 | 5.74 | 5.33 | 5.70 | 5.57 | 5.06 |
| 67 | 5.90 | 5.45 | 5.85 | 5.70 | 5.12 |
| 68 | 6.07 | 5.57 | 6.02 | 5.84 | 5.18 |
| 69 | 6.26 | 5.70 | 6.19 | 5.98 | 5.24 |
| 70 | 6.45 | 5.84 | 6.37 | 6.13 | 5.30 |
| 75 | 7.68 | 6.65 | 7.48 | 6.97 | 5.53 |
| 80 | 9.43 | 7.71 | 8.98 | 7.87 | 5.67 |


|  | JOINT AND FULL SURVIVOR monthly payments per $\$ 1,000$ based on interest at $31 / 2 \%$ per year |  |  |  |  |  |  |  | JOINT AND ONE-HALF SURVIVOR <br> monthly payments per $\$ 1,000$ based on interest at $31 / 2 \%$ per year |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | DER A |  |  |  |  |  |  |  | DER |  |  |  |
|  | 50 | 55 | 60 | 65 | 70 | 75 | 80 |  | 50 | 55 | 60 | 65 | 70 | 75 | 80 |
| 50 | 3.70 | 3.77 | 3.82 | 3.86 | 3.89 | 3.91 | 3.93 | 50 | 4.22 | 4.29 | 4.60 | 4.85 | 5.14 | 5.47 | 5.83 |
| 55 |  | 3.92 | 4.01 | 4.08 | 4.14 | 4.17 | 4.20 | 55 |  | 4.56 | 4.79 | 5.06 | 5.38 | 5.74 | 6.13 |
| 60 |  |  | 4.22 | 4.34 | 4.43 | 4.50 | 4.54 | 60 |  |  | 5.02 | 5.32 | 5.68 | 6.09 | 6.52 |
| 65 |  |  |  | 4.61 | 4.77 | 4.90 | 4.98 | 65 |  |  |  | 5.65 | 6.05 | 6.51 | 7.02 |
| 70 |  |  |  |  | 5.16 | 5.38 | 5.54 | 70 |  |  |  |  | 6.52 | 7.05 | 7.65 |
| 75 |  |  |  |  |  | 5.92 | 6.23 | 75 |  |  |  |  |  | 7.75 | 8.48 |
| 80 |  |  |  |  |  |  | 7.00 | 80 |  |  |  |  |  |  | 9.52 |

## Variable Annuities

From the contract owner's point of view, the accumulation of funds in a fixed annuity is certain and the contract owner's principal is secure. The annuity company bears the investment risk. Because fixed annuities provide a specified benefit payable for life (or any other period the annuitant desires), they offer security and financial peace of mind. However, since the benefit amount is fixed, annuitants may see the purchasing power of their income payments decline over the years due to inflation. For investors concerned with inflation (or purchasing power) risk, variable annuities might be preferable.

Inflation poses a real threat to those relying on a fixed income. Even relatively modest rates of inflation can seriously erode the purchasing power of those fixed income payments - for example, at $4 \%$ inflation, prices will double in less than 20 years. What once might have seemed an adequate retirement income, may no longer maintain an adequate standard of living. In the early 1950s, an association representing teachers reviewed the fixed annuity assumptions of their pension planand to address inflation risk, they developed the concept of a variable annuity.

Variable annuities shift the investment risk from the insurer to the contract owner. If the investments supporting the contract perform well (as in a "bull market"), the owner will probably realize investment growth that exceeds what is possible in a fixed annuity. However, the lack of an investment guarantee means that the variable annuity owner can see the value of his or her annuity decrease in a depressed market or in an economic recession.

## Separate Account

The distinguishing feature of a variable annuity is the "separate account", also called the "subaccount". The contractholder's premium contributions are credited to a separate investment account - not the annuity company's general account. Historically, separate accounts invested in securities designed to protect against inflation, primarily common stocks. Today, most annuity companies offer a variety of investment options ranging from money market funds to real estatebacked securities. (Most contracts also offer the variable contractholder a "fixed" investment alternative, which mimics the guaranteed interest rate of a fixed annuity.) Some companies offer only "proprietary" separate accounts, that is, accounts managed by their in-house investment advisors; other companies employ outside money managers, often the same managers that offer mutual funds to the public. Contractholders may choose to diversify their investments by directing their premiums into a variety of separate accounts and many companies offer services to periodically reallocate investments within the separate accounts to maintain desired investment balance. The contract owner may also decide to change investments from one separate account to another at little or no cost as market conditions change. During the accumulation period, the value of the contract will vary according to the investment results in the separate account(s). When the contract is annuitized, and annuity payments begin, the size of those payments will also be based on the investment results of the separate account. This exposes the annuitant to investment risk. Variable annuity payments are subject to changing market conditions - but that was the intent of variable annuities in the first place.

Equity investments, such as common stocks, represent shares of business ownership, and they tend to change in value with changing economic conditions. The market price of a stock is set in the marketplace by willing buyers and sellers - based on forecasts of the company's earnings, dividends and future growth. If the company prospers, its shares of common stock will increase in value; if the company does not prosper, its shares will generally decrease in value and may even become worthless. This contrasts with debt instruments, such as bonds, which carry fixed rate of return on investment. The value of a bond depends more on its interest rate relative to other debt obligations than on the growth of the issuing company. Bonds also have a fixed maturity date on which the principal amount will be repaid. The anticipation of eventual repayment tends to keep bond prices more stable than stock prices. But bonds are also very susceptible to inflation risk.

There are no guarantees that common stock prices will keep pace with inflation, but in general, over long periods of time, that has been the trend. It is important to note that in the long term, stock prices tend to keep pace with general price levels, but this is not necessarily the case in the short-term. No investment, including a variable annuity, is a perfect inflation hedge during all economic periods.

## Regulation of Variable Annuities

Variable annuities are based on non-guaranteed equity investments, such as common stocks. When first introduced, the Securities and Exchange Commission (SEC) asserted control over these products as "securities" - and the Supreme Court concurred. So variable annuities are subject to dual regulation: at the state level as an insurance product, and at the federal level as a security. In Florida, companies issuing annuities, fixed or variable, fall under the jurisdiction of the Office of Insurance Regulation. One requirement of the Office is that investments in a variable annuity's separate account must have a "readily determinable value" - that is, they are marketable securities. Insurance companies wishing to operate a separate account must register the account with the SEC as an "open end investment company" under the Investment Company Act of 1940. Mutual funds are also registered under this federal law, and it is convenient to think of separate accounts as mutual funds. In fact, many annuity companies now use the investment expertise of mutual funds to manage the assets in their separate accounts. Under federal law, a prospectus - a document explaining the details of the investment - must accompany all sales of mutual funds, variable insurance and variable annuities.

To sell variable insurance products, an individual must hold a life insurance/variable annuity license granted by state authority and a registered representative's license granted by FINRA (Financial Industry Regulatory Authority, the successor to the NASD). Some states may also require a special variable insurance license or special addendum to the regular life insurance license. In Florida, agents who have fully satisfied the requirements for a life insurance license, including successful completion of a licensing exam that covers variable annuities, may sell or solicit variable annuity contracts. Since 1990, the Florida life agent examination has included variable annuities. Life agents who were licensed prior to 1990 did not automatically obtain the variable annuity license. For these agents, or agents who have let their variable annuity license lapse, there is a separate variable annuity examination. In Florida, a variable annuity license does not exist by itself - a variable annuity license is valid only if the agent is also a holds a valid life insurance agent license.

## Annuity Basics

To accommodate the variable concept, a new means of accounting for both annuity payments and annuity income was required. The result is the accumulation unit, which pertains to the accumulation period, and the annuity unit, which pertains to the income payout period.

## Accumulation Units

During the accumulation period of a variable annuity, contributions made by the investor (less a deduction for expenses) are converted into accumulation units and credited to the selected separate account. Each additional contribution will purchase more accumulation units.

The value of each accumulation unit varies, depending on the value of the underlying portfolio of stocks. In this way, accumulation units are similar, but not identical, to shares of a mutual fund.

For example, assume that the accumulation unit is initially valued at $\$ 8$, and the holder of a variable annuity makes a payment of $\$ 200$. This means she has purchased 25 accumulation units. Six months later, she makes another payment of $\$ 200$, but during that time, the underlying stocks have appreciated and the value of the accumulation unit is now $\$ 10$. This means that the $\$ 200$ payment will now purchase 20 accumulation units.

One popular investment strategy, known as dollar cost averaging, applies to periodic investments of the same dollar amount - which is very common in the case of flexible premium deferred annuities. By investing the same dollar amount periodically, the investor will purchase more units when the price is down, and fewer units when the price is high. As a result, more units are purchased at lower costs, and at the end of the investment period, the average cost of the units acquired will be lower than the average price of the units over that period of time. Using the example above, the investor purchased 25 units at $\$ 8$, and 20 units at $\$ 10$. The average price of the units is $\$ 9$ ( $\$ 8+\$ 10$ / 2). She purchased 45 units for $\$ 400$, so her average cost is only $\$ 8.89$ ( $\$ 400 / 45$ ). Contractholders can take advantage of dollar cost averaging by making equal investments periodically, and many variable annuity contracts offer investors an "automatic" dollar cost averaging program. In these automatic programs, the contractholder places a lump sum in the contract's fixed account and each month the company will transfer a fixed amount to the separate investment account(s) selected by the contractholder. Over the course of six to twelve months the entire premium will be invested in the separate account so as to average out the cost of the shares purchased over that period.

The current value of one accumulation unit is found each business day by dividing the total value of the company's separate account by the total number of accumulation units outstanding. Thus, if a company had $\$ 200$ million in its separate account, and a total of 20 million accumulation units outstanding, the value of one accumulation unit would be $\$ 10$. As the value of the investment portfolio rises and falls, the value of each accumulation unit also rises and falls. [Mutual funds calculate their share prices, or NAV (net asset value) daily using a similar formula. It is important to note some differences, however, between accumulation unit prices and mutual fund NAVs. Mutual funds must distribute accumulated dividends and realized capital gains to their shareholders periodically, and mutual fund NAVs are reduced when these distributions are made. If the investor chooses to reinvest the distributions, the investor acquires more shares (valued at a lower NAV). In a variable annuity, those accumulated profits are automatically retained in the unit price - so the investor continues to hold the same number of units, but those units will have a higher value. Variable annuity holders do not have a choice of taking the distribution in cash.]

Many annuity companies offer a "family of separate accounts", that is a collection of portfolios with varying investment objectives, e.g., conservative growth, aggressive growth, balanced, etc. During the accumulation period, the contractholder may switch among the various accounts or allocate the premium to be invested in more than one account. This allows the contractholder flexibility to adjust his or her investments as market or personal conditions change.

## Annuity Units

When the investor decides it is time for the variable annuity benefits to be pay out in monthly income payments, the accumulation units in the participant's individual account are converted into annuity units - or the contract is said to be "annuitized". At that time, the annuity company calculates the number of annuity units for that contractholder. From then on, the number of annuity units remains the same for that annuitant. The value of one annuity unit, however, can and does vary from month to month, depending on investment results.

When computing the number of annuity units, the annuity company considers the accumulated value of the account (total number of accumulation units multiplied by the current value of one accumulation unit). The company then takes into account the annuitant's age and the method of payout the annuitant selects. (Variable contractholders have the same payout options as fixed annuities: straight life, period certain, joint and survivor, etc. There is one slight difference in terminology - instead of cash refund option; variable annuities offer a unit refund payout.) Using tables similar to those for a fixed annuity, the company determines the size of the initial monthly payment. Then it converts that amount into annuity units by dividing the initial monthly payment by the value of one annuity unit.

Continuing our earlier example, let's assume that our contractholder has purchased 10,000 accumulation units in her account by the time she is ready to retire at age 55 . The value of one accumulation unit has grown to $\$ 25$, so the value of the account is $\$ 250,000$. She selects a joint-full survivor annuity covering her and her 65 -year old husband. Based on their ages, the annuity company uses tables to find that she is entitled to $\$ 4.08$ in monthly payments for every $\$ 1,000$ of accumulated value. Her initial monthly check will be for $\$ 1,020.00$ ( $\$ 4.08 \times 250$ "thousands"). The annuity company will convert that value into annuity units. Assume that an annuity unit at that time is worth $\$ 10$. The $\$ 1,020$ payment is converted into 102 annuity units ( $\$ 1,020$ divided by $\$ 10$ ). That number is fixed for the rest of their lives - it will not change. What does change is the value of the annuity units, depending on the investments in the underlying separate account. For example, if the annuity unit were to grow to $\$ 11$, her monthly check would grow too - to $\$ 1,122$ (102 units at $\$ 11$ ).

Each variable annuity contract will have an assumed interest rate (AIR). The varying value of annuity units depends on how the investment results in the separate account compare with that assumed interest rate. If the growth in the account equals the AIR, the value of an annuity unit will not change. If the investments in the separate account do better than the AIR, the value of the annuity unit will grow. If investment results lag the AIR, the value of the annuity unit will fall. Please note: the assumed interest rate in a variable contract is a threshold against which to compare investment results in the separate account - it is not a guaranteed rate of return.

Each variable annuity contract will outline the formula used to determine annuity unit values. Some contracts may rely solely on investment experience only (how the portfolio performed versus the AIR), while formulas in other contracts may reflect mortality and expense experience too.


## Equity Indexed Annuities

Equity indexed annuities (EIAs) or equity indexed contracts (EICs) - relatively new entries to the annuity market - are a type of fixed annuity that offer the potential for higher credited rates of return than their traditional counterparts but also guarantee the owner's principal. The interest credited to an EIA is tied to increases in a specific equity or stock index (the most commonly used index for this purpose is the Standard \& Poor's 500 Composite Stock Price Index). Underlying the contract for the duration of its term is a minimum guaranteed rate, usually 3 or 4 percent, so a certain rate of growth is guaranteed. When increases in the index produce gains that are greater than the minimum rate, that gain becomes the basis for the amount of interest that will be credited to the annuity. At the end of the contract's term - which is usually five to ten years - the annuity will be credited with the greater of the guaranteed minimum value or the indexed value.

Like a fixed annuity, the investments are held in the annuity company's general assets, not a separate account. But unlike fixed annuities, with a fixed rate of interest (minimum or the current rate the company declares periodically), the rate of interest credited to an EIC is the greater of a minimum rate or the gain on a specified index (usually the S\&P 500). In other words, the rate is based on a predetermined formula, rather than the rate the annuity company chooses to pay. Another key difference is that all EICs have a stated term or duration; other types of annuities do not.

## Indexing methods

The interest rates credited to equity indexed annuities are based on changes to the underlying index. But just how are those changes measured? Each contract will spell out in (sometimes confusing) detail, how the index's performance translates into the interest rate paid on the EIC. There are several ways an equity-indexed contract may measure gains and losses in the underlying index and these can be classified into two broad categories: the annual reset method or a point-to-point method.

In the point-to-point method, the contract looks at the total change between the starting value of the index and the value of the index at the end of the contract's term. Typically, the ending value of the index is divided by the starting value (minus 1 ) to reveal the rate of gain. For example, assume the starting value of the S\&P 500 is 1,300 and the ending value is 1,690 . This represents a $30 \%$ increase ( $1,690 / 1,300=1.30$, then subtract 1.00 for an overall gain of 0.30 or $30 \%$ ). The annuity's cash value will reflect that $30 \%$ increase. If the contractholder had invested $\$ 100,000$, the ending cash value will be $\$ 130,000$ (subject to various limitations discussed below). During the life of the annuity, the investor will not know what the overall rate of return will be - that rate can only be calculated at the end of the annuity's term. Also note, that variations in the index during the life of the annuity are immaterial, only the ending value is relevant to the calculation.

In contrast, the annual reset method takes into account annual performance. The value of the index is reviewed on each anniversary date (or other date specified in the contract). If the index's value is higher on the next anniversary, that positive return is credited to the annuity's cash value. An essential characteristic of the annual reset method is that losses in the index's value are ignored. If the index movement in any year is negative, the contract treats the return as zero and credits nothing to the cash value. For this reason, the annual reset method is sometimes called the ratchet method - changes only occur during positive periods, i.e., the cash value only "ratchets up". Since the annual reset methods looks at results from year to year, gains can be credited, even if the index's current value is less than its starting value. For example, assume the index's starting value is 1,300 . At the end of year 1 the index is 1,430 , representing a $10 \%$ increase. A $\$ 100,000$ investment will be credited with that $10 \%$ gain; the cash value will be $\$ 110,000$ at the end of year 1 . Suppose at the end of year 2 , the value drops to 1,350 . The negative results will be ignored, and the cash value remains at $\$ 110,000$. The bear market continues in year 3 and the index drops to 1,250. Again, this loss does not affect the cash value, which remains at $\$ 110,000$. In year 4 , the index rebounds a little to 1,275 . This 25 -point movement represents a $2 \%$ increase over the previous anniversary value $(1,275 / 1,250=1.02$, minus 1.00 , equals 0.02 or $2 \%$ ). So cash value will increase by $2 \%$ from $\$ 110,000$ to $\$ 112,200(\$ 110.000 \times 102 \%)$. Please note that the contract's cash value increases in year 4 , even though the index itself is below its starting value ( 1,275 vs. 1,300 ).

There can be considerable variation in how each contract's indexing method is applied. For example, many point-to-point contracts include a "high water mark" provision. With this provision, the company will look at the value of the index at certain times during the contract's life, for example on each anniversary date, and the index's highest value on those dates will determine the gain to be credited to the contract. This protects investors from a significant decline in the index in the later years of the contract's life. While the overall gain will not be credited until the end of the contract's term, the gain will be based on the highest value of the index (as of the specified dates), not simply the ending value. Another way some contracts protect the annuity owner from severe declines in the index is to average index values over time, rather than selecting a single value at a specific point in time. For example, a contract using the annual reset method may rely on each year's average value, rather than the index value on the anniversary date. A point-to-point contract may average the index's value for the final year to measure the gain rather than the value on the ending date. Most EICs use some form of averaging. Averaging has the effect of "driving numbers to the middle" - it prevents the investor from being locked into the lowest index point of the year, but it also guarantees that the investor will never hit the highest point.

## Equity Indexed Annuities versus Index Mutual Funds

At first sight, an annual reset EIC, with its ratchet affect, may appear to always outperform the index. In the bear market example above, an investment in a basket of stocks that mirror the S\&P 500's weighting would have experienced a loss, from an initial value of 1,300 to 1,275 at the end of four years. By comparison, the cash value in the annual reset annuity saw an increase from $\$ 100,000$ to $\$ 112,200$. But that simple analysis overlooks some key differences. Investors in a portfolio of the S\&P's stocks would receive dividends from their investments. So would investors in an indexed mutual fund or exchange traded fund such as SPDRs®. Those dividends are not factored into most EIC valuations. Put another way, the index measures only changes in the underlying stocks' prices, not the total return (capital appreciation + dividends) of an "indexed" portfolio. Cash values in annual reset annuities tend to outperform the index in periods of high market volatility, but may ignore part of the return available from an investment in the underlying stocks. Historically, dividends account for approximately $1 / 3$ of a stock portfolio's total return. [Standard \& Poor's does calculate a "total return" index related to the S\&P 500, to include dividend payments - and this is commonly used to compare mutual fund or other investment performance to the general stock market. Most EICs use the "regular", i.e., no-dividend S\&P 500, not the "total return 500" index. Obviously, it is important for financial advisors to know which index the contract uses.]

## "Moving Parts"

Adding to the complexity of equity indexed annuities are various limitations on how the index's gains and losses are translated into changes in the contract's cash values. These limitations are referred to as the "moving parts" of the annuity. Each contract will have its own unique set of moving parts, and it is important for financial advisors to be aware of how these work, and how they interact with each other. Small variations in these provisions can significantly affect the overall return the annuity owner will actually receive.

One common limitation is a "participation rate". This is the percentage of change in the underlying index that is credited to the annuity. For example, a contract with a participation rate of $80 \%$ would see the contract credited with $80 \%$ of the change in the underlying index. If the index were to gain $15 \%$ in value, the contract would credit the account with an $12 \%$ gain $(80 \%$ of $15 \%$, not the full $15 \%$ ); if the index went up only $7 \%$, the contract would be credited with $5.6 \%$ ( $80 \%$ of $7 \%$ ). Some contracts offer "full participation" meaning that $100 \%$ of the index's gain is credited to the contract. Annuity companies hedge the sale of EICs by purchasing indexed equity options - this allows them to guarantee the investment within the contract. The participation adjustment is one method annuity companies use to cover the cost of those equity options. The participation rate may be fixed for a period of time, e.g., for the first year, the first few years, or the duration of the contract; while other contracts may allow the company to change the participation rate at its discretion. Some contracts guarantee that its participation rate will never drop below a stated level; others do not. Obviously, a higher participation rate favors investors (all other factors being equal).

A variation on the participation theme is the "yield spread". Instead of applying a percentage reduction, a yield spread subtracts a fixed annual amount from the indexed rate of return. For example, if the annual growth in index in an annual reset contract was $10 \%$ and the contract had a $3 \%$ yield spread, the investor will be credited with only a $7 \%$ gain $(10 \%-3 \%)$. The spread relates to annual rates of return - so in the case of multi-year, point-to-point contracts, the overall gain in the index over the duration of the contract must be annualized before deducting the yield spread.
"Caps" are another way for the annuity company to limit the amount of gain credited to an EIC. Caps are simply a maximum amount that can be credited, regardless of how well the index may do in a bull market. Annuity companies use the cap in bull markets to offset the fact that index losses are ignored in bear markets. Caps may be linked to the index's results (index cap) or linked to the amount that will be credited to the contract (interest rate cap).

For example, an annual reset EIC has a participation rate of $80 \%$ and an index cap of $12 \%$. This means that only the first $12 \%$ of any year's gain in the index will be considered in calculating the amount credited to the cash value. If the index increased by $10 \%$, the whole index gain will be used ( $10 \%$ is below the index cap) - and with the $80 \%$ participation rate, the contract would be credited with an $8 \%$. If the index gained $20 \%$ this year, only $12 \%$ (the capped amount) would be used - and that would be further reduced by the participation rate to $9.6 \%$ ( $80 \%$ of $12 \%$ ).

In an interest rate cap, the cap relates to the amount of gain being credited to the contract. Using the same example but changing to an interest rate cap, a $20 \%$ increase in the index would be subjected to the $80 \%$ participation rate, or $16 \%$, which exceeds the $12 \%$ cap - so the contract would credit $12 \%$ (vs. $9.6 \%$ under the index cap).

A similar process is used if the contract uses a yield spread instead of a participation rate. If the contract had a $3 \%$ yield spread and $12 \%$ index cap, a $20 \%$ gain in the index would result in $9 \%$ credited to the account ( $20 \%$ gain subject to the $12 \%$ cap; $12 \%$ maximum index change less $3 \%$ yield spread $=9 \%$ actually credited). If this had been an interest rate cap instead, the investor would have been credited with $12 \%$ ( $20 \%$ index gain less $3 \%$ yield spread or $17 \%$; subject to a $12 \%$ maximum under the cap).

As you can see from these examples, there is a complex interaction among a contract's moving parts. What one facet of the contract may offer to the investor can be counterbalanced by another feature. Each contract will have its own unique set of provisions. Before recommending any EIC, financial advisors should be fully aware of the details of that particular contract. Generally speaking, a contract with caps will allow the annuity company to offer higher participation rates, or lower yield spreads, as the cap limits the company's risk. There are no hard and fast rules to determine whether one contract's set of moving parts are better than another's.

For example, if a contract with a $10 \%$ index cap and $80 \%$ participation (which allows a maximum credit to the contract of $8 \%,[80 \%$ of $10 \%]$ ) is not as good as a $9 \%$ index cap with a $90 \%$ participation rate (which allow a maximum credit of $8.1 \%$ [ $90 \%$ of $9 \%]$ ). EICs are complex investment vehicles and, as always, the "devil is in the details".

The primary purpose of an equity index annuity is accumulation. Unlike other annuity contracts, an equity indexed contract has a 'maturity' date. At the end of the contract period, the accumulated value can be taken lump sum or in the form of annuity payments.

It is easy to understand why equity indexed annuities have become popular. They offer potential for market-linked rates of return with a guarantee that the owner's principal is protected. In this way, EIAs bridge the gap between traditional guaranteed fixed annuities (which are subject to inflation risk) and variable annuities (which are subject to market risk). With an EIA, individuals who
do not want to risk principal can still receive market-based earnings, which are likely to be higher than those offered by traditional fixed products.

Some contracts offer multiple indexes (indices) simultaneously. Often, the contract will offer a combination of indexed and declared-rate funds, so-called "cash value strategies" contracts. The insurer, as part of the contract, may automatically allocate premiums to the different indices, or it may be left to the discretion of the contract owner. Some allow the allocation to be changed after issue, and often operate similarly to variable contracts with multiple investment choices, but unlike variable annuities, EIAs are set up in the general account (i.e., without a separate account).

## Death Benefits in Annuity Contracts

One commonly overlooked aspect of annuities is the guaranteed death benefit they offer. As discussed above, when the contract is annuitized (i.e., changes from the accumulation phase to the annuity phase) the contractholder may select a number of different payout options. With the exception of the straight life payout, all of the lifetime payout options include provide for continuing annuity payments (in the case of cash or unit refunds, a lump sum) to a designated beneficiary.

But what happens if the annuitant dies during the accumulation phase? All annuities provide for payment of the annuity's accumulated value to a beneficiary. In the case of fixed annuities, the amount payable to the beneficiary is simply the premium payments paid into the contract plus the interest credited to the contract, less any withdrawals the contractholder may have taken. In a fixed annuity, the beneficiary simply receives the "current value" of the contract.

In the case of variable annuities, the basic death benefit is the greater of the owner's investment in the contract (less any withdrawals) or the current value of the sub-account(s). Remember that in a variable annuity the value of the account is based on investments in the separate (or sub) account, and this value may go up or down. The basic death benefit of a variable annuity guarantees that a beneficiary will receive, at a minimum, the monies invested in the account - and could receive far more, if the sub-account values increased. This is a comforting feature for investors wishing to conserve the principal they may leave to their heirs. (It also explains why, in a bear market, investors are more likely to liquidate shares of mutual funds that do not have a death benefit feature, rather than variable annuity contracts that do provide this added measure of protection.) Some variable annuity contracts offer the investor the option of purchasing enhanced death benefits (these are discussed below).

The death benefit feature of an equity indexed annuity is less clear. Some contracts will provide beneficiaries with return of the full investment plus whatever interest has been credited to the contract to date; others will return the investment plus the minimum guaranteed rate (but not the higher index rate). Each EIC is different, so it is important to read the fine print carefully.

Most annuity contracts, in the event of death, will waive any surrender charges that may apply. It is important to note that in all annuities - fixed, indexed, or variable - the minimum death benefit is designed to simply conserve the initial investment for beneficiaries. In this way annuities do afford some protection for beneficiaries, but if the goal is to maximize the amount left to beneficiaries, life insurance, not annuities, offer the greatest protection.

The tax treatment of annuity death benefits depends on a number of factors - whether the death benefits are triggered by the death of the contractholder or the annuitant, how the benefit is paid to the beneficiary, the relationship of the beneficiary to the deceased, and whether the beneficiary is a "natural person". These factors, and their implications, will be explored in greater detail in later chapters.

Remember, the guaranteed minimum death benefits are payable only if death occurs during the accumulation phase. Once the contract is annuitized, payments will continue according to the method selected by the contractholder (which may or may not include eventual payments to a beneficiary, depending on the selected payout option.)

## Optional Variable Annuity Riders

Many commentators liken the marketplace for annuities to an "arms race", in which each company tries to gain an advantage on their competitors. Annuity companies compete vigorously for business and a significant part of that competition has been in the area of product design. As we saw in the case of EIAs, companies mix-and-match various "moving parts" and indexing methods to differentiate their products from the competition. Companies selling variable annuities use optional riders to enhance their products. Once one company designs a new rider, others respond by introducing new options of their own. All of this creative effort to one-up each other does widen the range of financial planning tools available to consumers. But these optional riders come at a cost - the investor pays an additional premium, of which the sales agent collects a commission. Whether the benefits offered by these riders outweigh their cost, whether customers and agents fully understand these options, and whether the additional commission encourage sales agents to make unsuitable recommendations are questions that are uppermost in regulators minds. The optional provisions available on variable annuities can be categorized as enhanced death benefits or enhanced living benefits.

## Enhanced death benefits

Traditionally, variable annuities have provided a basic death benefit equal to the greater of the current value of the subaccount or return of the initial principal. Most variable annuity contracts available today offer more liberal death benefit guarantees, though these enhanced death benefits are available only at an extra cost - either by charging an additional premium or by building the cost into the base contract's underlying fees. While each contract's terms will be different, the enhanced death benefits in most variable annuity contracts pay the survivors the highest of:

- total contributions (less any withdrawals)
- the current cash value of the subaccount(s)
- the highest cash value as of stated prior dates (such as "prior policy anniversary dates", or the values on specific anniversary dates such as 5 th, 10 th, 15 th, etc.) up to a maximum age (usually 85) - this is sometimes called a "ratcheted death benefit".
- total contributions (less withdrawals) plus accumulated interest at a minimum guaranteed rate, up to a maximum age.

The first two items on this list are the standard death benefits available under the basic deferred variable annuity - at no additional cost. The last two are the enhancements. A prospective purchaser must ask herself whether these two enhanced protections for her beneficiaries are worth the extra cost. Please note that all of these benefits, including the ratcheting benefit and the minimum guaranteed rate, apply only in the event of death.

As you can see from the list, withdrawals taken by the contractholder during the accumulation phase will have an impact on any minimum death benefits payable to beneficiaries. How will the contract adjust the enhanced death benefit for withdrawals? Some contracts adjust the value dollar -for-dollar, i.e., a dollar withdrawn will reduce the death benefit by a dollar. Other contracts will adjust benefits based on proportional formula. The method used by a contract will impact the ultimate value of this optional rider.

For example, assume that an investor originally invested $\$ 100,000$ in a deferred variable annuity seven years ago. Based on a ratcheting feature that looks at every 5th anniversary's value, the minimum death benefit is now $\$ 125,000$. Meanwhile the current value of the subaccounts has grown to $\$ 150,000$ today (year 7 ). What is the effect of a $\$ 15,000$ withdrawal on the contract's minimum death benefit? If the contract used dollar-for-dollar adjustments, the death benefit would drop $\$ 15,000$, from $\$ 125,000$ to $\$ 110,000$. If the contract used a proportionate reduction instead, the death benefit would drop by only $\$ 12,500$ to $\$ 112,500$ ( $\$ 15,000$ withdrawal represents $10 \%$ of the current cash value [ $\$ 15,000 / \$ 150,000$ ], a $10 \%$ reduction of the $\$ 125,000$ death benefit amounts to $\$ 12,500$ ).

In this example, the proportional method of adjustment leaves a higher remaining death benefit and that is true whenever the current cash value exceeds the minimum death benefit. A dollar-fordollar adjustment will result in a higher death benefit if the death benefit exceeds the cash value. Using the above example, assume that the withdrawal takes place next year, when the cash value is only $\$ 120,000$ (the death benefit remains ratcheted at $\$ 125,000$ ). A $\$ 15,000$ withdrawal on a dollar-for-dollar basis reduces the death benefit by $\$ 15,000$. On a proportional basis, the death benefit would be reduced by $12.5 \%$ [ $\$ 15,000 / \$ 120,000$ ] or $\$ 15,625$ [ $12.5 \%$ of $\$ 125,000$ ]. When the death benefit exceeds the cash value, the dollar-for-dollar methods results in a lesser reduction, or put another way, a higher remaining death benefit. These reductions also apply when a client chooses to make a partial exchange of this contract for a new one. The amount exchanged is treated as a withdrawal, and the death benefit adjusted accordingly.

One other important question to ask when contemplating an enhanced death benefit rider: Whose death triggers the death benefit? Most contracts are "annuitant-driven", that is, the benefits are payable upon the death of the annuitant. Others are "owner-driven", meaning the death benefits are paid if the owner dies. In most cases, this is a distinction without a difference; in most contracts the owner (investor) is also the annuitant (measuring life). But when the two are not the same, it is important that the client and the advisor know whose death will trigger the minimum death benefit under that particular contract.

## Enhanced Living Benefits

Many of the latest enhancements to variable annuities expand the range of possibilities available during the annuitant's lifetime. For this reason, they are sometimes called "living benefits". All deferred variable annuities offer a number of living benefits as part of their basic contract: availability of various investment sub-accounts, cost free transfers between the sub-accounts, dollar cost averaging and automatic rebalancing tools, as well as guaranteed minimum annuity payout factors. All of these are included in the underlying contract, at no additional cost. In addition, most companies offer three optional enhancements, for an additional premium:

- guaranteed minimum income benefit (GMIB),
- guaranteed minimum accumulation benefit (GMAB), and
- guaranteed minimum withdrawal benefit (GMWB).

Some companies require the prospect to elect the enhancement only upon the contract's issue; others permit them to be added later. Some companies will allow only one enhancement; other will permit more than one. After electing the enhancement, some companies allow the contractholder to discontinue it later (and eliminate the additional premium cost); others require the enhancement to remain in force for the life of the contract. Each contract is different, so it is important to read the fine print carefully.

## Guaranteed Minimum Income Benefit

As its name implies, the guaranteed minimum income benefit guarantees a minimum income to the annuitant regardless of adverse investment performance in the contract's separate account(s). The contract will create a "benefit base" (also known as the "income base" or "protected value") from which the minimum income payments will be calculated. The benefit base usually represents the initial investment in the contract compounding at a guaranteed rate of growth (typically 5-7\%). Some contracts adjust the benefit base using a "step up" provision. In step-up contracts, the company adjusts the benefit base upwards if cash values exceed the existing benefit base at stated intervals, usually the contract's anniversary dates,. Some contracts will use both methods - annual guaranteed growth plus a possible bonus of the step-up. Some of these contracts may apply the guaranteed rate of interest to only the initial investment in the contract, while others will apply the annual growth rate to the stepped-up values too. Regardless of how it is calculated, this benefit base does not apply to lump sum withdrawals; it is simply a value from which future minimum income payments (annuity payments) will be calculated.

The GWIB rider comes with many restrictions. Most variable annuity contracts with a GWIB provision impose a waiting period ( 7 to 10 years is common) before the provisions becomes effective. After that waiting period, the contractholder may chose to apply for the guaranteed income payments. Usually the contractowner will be required to annuitize the account under a lifetime payout method, and most contracts give the owner a short window to exercise the GWIB provision (usually 30-60 days following each anniversary date). So, the minimum guaranteed income payments will not be available for the first years of the contract; they will be available only if the contract is annuitized, and only if the contractholder elects this option during the window of opportunity. Remember that when the contract is annuitized, the contractholder loses control of the contract, and hence a lot of flexibility.

Normally, if a variable annuity contract is annuitized, the payments will be based on the current value of the underlying separate accounts. The company will apply the regular annuity payout schedules, based on the method selected by the contractholder, to determine the value of the first payment. Future payments will be based on a fixed number of annuity units whose values vary based on changes in the value of the underlying separate account.

By contrast, payments under the GMIB are typically based on a less-favorable annuity payout schedule (due to lower interest assumptions, an age setback, or both) and the company will apply that schedule to the benefit base (not the account's current cash value). For example, the company's regular monthly payout under a straight life annuity for a 65 -year old man is $\$ 5.60$ per $\$ 1,000$ of account value. If the holder annuitizes using the GMIB option, however, the company imposes a five-year age setback. This setback assumes that the 65 -year annuitant is five years younger than his real age. This adjustment spreads the payments over a longer period. Based on the company's payout schedule, the monthly payment for a 60 -year old will be only $\$ 4.98$ - and that is applied per $\$ 1,000$ of the benefit base (which may exceed the current cash value).

A traditional variable annuity payout will be based on the varying value of a fixed number of annuity units created at the time of annuitization. Some GMIB riders may allow for variable annuitization, while others require that the minimum guaranteed payments be fixed in amount.

The age adjustment or lower interest rate assumptions are indirect costs of utilizing the GMIB rider. In order for this rider to be worthwhile, the benefit base must exceed the current cash value of the separate account(s) when the account is annuitized. Put another way, this rider is of value only if the investment growth in the separate account lags behind the minimum guaranteed rate in the GMIB rider. This is the primary benefit of the rider: to be able to annuitize the account on a higher benefit base if market performance turns out to be unfavorable. This guarantees a certain income stream in the future regardless of the market's performance. If variable annuitization is allowed, the GWIB will provide a "floor", but still provide the investor an opportunity to participate in the upside potential of the separate account(s). These advantages come at a cost: there is the premium to buy the rider, and possibly less-favorable payout rates or an age setback.

Partial withdrawals from the variable annuity during the accumulation phase will impact the benefit base and consequently any future guaranteed minimum income payments. Companies may adjust the benefit base using a dollar-for-dollar method or the proportional method. These are the same two methods used to adjust the death benefits discussed above. The proportional method provides a lower reduction (more favorable to the client) if withdrawals are taken when the contract's cash value exceeds the benefit base. If the benefit base exceeds the cash value, the dollar-fordollar method is best for the client.

Obviously, there are many interdependent factors to consider when analyzing a GMIB rider. Depending on the specifics of a particular contract, the specific GMIB may or may not be worth the price.

## Guaranteed Minimum Accumulation Benefit

The guaranteed minimum accumulation benefit (GMAB) promises that the cash value of the contract will be at least a minimum amount at the end of the guarantee period, sometimes called the waiting or vesting period. In most contracts this period is usually $7-10$ years. The basic guaranteed amount in most GWABs is the initial investment (in the case of single premium contracts) or the total premiums paid during the guarantee period (in the case of flexible premium contracts). In some ways, this is similar to the death benefit guaranteed to beneficiaries discussed above. The difference is that the benefit is not triggered at an unpredictable date by death, instead it is guaranteed at a specific date during the annuitant's lifetime. In addition to this base guarantee, the GMAB rider will offer a "step up" provision. (This is a different concept than the step-up in a GMIB discussed above.) In a GMAB, the step-up provision allows the contractholder to increase the guaranteed value on stated dates, such as the contract's anniversary date. If the contractholder decides to exercise this right, a new guarantee period begins, and the stepped-up value becomes guaranteed as of the end of that new period. For example, an investor places $\$ 100,000$ in a deferred variable annuity with a 7 -year GMAB rider. This guarantees the investor that at least $\$ 100,000$ will be available to him at the end of seven years. Suppose that in year 5 , the cash value of the separate account is $\$ 145,000$ and the contractowner exercises the step up provision. The new minimum guaranteed value is now $\$ 145,000$, which is guaranteed at the end of year 12 (seven years after the step up provision was exercised).

Since this is an accumulation (not income) provision, annuitization of the contract is not a required at the end of the guarantee period or to exercise the step up provision. The guarantee puts the annuity company at risk, and many companies will restrict the types of separate accounts available for investment. Often highly volatile accounts are not available when a GMAB rider is selected, or the company may require the contractholder to select a defined model portfolio; sometimes the company will reserve the right to rebalance the investment funds or move funds from subaccounts into a contract's fixed account. A GWAB rider may prohibit withdrawals from the contract, but more often withdrawals will be permitted. The guaranteed accumulation amount will be reduced when a withdrawal is taken. The contract may use either the dollar-for-dollar or proportional methods discussed above. Or the contract may use a combination of the two, e.g., dollar-for-dollar for withdrawals not exceeding $5 \%$ of the guarantee amount, and proportional for any excess.

## Guaranteed Minimum Withdrawal Benefit

The newest of the enhanced living benefits is the guaranteed minimum withdrawal benefit (GMWB) rider, sometimes called the guaranteed partial withdrawal benefit. This rider guarantees return of principal though a series of partial withdrawals, regardless of the separate account's investment performance. The guaranteed amount is typically the greater of investor's total contributions to the contract or the cash value at the time of the first withdrawal. Most contracts will allow for annual withdrawals of up to $5-7 \%$ of the guarantee amount. For example, an investor pays a single premium of $\$ 100,000$ into a deferred variable annuity with a GMWB allowing a $5 \%$ withdrawal. The contractholder will be able to withdraw $\$ 5,000$ per year, for 20 years (at which point he will have withdrawn his entire investment), regardless of the current cash value of the separate account. If the rider allowed a $7 \%$ withdrawal, he could take $\$ 7,000$ annually for a little more than

14 years $(100 \% / 7 \%$ per year = 14.3 years), even if the cash value falls to zero. In other words, the contractholder may withdraw more than the contract is currently worth - which is what makes the GMWB valuable to the contractholder. If on the other hand, the cash value increases over the contract's life, the contractholder would be able to take withdrawals from that growing value, so the GMWB rider would provide no additional benefit to the owner. After each withdrawal, the remaining guaranteed value is reduced dollar-for-dollar. In the example above, if the contractholder withdrew $\$ 5,000$ per year, the guaranteed value would drop to $\$ 95,000$ after the first withdrawal, $\$ 90,000$ after the second withdrawal, then $\$ 85,000, \$ 80,000$, etc., until it reached 0 after the 20th withdrawal.

At first blush, this rider seems to duplicate the annuity phase of the basic contract - the company pays out a series of payments over time. The difference is that under the GMWB the contractholder retains control over the cash value (can change investment subaccounts, exchange the annuity, etc.), if the contract is annuitized, the contractholder loses that control and flexibility. This is a key difference between the guaranteed minimum income benefit rider, which requires annuitization, and the guaranteed minimum withdrawal benefit rider, which does not. (Another difference: the GMIB guarantees growth in the benefit base, the standard GMWB only guarantees the initial investment.)

Most GMWB riders do not impose a waiting period, withdrawals can be taken in the first year (although some contracts require a waiting period before withdrawal may begin). Some companies offer a "bonus" for contractholders who do not take withdrawals in the early years of the contract. The bonus is an extra amount added to the guaranteed funds that are available under the GMWB.

Like the guaranteed minimum accumulation benefit riders, the annuity company may restrict the range of investment alternatives available to the contractholder. Usually highly volatile subaccounts will not be available if the contract purchases a GMWB, or the company may require the contractholder to invest in a diversified "model portfolio". This is similar to the restrictions on GWAB riders, and is designed to protect the annuity company from excessive investment risk

One important feature available in some GMWB riders is the reset. A reset provision allows the contractholder to adjust the guaranteed amount upwards. If the cash value in the separate account grows, the contractholder can elect to reset the guaranteed value to that new, higher level, thus locking in the gains. This is similar to the step up provision allowed in the GMIB rider. After resetting the guaranteed base, the amount available for periodic withdrawal will increase, as the GMWB withdrawal percentage will now apply to this higher base. Most contracts will allow for upward resets only on certain dates (e.g., each anniversary date, every fifth anniversary date, etc.) although some contracts may allow for resets whenever the cash value has increased by some stated amount. There is a downside to "reset" provisions. Most contracts will automatically reset the guaranteed base amount if the contractholder makes a withdrawal exceeding the percentage set forth in the GMWB rider. For example, if the rider permits a guaranteed $5 \%$ withdrawal each year, and the contractholder withdraws $6 \%$ this year, the guaranteed base will automatically reset. If the cash value in the separate accounts has dropped since the contract's inception, the guaranteed base amount will be reduced too, as a result of the automatic reset. Excess withdrawals in a declining market can be a real risk. In some contracts, the automatic reset may occur even if the excess withdrawal is as little as one dollar.

Partial withdrawals under the GMWB (which is, after all, what this rider encourages) will adjust the guaranteed base amount after each withdrawal. In the earlier example, the contract used a dol-lar-for-dollar reduction; other contracts may use the proportional method or some combination of the two.

## Annuity Fees

One of the strongest arguments against the use of annuities as an investment is that they are laden with fees and other charges. While it is true that there are numerous fees associated with annuities, annuities provide a bundle of benefits not readily available through other investments and those fees represent the annuity company's compensation for providing that package of benefits. Whether a client needs all of the features of a particular annuity contract offers, and whether the fees are adequately disclosed to prospects are key questions in determining the suitability of the contract for that client. That said, few agents understand the cost structure of the annuities they sell - and perhaps because of this, they fail to adequately disclose and explain those costs. Annuity companies could certainly provide more transparency in how they structure their costs, better training for their agents and more clearly written sales materials.

## Fixed Annuity Cost Factors

The simplest annuity, in terms of fees or other charges, is the fixed, single premium, immediate annuity (fixed SPIA). This represents a lump sum deposit with the annuity company, which invests those funds in the company's general assets. Periodic income payments to the annuitant begin immediately. Fixed SPIAs generally have no front-end sales charge or annual contract charges. Since these contracts are annuitized immediately, these contracts generally offer no control or flexibility to the contractholder. The annuitant can simply expect to receive his or her monthly income payment for the rest of his or her life. Some contracts, however, may permit commutation or partial withdrawals, and the annuity company will charge a fee for those distributions. (Commutation is the surrender of the contract once the annuity period begins. If permitted, the contractholder will receive the present value of the expected future payments in a lump sum, less a processing fee.) The only cost component in an SPIA is built into the annuity payout factors.

## Immediate Annuity Payout Factors

Each company will develop a schedule of annuity payout factors. These factors represent the monthly income payments that an annuitant will be paid if the account is annuitized. In the case of immediate annuities, the factor is applied when the contract is issued. In the case of deferred annuities (discussed in detail below), the decision to annuitize or not is left to the discretion of the contractholder. If the contractholder chooses to annuitize in the future, the company will offer the annuitant the greater of the annuity payout factors based on current market conditions at the time of annuitization or the guaranteed annuity factors initially set forth in the contract. The guaranteed annuity factors are based on very conservative assumptions, meaning very low payout factors. As a rule, current factors will be more generous than the guaranteed factors (but with ever-increasing life expectancies it is possible that future payout factors may not be so generous, or always exceed the minimum payouts).

Annuity payout factors are shown as the periodic annuity payment per $\$ 1,000$ of the contract's value. Annuity payout factors are based on the type of payout method selected by the contractholder, the current age of the income recipient, the recipient's gender, the company's assumptions on future interest rates and its projected expenses (including a profit for the company). The company's assumptions and projections are subject to change, so the annuity payout factors offered by companies will change over time, too. But once the contractholder decides to annuitize the current factors at that time are locked in, and that factor will be used for all future annuity payments. All future payments will be based only on that factor.

In the case of immediate fixed annuities, the annuity payments will be fixed at the contract's inception. Those payments will never change, unless the contract contains a cost of living adjustment (COLA). [Most current contracts do not contain COLAs, although some new contracts may provide for a small annual adjustment (e.g., $3 \%$ per year) to the annuity payments. While better than nothing, such a benefit is not a true COLA as it not tied to the rate of inflation. The trend in the marketplace seems to be toward offering some type of inflation protection.]

All contractholders who annuitize will pay an indirect cost that is built into the annuity payout factors. Immediate annuities are immediately annuitized, so holders of immediate fixed or variable annuities will always pay this cost. Deferred annuity holders who have elected to annuitize their contracts will also pay this cost.

## Deferred Fixed Annuities

Deferred fixed annuities (whether funded by a single, lump-sum premium or flexible premiums over time) have far more complex cost structures. Historically, fixed deferred annuities imposed fewer and simpler charges than their variable cousins, but the trend is toward more complexity in both. Purchasers of fixed deferred annuities may pay any or all of the following costs (depending on the contract):

Front-end sales charge. Until recently an up-front sales charge (or "load") was commonly included in a fixed deferred contract. These are very unpopular with consumers; so few contracts today assess this charge. The load is generally stated as a percentage of the initial or subsequent premiums. In many cases it is expressed on a sliding scale - the larger the premium, the smaller the percentage.

Surrender charges. As the name implies, this charge applies if the contract is surrendered, but may also apply if the contractholder makes a substantial partial withdrawal. Most fixed deferred annuities allow withdrawals up to $10 \%$ of the contract balance each year without penalty, any excess withdrawal is subject to the charge. Each contract will spell out how the penalty is applied to excess withdrawals (is the $10 \%$ applied to each year separately or can unused withdrawals from one year be "rolled over" into future years?) but the $10 \%$ penalty-free figure is fairly standard industry wide. The surrender charge is usually a expressed as in a declining schedule: for example $5 \%$ if surrender in the first year, $4 \%$ in the second year, $3 \%$ in the third year, until the surrender charge reaches zero in year 6 . In the case of flexible premiums, the clock may start ticking based on contract's date or the contract may call for surrender charges on a rolling basis, with the new timeframes applied for each additional premium paid to the company. Most contracts will waive sur-
render charges upon the death of the annuitant (or contractholder). Likewise, many contracts will waive the charge if the owner is confined to a nursing home, becomes disabled, or suffers from a "dread disease" listed in the contract's terms.

These two charges (sales charge or surrender charge) allow the company to recover its "acquisition costs" - the cost to put the contract in force. One of those acquisition costs, but by no means the only one, is a commission paid to the salesperson. Almost all fixed annuities are sold by commissionable agents and the company must recover that cost, as well as the cost to develop the product, administrative costs, and a profit. If the contract is kept in force long enough, the company will eventually recover the acquisition costs and make a profit from various aspects of the contract. But if the contract is terminated in the early years the company loses those costs and the opportunity for profit. Hence the surrender charge (or its predecessor, the sales charge).

Contract charges. A few deferred annuity contracts assess an annual charge. If the company does impose a contract charge it will generally waive the fee when the account balance exceeds a certain amount (e.g. no contract charge if the account balance exceeds $\$ 50,000$ ). In effect, this is a fixed dollar fee per contract to cover administrative expenses of small, less profitable contracts.

Market Value Adjustment. Fixed annuities are typically backed by fixed-income investments such as bonds held in the company's general assets. If interest rates increase after the contract is issued, contractholders may choose to surrender the contract and to take advantage of other higheryielding investments. Unfortunately for the company, if interest rates increase, the value of their fixed-income investments will decrease - and the company may have to sell investments at a loss to pay off the surrendered contracts. The market value adjustment addresses this situation. It states that if interest rates (based on some benchmark index) are higher at the time of surrender, the surrender value will be decreased; and vice versa if interest rates have declined. Generally speaking, the market value adjustment applies only on withdrawals in excess of the penalty-free amount, and only during the surrender charge period.

Interest rate spread. The interest rate spread, also called the yield spread, is typically the contract's greatest source of profit for the company. The spread represents the difference between what is promised to the contractholder and what the company can earn from its investments. This is also one of the most shadowy costs to the contractholder. The company will disclose what rate of interest it is will pay on the contract, but the rate of return the company earns on its investments is not disclosed (at least not directly to the contractholder).

## Variable Annuity Cost Factors

Variable annuities begin with premium payments to the annuity company, which invests those funds in a separate account (typically a portfolio of stocks). The contract is credited with accumulation units (similar to mutual fund shares) that vary in value. Put another way, the cash value of the variable annuity depends on the investment performance of the separate subaccount. If annuitized, the accumulation units are converted into a fixed number of annuity units. Future annuity payments will vary based on change value of the annuity units.

Variable annuities, in effect, represent an investment vehicle wrapped within an annuity contract. Variable annuity contract have a number of costs, some relate to the subaccount's investments, others apply at the contract ("wrapper") level. These types of fees apply to all variable annuities whether immediate or deferred:

Front-end sales charge. These are as unpopular with variable annuity investors as they are with fixed annuity purchasers. Recently, however, some variable annuity companies have reintroduced these types of charges, in part due to heightened regulatory scrutiny and bad press associated with surrender charges. Contracts with a front-end sales charge will not have any surrender charges and may have lower annual operating costs.

Surrender charges. If the company does not have a front-end sales charge, it probably will have surrender charges. These operate the same way in variable annuities as in fixed annuities.

Contract charge. This is a small, fixed dollar amount charged annually. It is often waived for contracts with balances exceeding a stated minimum amount (e.g., greater than $\$ 50,000$ ).

Insurance charges. Perhaps the most confusing expense in a variable annuity is the insurance charge. Variable annuities are an investment wrapped with an annuity contract, and that contract provides various benefits in addition to the pure investment nature of the subaccount. There are minimum guaranteed death benefits and guaranteed annuity payout factors built into the contract. And these need to be paid for. The "total insurance expense" represents three factors: mortality and expense charges (M\&E), administrative charges, and distribution charges. Mortality and expense charges compensate the annuity company for the death related benefits. If mortality experience is more favorable than the company expected, the company will earn a profit. Administrative charges compensate the company for overhead and operating expenses. Distribution charges compensate for sales related expenses, most notably commissions to the salesperson. Insurance charges are usually quoted as percentage of the subaccount's assets and are deducted from the investment's annual investment return. (Fixed annuities do not impose insurance charges; they rely on the interest rate spread to cover these costs.)

Please note: some commentators and marketing materials refer to the "total insurance charge" as "mortality and expense". When analyzing specific variable annuity contracts, it is important to compare "apples to apples", which means digging into the fine print to see how the contract labels its expenses. It is also important to note the different types of guarantees each contract makes the M\&E expense may seem higher in one contract than other, but that may be because it offers better features, e.g., a higher death benefit, better annuity payout schedules, etc.

Investment charges. In addition to the contract fees, there will also be fees associated with managing the investments in the subaccount. These are expressed as a percentage of the assets under management, and are analogous to the expense ratio in the mutual fund. The charge reimburses the company for the investment manager's fees and transaction costs in operating the subaccount's portfolio. Investment charges vary widely based on the type of investment in the subaccount: money market and index funds have the lowest charges, then bond funds, diversified stock funds, with specialty stock funds or non-security investments (real estate or natural resources) charging the most.

Charges for riders. The insurance charges described above compensate the company for the basic guarantees of the variable annuity contract. As was discussed in detail earlier, many variable annuity companies offer a wide range of optional riders, including GMIBs, GMABs and GMWBs. Each of these comes at an additional cost, usually expressed as a percentage. Each rider will detail how the cost is computed. For example, the cost of a guaranteed minimum income benefit (GMIB) rider is typically $35-50$ basis points ( $0.35 \%-0.50 \%$ ) per year, which may be assessed against the account's cash value or the benefit base, depending on the contract. The cost of guaranteed minimum accumulation benefit (GMAB) riders typically run 20-25 basis points per year, although in some older contracts it may be as little as 10 basis points. GWAB fees are usually assessed against the annuity's cash value. The charge for a guaranteed minimum withdrawal benefit (GMWB) rider is usually $35-50$ basis points per year, although some companies will waive this cost if the contractholder does not exercise her right to make a withdrawal during a stated period of time (e.g., the first seven years of the rider's life). Newer contracts may offer holders a "combination rider" that incorporates GMIB, GMAB and GMWB features into one rider. The cost for a combination rider is usually around 60 basis points. Enhanced death benefit riders typically cost 35 basis points per year or less. This rate may be assessed against the subaccount's cash value or the guaranteed death benefit provided by the rider.

Annuity payout factors. As with fixed annuities, annuity payout factors applied to variable annuities have an indirect cost built in to them. The standard payout factors reflect current interest rate assumptions. It is important to note that holders who annuitize using a GWIB rider may be required to use special annuity payout factors. These special factors are based on less-favorable interest rate assumptions or an age setback and these represent additional costs to the contractholder.

## Equity Indexed Annuity Costs

Equity Indexed Annuities are a form of fixed annuity. What sets them apart is that the rate of return is tied to the performance of a stock index as opposed to a renewal rate set at the annuity company's discretion. Unlike variable annuities with their separate subaccounts, equity indexed contracts are backed with equity indexed stock options held in the company's general account. To cover the cost of those options, the company imposes participation rates or yield spreads. Remember that traditional fixed annuities rely on interest rate spreads - the difference between what the company promises the contractholder and the rate the company earns on its investments - to generate a profit for the company. The participation rates, yield spreads and caps perform the same function in an EIC - creating a difference between what is promised to the contractholder and what the company earns. In the case of EIC, the company earns the full return of the index; the "moving parts" of the EIC serve to reduce the return promised to contractholders, and thus generate a profit for the company. The interest rate spread was the most shadowy cost of a fixed annuity. EICs by contrast disclose the costs imposed by the moving parts openly, although it is rarely explained to prospects as a "cost". Perhaps this is because most agents are just as confused by the complexity of an EIC's interconnected "moving parts" as clients are.

Like other fixed deferred annuities, EIAs may impose many of the same charges. Most EIAs do not impose a front-end sales charge, but rely instead on surrender charges. Surrender charges are central to many complaints of EIAs and advisors must carefully consider how surrender charges affect the suitability of EIAs for each client's unique situation.

