ANNUITIES

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CHAPTER 1 Annuity General Information

Life insurance policies can be used to protect a family's financial future from the peril of premature death of the wage earner. There are three remaining perils which can be insured through the use of annuities and health insurance policies. Aside from unemployment, four perils threaten an individual's or family's financial resources: (1) premature death, (2) living so long that one's financial assets are exhausted, (3) retirement and (4) disability caused by disease or accident.
The annuity contract which is sold by life insurers, allows the "scientific" liquidation of an estate, accompanied by the promise that the annuitant cannot outlive the stream of income produced by the liquidation. The insurer can make its guarantees based on the basic set of insurance principles; pooling of many similar exposures to loss, premiums paid in advance, and predictability based on the law of large numbers.

Many Americans acquire annuity protection from their employers as a result of participation in a pension plan. When the employer agrees to provide retirement income, the income represents an annuity promise to the retiree. In addition to pension plans, privately purchased annuities may be obtained from life insurers. Annuities have come and gone from the public's investing consciousness over the years. In the early 1980's one large insurer that provided annuities, Baldwin-United, experienced serious financial difficulties and became insolvent. The insolvency caused financial problems for thousands of people who had purchased annuities from this company. It also raised serious questions about the adequacy of insurance regulation. In the 1990's the investment opportunities presented by single-premium deferred annuities stimulated interest in the product, and caused a change in its tax treatment. In early 2003, the Bush administration proposed a revamp of savings plans; the tax-free status of the new savings plans threatened to knock the wind out of the annuity business. Still, sales soldiered on and in 2015, sales of individual annuities totaled $228 billion (Insured Retirement Institute website).

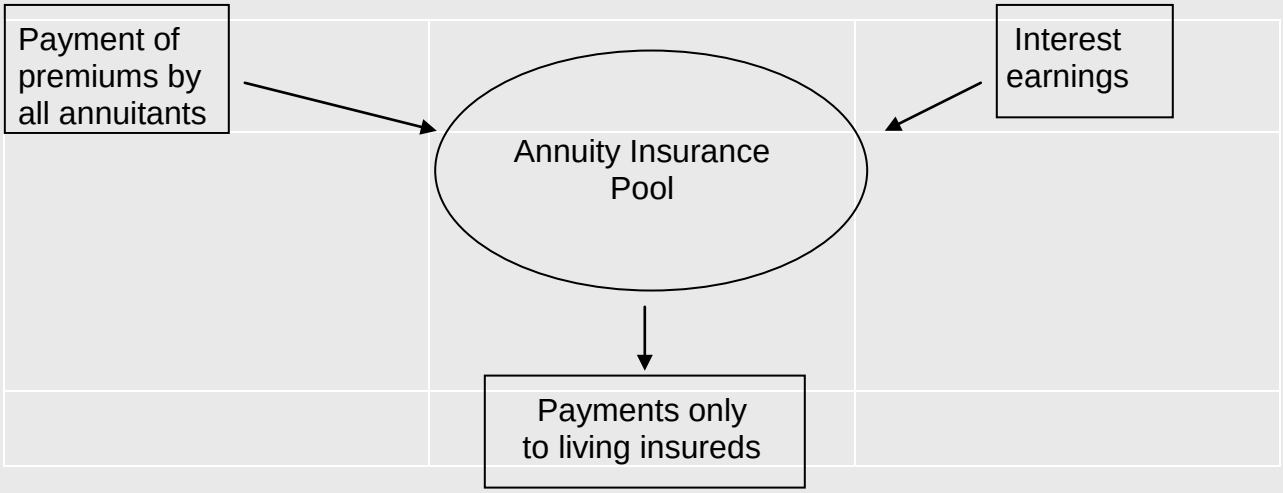
What an Annuity Does

An annuity is generally defined as a stream of regular payments. An annuity insurance policy is a contract in which the insurer promises the insured, called the annuitant, a regular series of payments, called rent. The basic insurance principles that underlie an annuity insurance operation are the same as those that underlie all insurance operations. That is, the insurance company combines many individuals exposed to the same peril. It uses the law of large numbers to predict in advance the payments it must make. Then it charges each insured a fair share of all losses. By charging a premium of all the individuals exposed to the peril, the insurance operation transfers money from all the people exposed to the peril to those who will experience the loss.

The "loss" insured against with an annuity is living a long time. This sounds like a loss that most people would not dislike. However, old age without money can be a tragedy. An annuity insurance operation transfers funds from those who die at a relatively early age to those who live to relatively old ages. That is, some annuitants will live to take out much more than they paid in as a premium. Other annuitants will not live long enough to take out as much as they paid in. Every annuitant pays a fair premium to enter the annuity insurance pool. In exchange for the premium, the annuitant obtains the right to receive regular payments from the insurance pool as long as he or she is alive. An

insurance company earns interest on all the money in the pool. Therefore, the annuity payments received by an annuitant will come from three sources: (1) liquidation of the original premium payment, or principal, (2) interest earned on the principal, and (3) funds made available by the relatively early death of some annuitants. This concept is illustrated in Figure 1-1.

FIGURE 1-1. The Annuity Insurance Operation



It is interesting to note that the mortality table used by annuity insurers to predict the amount of payments they will make is not the same one used for life insurance calculations. People who purchase annuities live longer than do those who do not purchase annuities. While mortality tables used for life insurance calculations end at age 100, the 1983 individual annuity mortality table and Annuity 2000 mortality table continue to age 115. The reason for this is *adverse selection.*

Adverse selection in life insurance means that those people with a greater than average likelihood of premature death try to purchase life insurance at regular rates. Life insurers try to prevent adverse selection by requiring medical examinations in addition to other underwriting precautions. It is more difficult to prevent adverse selection by people purchasing annuities. Theoretically, an insurer could require a medical examination and then reject the "superhealthy" as "poor risks." However, this generally is not a sound approach to take with the public. Therefore, the insurer recognizes that people who purchase annuities are probably in above-average health. This explains why they use a mortality table that reflects this better than average mortality.

ANNUITY CATEGORIZATION

Annuities are classified by several different criteria. Each annuity has characteristics that fall into each of the five categories. Thus, a consumer may purchase a level-premium, cash-refund, fixed-benefit, joint-and-survivor, and deferred-benefit annuity, all of which describe one contract. Five criteria by which an annuity may be described are these:

1. Method of premium payment
2. Promises purchased
3. Time when benefits begin
4. Number of annuitants covered
5. Type of benefits

Method of Premium Payment

If an annuity is purchased with a single-premium payment, it is a single-premium annuity. An annuity also may be purchased by a series of annual payments, much like

level-premium whole life insurance. This method of premium payment is called an annual-premium annuity. Assume that Charles wishes to purchase an annuity that will pay him $500 a month when he retires in 25 years, at age 65. He could pay for such an annuity with one payment of $70,000 on his 65th birthday. Or he could make a series of 25 payments, beginning on his 40th birthday. With this second method of paying for the annuity, each annual payment would be about $1,600. Twenty-five payments of 1,600 equal $40,000. Where does the difference between the $70,000 single premium and the total of $40,000 level premiums come from? It must come from the compound interest the insurer is able to earn on the advance payments.

Promises Purchased

The basic promise with an annuity is for the insurer to agree to continue payments only for as long as the insured is alive-"Till death do us part." This most simple of annuity contracts is called a pure annuity or straight life annuity. There is no guarantee of the total amount of money that the insured will receive with such a contract. If Charles purchases a pure annuity for $70,000 and dies after receiving only one payment of $500, the insurer is not obligated to make any more payments. Even though Charles suffers a huge loss in the example, there is much logic behind this arrangement. Charles purchased the annuity to provide retirement income. With the pure annuity, income payments end when the need ends. Moreover, for a given amount of premium dollars, the pure annuity provides the largest monthly rent payments.

Many people who purchase annuities are not happy with the thought of "losing" most of their premium payment should they die after receiving just a few annuity payments. Therefore, insurance companies have allowed annuitants to purchase additional promises that specify a minimum amount of dollars that will be received when the annuity is purchased. These additional promises come with a price. And the stronger (more valuable) the promise purchased, the greater the premium for a given amount of annuity rent. If a person wishes to specify a minimum return from the insurer, two choices are available. The individual may specify a minimum number of years in which the insurer must make a payment or choose a refund option.

An annuity, five years certain, calls for annuity payments for 5 years or until the annuitant dies, whichever event occurs *last.* If Charles purchases such a contract and lives only 1 month after receiving the first payment, a second beneficiary will receive payments for an additional 4 years and 11 months. On the other hand, if Charles lives for 20 years after the first payment, payments continue for the 20-year period.
Most companies limit the maximum number of years certain to 20. The longer the period certain the annuitant chooses, the smaller each installment payment a given $1,000 of premium will purchase. For example, $1,000 of premiums for a male aged 65 might produce monthly benefits of $7.03 for a pure annuity. If the 10 years certain option is purchased, monthly benefits are reduced to $6.45. If the 20 years certain option is purchased, monthly benefits are reduced to $5.22. Thus, when the 20 years option is chosen at age 65, monthly benefits are about 30 percent less than the benefits provided by a pure annuity.

Refund Option- A second method of guaranteeing a minimum return from an annuity is to purchase a refund option. A cash-refund annuity specifies that, if an annuitant dies before having received a total amount of annuity payments equal to the premium paid, a second beneficiary will receive any difference in cash at the time of the annuitant's death. An installment-refund annuity guarantees that, if an annuitant dies before having

received annuity payments equal to the premium paid, the annuity payments will continue to a second beneficiary until the insurer has paid out a total amount of dollars equal to the premium.

Assume that Charles paid $70,000 for a $500 a month refund annuity. If he dies after receiving payments for 4 years, he would have received $24,000 in annuity payments. If he had purchased a cash-refund annuity, a second beneficiary would receive a $46,000 cash payment ($70,000 -$24,000) at his death. If he had purchased an installment-refund annuity, a second beneficiary would continue to receive the monthly payments of $500 for 7 years and 9 months until a total of $70,000 had been received by both recipients. On the other hand, if Charles lives 11.6 years or longer, he will receive at least $70,000 in annuity payments. If he lives beyond this point, he will continue to receive monthly rent payments, but no refund will be paid at his death.

By employing compound interest, an insurer can guarantee to return at a minimum all of an annuitant's premium, and in addition guarantee payments as long as the insured is alive. With all annuities for which a minimum return is guaranteed, monthly payments will be less than with a pure annuity for each $1,000 of premium paid. The smaller the monthly payment is, the greater the interest that can be earned on the remaining principal. Assume that a $70,000 premium is paid for a pure annuity. First-year benefits will amount to $6,000. Thus, $64,000 is left to earn interest in the second year. If an annuity 20 years certain had been purchased, first-year benefits would have been about $4,400 ($5.22 x 70). Under this plan $65,600 would have been left to earn interest in the second year. Therefore, the larger the minimum guarantee the insurer makes, the larger the part interest earnings must play in each annuity payment.

When Benefits Start

If a person pays for an annuity and the benefits begin after a relatively short delay, this is described as an immediate annuity. If a person pays for an annuity and benefits do not begin at once, this is a deferred annuity. Potential purchasers can get confused when they consider together the method of premium payment and the time benefits begin. It is possible to purchase a single-premium immediate annuity. For example, the person may pay $70,000 and have benefits of $500 a month begun immediately. Or one may purchase a single-premium deferred annuity. For example, Charles may pay a $40,000 premium, wait 25 years, and then collect benefits of $500 a month. A level-premium immediate annuity is not a possibility. Thus, all level-premium annuities are deferred annuities.

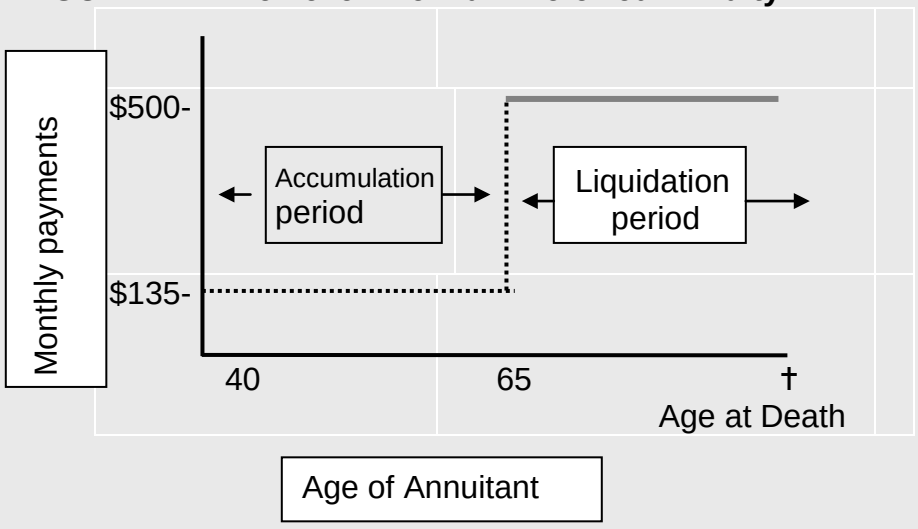
Figure 1-2 illustrates the level-premium deferred annuity. The period during which the insured is paying premiums to the insurer is called the accumulation period. The period during which the insurer makes payments to the annuitant is called the liquidation period. With most deferred annuities, if an insured dies during the accumulation period, a beneficiary is entitled to the return of the premiums, often with interest.

Number of Annuitants

An annuity may be purchased to cover one or more lives. A single-life annuity covers one life. A joint-life annuity covers two lives. With this contract, payments cease at the death of either annuitant. A joint-and-survivor annuity provides payment to two annuitants, with the payments continuing for as long as either annuitant is alive. If the

payments are reduced by one-half (or two-thirds) after the death of one annuitant, the contract is called a joint-and-one-half (or joint-and-two-thirds) survivorship annuity.

FIGURE 1-2. **The Level-Premium Deferred Annuity**



DECIDING ON ANNUITY BENEFITS

Annuity benefits are determined through the use of a mortality table. The age at which an annuitant begins to receive benefits is an important determinant of the size of each monthly installment. The annuity mortality table shows that males aged 65 have a longer life expectancy than do males aged 70. The longer the life expectancy of an annuitant, the greater the number of benefit payments the insurer will have to make. Assume a male aged 65 receives $7.03 a month in benefits for each $1,000 in premium. Then male aged 70 receives $8.45, and a male aged 75 receives $10.41. The older the annuitant is when the annuity begins, the shorter is the average period in which the insurer must pay benefits, and thus the larger each benefit payment may be. Females have a longer life expectancy than males. Thus, if a male and a female of the same age pay a $1,000 premium for an annuity, the male annuitant will receive the greater monthly payment. Since the insurer expects to pay benefits over a shorter period of time to a male annuitant, the size of each payment may be larger. As a practical matter, rather than have separate male and female mortality tables, insurers treat females the same as males who are four or five years younger. Such treatment reduces their monthly benefits. For example, for a $1,000 premium, one company pays males age 65 $7.03 of monthly benefits with a pure annuity. A 65-year-old female will be treated like a 60-year-old male and will receive $5.98 of monthly benefits. However, the 65-year-old female is likely to receive her benefits for several more years than is the male, so this procedure produces actuarially fair results. The three basic factors that determine monthly annuity benefits are the age, sex, and amount of premium the annuitant has paid. Furthermore, as the annuitant chooses guarantees beyond that promised with a pure annuity, monthly income is reduced.

USE OF ANNUITIES

An annuity is used to guarantee a steady stream of income. It is therefore most often used to provide for retirement needs. Those who are not confident of their money management skills, and want the professional management provided by an insurer can

also use the annuity. An annuity will maximize annual cash flow for those without dependents who are willing to liquidate their assets. Annuities have also been used in "structured settlements" in negligence cases. In these instances, instead of the defendant paying a lump sum to a plaintiff, the defendant (using the services of an insurer) promises a series of payments to the injured party. Annuities can also be used as a basic payout mechanism in that classic waste of the taxpayer's money, the state-run lottery.

BENEFIT FORMS

An annuity may provide two types of benefits: (1) fixed-dollar benefits or (2) variable-dollar benefits. **Fixed-dollar** benefits means that the number of dollars that the annuitant receives as each regular payment will stay the same. Thus, a $500 a month annuity provides $500 a month for as long as the insurer promised. An annuity in which the amount of each regular payment is not fixed is called a **variable annuity.**
A variable annuity was designed to overcome the problems that inflation causes people with fixed-dollar incomes. Consider the problem that an annuitant would have with a $250 a month annuity income purchased in 1965. In 1965 the annuity income probably provided for a very adequate standard of living. Postage was 5¢ a letter, gasoline about 23¢ a gallon, and a Chevrolet cost around $4,000. By 1986, a $250 a month income would not provide the same standard of living. At that time, a letter cost 22¢ to mail, gasoline cost about $1 a gallon, and a Chevy cost about $13,000. As 2015 began, a letter was 49¢, gas was just above $2.00, and a Chevrolet ran $20-$50,000. That is only a half-again increase in the last 20 years compared to the three to fourfold increase the 20 years before that. The point is that, inflation, or economic uncertainty, is the enemy of the fixed-dollar income.

The variable annuity was developed in the 1950s to provide constant purchasing power rather than a constant number of dollars. In theory, the dollar amount of the annuity payments for the recipient of a variable annuity may increase or decrease from period to period. Thus, the annuitant may receive $500 a month for the first year and $560 a month for the second year. In theory, if prices of consumer goods have risen from the first to the second year, the $60 increase in annuity payment will allow the annuitant to maintain the same standard of living. A portfolio of common stock is the vehicle used to provide the varying amount of dollars. In theory, in the long run, the same forces that drive up consumer prices during an inflationary period will also drive up the earnings of large corporations. The increase in earnings that such companies report theoretically will cause their dividends and market value to increase. If an insurer were to own a portfolio of such companies with increasing earnings, dividends, and market prices, it will be able to pay an increasing number of dollars to its annuitants.

In the fifty-plus years during which variable annuities have been available, the theory underlying the variable annuity has proved to be basically correct. In the short run, the theory need not hold true. Thus, in the period from 1973 to 1975, the prices of most consumer goods rose at about a 12 percent annual rate. The stock market, on the other hand, sustained a severe setback. This result was exactly the opposite of the theory supporting the variable annuity.

Variable annuities, which were first marketed in the United States in the 1950s, at first enjoyed only modest sales success. In the beginning all variable annuities were sold on a group basis. Owing to a decision of the U.S. Supreme Court, variable annuities are

subject to the regulation and rules of the Securities and Exchange Commission.[1] In the opinion of some people, this is one reason for variable annuities not having achieved widespread popularity.

Many people who have individual as opposed to group annuities obtain them with the cash values of their permanent life insurance. Such an arrangement makes a very neat insurance plan. For example, assume that Joe buys a $150,000 whole life insurance policy when he is 30 years old. He pays a level premium every year. Should he die prematurely, his wife and children would have a source of funds to meet their financial needs. If Joe lives to be age 65, he will probably no longer have dependent children, his mortgage will be paid, and his need for life insurance may be reduced. Upon retirement he will have a need for a regular stream of income. As a rule, social security benefits are meant to provide only a floor of retirement income rather than a complete benefit. In any event, the income from an annuity can make a nice supplement to the retirement income provided by other sources. Thus, many people with whole life policies convert these policies to annuities when they retire. Joe's $250,000 whole life policy will have a cash value of about $95,000 when he reaches age 65. If he uses the cash value to purchase a single-premium, immediate, pure annuity, he can guarantee a stream of income of **about $500 a month** for the rest of his life. Quotes for immediate annuities are readily available on the Internet.

As stated earlier, most individuals acquire their annuities as members of a group, usually a group of employees. Pension benefits promised to employees are governed by a federal law called the Employee Retirement Income Security Act of 1974 (ERISA). The purpose of this regulation is to assure every worker who has been promised pension benefits that the promises will be kept. ERISA works to achieve this goal by setting minimum standards for such things as funding the promised pension annuities, vesting workers with rights to their pension even if employment is terminated, and insuring pension promises if a plan is terminated. ERISA is supposed to make the pension annuities promised American workers more secure. Mention also must be made of tax code provisions that allow individuals to set up a retirement plan of their own, with tax benefits similar to those granted private group pension plans. Individual pension plans, including Individual Retirement Arrangements (IRA's-[AKA under the old moniker of Individual Retirement Accounts]), may be funded with individually purchased annuities.

THE TAXATION OF ANNUITIES

Withdrawals from annuities may be made during the accumulation period or during the liquidation period. The tax consequences of a withdrawal during the accumulation period are not favorable; the tax consequences of withdrawal during the liquidation period can be quite favorable compared to alternative investments. Other chapters of this book discuss annuity tax issues.

Withdrawal Prior to Liquidation

If the annuitant funds a deferred annuity with a series of single premium deposits, or with level premiums, there will be a growing accumulation of funds prior to liquidation. In general, there is no federal income tax on the investment income earned on this

[1] *Securities and Exchange Commission* v. *VALIC,* 359 U.S. 65 (1959).

accumulation unless there are total or partial withdrawals prior to age 59½. If an annuity owner withdraws funds during the accumulation period, the withdrawal is treated as if it is interest income, and it is subject to taxation as ordinary income. However, if the withdrawal is greater than all the investment income earned, the difference is treated as a return of principal. For example, assume Joan has deposited $5,000 in annuity premiums. Assume investment income has increased the value of her account by $2,000 so its total value is $7,000. Assume she withdraws $2,500. In the year of withdrawal, she must report $2,000 as ordinary income. The $500 is considered a return of capital. Moreover, after 1986 a 10 percent penalty tax is applied to the entire $2,500 withdrawal. Thus, if Joan makes a withdrawal prior to age 59½, she will pay the 10% penalty tax plus any additional ordinary income tax applicable.

Withdrawals in Liquidation

When the annuitant receives rent payments during the liquidation phase, part of the rent arises from the return of principal, as was noted earlier in the chapter. This part of the return is exempt from the income tax. The amount of the rent attributed to the return of principal is determined by an *exclusion ratio.* The mathematics of the exclusion ratio is covered in the sections describing income tax treatment.

As an example of the favorable tax treatment of annuity withdrawals, assume David has paid $70,000 for an annuity. Over his expected lifetime he is to receive $100,000 in annuity rental payments from the insurer. (This figure would be calculated using IRS annuity tables.) In this case, David may exclude 70 percent of each payment, paying taxes only on the remaining 30 percent. Thus, if David receives $6,000 from his annuity, he reports only (.3 x $6,000) or $1,800 as taxable income. If his taxes are at a 28 percent marginal rate, he pays only (.28 x $1,800) or $504 in taxes on $6,000 in cash flow. Moreover, if David lives an exceptionally long life and receives much more than $100,000 from his annuity, he can continue to exempt from taxes 70 percent of each annuity rental receipt.

CHAPTER 2 PENSION AND ANNUITY INCOME

This section contains the information needed to determine the tax treatment of distributions received from pensions and annuity plans and also shows how to report the income on the federal income tax return. How these distributions are taxed depends on whether they are *periodic payments* (amounts received as an annuity) that are paid at regular intervals over several years or *nonperiodic payments* (amounts not received as an annuity). This material is presented as introductory material only. Tax statutes can change every year. **IRS publications or a tax professional should be consulted before completing tax returns**

General Information

Here is a review of some of the terms that will be used in this section:

• A **pension** is generally a series of definitely determinable payments made to the taxpayer after he or she retires from work. Pension payments are made regularly and are based on certain factors, such as years of service with an employer or prior compensation.

• An **annuity** is a series of payments under a contract made at regular intervals over a period of more than one full year. They can be either fixed (under which one receive a definite amount) or variable (not fixed). The taxpayer can buy the contract alone or with the help of his or her employer.

• A **qualified employee plan** is an employer's stock bonus, pension, or profit-sharing plan that is for the exclusive benefit of employees or their beneficiaries and that meets Internal Revenue Code requirements. It qualifies for special tax benefits, such as tax deferral for employer contributions and rollover distributions, and capital gain treatment or the 10-year tax option for lump-sum distributions (if participants qualify).

• A **qualified employee annuity** is a retirement annuity purchased by an employer for an employee under a plan that meets Internal Revenue Code requirements.

• A **tax-sheltered annuity** (TSA) plan (often referred to as a "403(b) plan" or a "tax-deferred annuity plan") is a retirement plan for employees of public schools and certain tax-exempt organizations. Generally, a TSA plan provides retirement benefits by purchasing annuity contracts for its participants.

• A **nonqualified employee plan** is an employer's plan that does not meet Internal Revenue Code requirements for qualified employee plans. It does not qualify for most of the tax benefits of a qualified plan. For example, see *Section 457 Deferred Compensation Plans,* later.

Types of pensions and annuities

Pensions and annuities include the following types.

1) Fixed period annuities. An individual receives definite amounts at regular intervals for a specified length of time.

2) Annuities for a single life. A person receives definite amounts at regular intervals for life. The payments end at death.

3) Joint and survivor annuities. The first annuitant receives a definite amount at regular intervals for life. After he or she dies, a second annuitant receives a definite amount at regular intervals for life. The amount paid to the second annuitant may or may not differ from the amount paid to the first annuitant.

4) Variable annuities. One receives payments that may vary in amount for a specified length of time or for life. The amounts received may depend upon such variables as profits earned by the pension or annuity funds, cost-of-living indexes, or earnings from a mutual fund.
5) Disability pensions. A person receives disability payments because he or she retired on disability and have not reached minimum retirement age.

More than one program- The person may receive employee plan benefits from more than one program under a single trust or plan of his or her employer. If the taxpayer participates in more than one program, he or she may have to treat each as a separate contract, depending upon the facts in each case. Also, one may be considered to have received more than one pension or annuity. The former employer or the plan administrator should be able to tell if the individual has more than one pension or annuity contract.

Example. The employer set up a noncontributory *profit-sharing plan* for its employees. The plan provides that the amount held in the account of each participant will be paid when that participant retires. Your employer also set up a contributory defined benefit *pension plan* for its employees providing for the payment of a lifetime pension to each participant after retirement. The amount of any distribution from the profit-sharing plan depends on the contributions (including allocated forfeitures) made for the participant and the earnings from those contributions. Under the pension plan, however, a formula determines the amount of the pension benefits. The amount of contributions is the amount necessary to provide that pension. Each plan is a separate program and a separate contract. If a person gets benefits from these plans, he or she must account for each separately, even though the benefits from both may be included in the same check.

Qualified domestic relations order (QDRO). A spouse or former spouse who receives part of the benefits from a retirement plan under a QDRO reports the payments received as if he or she were a plan participant. The spouse or former spouse is allocated a share of the participant's cost (investment in the contract) equal to the cost times a fraction. The numerator (top part) of the fraction is the present value of the benefits payable to the spouse or former spouse. The denominator (bottom part) is the present value of all benefits payable to the participant. A distribution that is paid to a child or dependent under a QDRO is taxed to the plan participant.

What is a QDRO? A QDRO is a judgment, decree, or order relating to payment of child support, alimony, or marital property rights to a spouse, former spouse, child, or other dependent. The QDRO must contain certain specific information, such as the name and last known mailing address of the participant and each alternative payee, and the amount or percentage of the participant's benefits to be paid to each alternate payee. A QDRO may not award an amount or form of benefit that is not available under the plan.

Variable Annuities

The tax rules in this section apply both to annuities that provide fixed payments and to annuities that provide payments that vary in amount based on investment results or other factors. For example, they apply to commercial variable annuity contracts, whether bought by an employee retirement plan for its participants or bought directly from the issuer by an individual investor. Under these contracts, the owner can generally allocate the purchase payments among several types of investment portfolios

or mutual funds and the contract value is determined by the performance of those investments. The earnings are not taxed until distributed either in a withdrawal or in annuity payments. The taxable part of a distribution is treated as ordinary income. For information on the tax treatment of a transfer or exchange of a variable annuity contract, see *Transfers of Annuity Contracts* under *Taxation of Nonperiodic Payments,* later.

Withdrawals. If an individual withdraws funds *before his or her annuity starting date* and their annuity is under a qualified retirement plan, a ratable part of the amount withdrawn is tax free. The tax-free part is based on the ratio of the cost to the person's account balance under the plan. If an individual's annuity is under a nonqualified plan (including a contract bought directly from the issuer), the amount withdrawn is allocated first to earnings (the taxable part) and then to the cost (the tax-free part). However, if the annuity contract was bought before August 14, 1982, a different allocation applies to the investment before that date and the earnings on that investment. To the extent the amount withdrawn does not exceed that investment and earnings, it is allocated first to the cost (the tax-free part) and then to earnings (the taxable part). If the taxpayer withdraws funds (other than as an annuity) *on or after the individual's annuity starting dat*e, the entire amount withdrawn is generally taxable. The amount received in a *full surrender* of the annuity contract at any time is tax free to the extent of any cost that the person has not previously recovered tax free. The rest is taxable. For more information on the tax treatment of withdrawals, see *Taxation of Nonperiodic Payments,* later. If a person withdraws funds from his or her annuity before reaching age 59½, also see *Tax on Early Distributions* under *Special Additional Taxes,* later.

Annuity payments. If someone receives annuity payments under a variable annuity plan or contract, he or she recovers the cost tax free under either the Simplified Method or the General Rule, as explained under *Taxation of Periodic Payments,* later. For a variable annuity paid under a qualified plan, one generally must use the Simplified Method. For a variable annuity paid under a nonqualified plan (including a contract bought directly from the issuer), the taxpayer must use a special computation under the General Rule.

Death benefits. If an individual receives a single-sum distribution from a variable annuity contract because of the death of the owner or annuitant, the distribution is generally taxable only to the extent it is more than the unrecovered cost of the contract. If that person chooses to receive an annuity, the payments are subject to tax as described above. If the contract provides a joint and survivor annuity and the primary annuitant had received annuity payments before death, he or she figures the tax-free part of annuity payments received as the survivor in the same way the primary annuitant did. See *Survivors and Beneficiaries,* later.

Section 457 Deferred Compensation Plans

If a person works for a state or local government or for a tax-exempt organization, he or she may be eligible to participate in a section 457 deferred compensation plan. The individual is not taxed currently on his or her pay that is deferred under this plan. The taxpayer or the beneficiary is taxed on this deferred pay only when it is distributed or made available to either of if these people.

Is a plan eligible?

To find out if a plan is an eligible plan, one should check with their employer. The following plans are *not* treated as section 457 plans.

1) Bona fide vacation leave, sick leave, compensatory time, severance pay, disability pay, or death benefit plans.
2) Nonelective deferred compensation plans for non-employees (independent contractors).
3) Deferred compensation plans maintained by churches for church employees.
4) Length of service award plans to bona fide volunteer firefighters and emergency medical personnel.

An exception applies if the total amount paid to a volunteer exceeds $3,000 for a one year period.

Tax treatment of plan distributions- A section 457 plan is a nonqualified employee plan. Distributions of deferred pay are not eligible for the 10-year tax option or rollover treatment, discussed later. The tax on early distributions, discussed later, does not apply to early distributions. The taxpayer may be subject to a tax on excess accumulation if one does not begin receiving minimum distributions from the plan by their required beginning date. See *Tax on Excess Accumulation,* later.

Withholding Tax and Estimated Tax

A section 457 plan distribution is reported on Form W–2 (not on Form 1099–R), unless the recipient is the beneficiary of a deceased employee.

A taxpayer's retirement plan payments are subject to federal income tax withholding. However, a person can choose not to have tax withheld on payments received unless they are eligible rollover distributions. If one chooses not to have tax withheld or if the taxpayer does not have enough tax withheld, he or she may have to make estimated tax payments. See *Estimated tax,* later. The withholding rules apply to the *taxable* part of payments received from:

- An employer pension, annuity, profit-sharing, or stock bonus plan,
- Any other deferred compensation plan,
- An individual retirement arrangement (IRA), and
- A commercial annuity.

For this purpose, a commercial annuity means an annuity, endowment, or life insurance contract issued by an insurance company. *There will be no withholding on any part of a distribution that (it is reasonable to believe) will not be includible in gross income.*

These withholding rules also apply to disability pension distributions received before the recipient's minimum retirement age. See *Disability Retirement,* later.

Choosing no withholding. One can choose not to have income tax withheld from retirement plan payments unless they are eligible rollover distributions. This applies to periodic and nonperiodic payments. The payer will explain how to make the choice. This choice remains in effect until the taxpayer revokes it. The payer will ignore their choice not to have tax withheld if:

1) The person does not give the payer his or her social security number (in the required manner), or
2) The IRS notifies the payer, before the payment is made, that an incorrect social security number was given.

To choose not to have tax withheld, a U.S. citizen or resident must give the payer a home address in, and have the check delivered to an address in, the United States or

its possessions. Without that address, the payer must withhold tax. For example, the payer has to withhold tax if the recipient has provided a U.S. address for a nominee, trustee, or agent to whom the benefits are delivered, but has not provided his or her own U.S. home address. If one does not give the payer a home address in the United States or its possessions, he or she can choose not to have tax withheld only if the person certifies to the payer that he or she is not a U.S. citizen, a U.S. resident alien, or someone who left the country to avoid tax. But if one so certifies, he or she may be subject to the 30% flat rate withholding that applies to nonresident aliens. This 30% rate will not apply if one is exempt or subject to a reduced rate by treaty.

Periodic payments. Unless an individual chooses no withholding, his or her annuity or periodic payments (other than eligible rollover distributions) will be treated like wages for withholding purposes. Periodic payments are amounts paid at regular intervals (such as weekly, monthly, or yearly), for a period of time greater than one year (such as for 15 years or for life). The taxpayer should give the payer a completed withholding certificate (Form W–4P or a similar form provided by the payer). If he or she does not, tax will be withheld as if the taxpayer were married and claiming three withholding allowances. Tax will be withheld as if one were single and were claiming no withholding allowances if:

1) A person does not give the payer his or her social security number (in the required manner), or
2) The IRS notifies the payer (before any payment is made) that an incorrect social security number was given.

The taxpayer must file a new withholding certificate to change the amount of withholding.

Nonperiodic distributions. For a nonperiodic distribution (a payment other than a periodic payment) that is not an eligible rollover distribution, the withholding is 10% of the distribution, unless the person chooses not to have tax withheld. The taxpayer can use Form W–4P to elect to have no income tax withheld. One can also ask the payer to withhold an additional amount using Form W–4P. The part of any loan treated as a distribution (except an offset amount to repay the loan), explained later, is subject to withholding under this rule.

Eligible rollover distributions- In general, an eligible rollover distribution is any distribution of all or any part of the balance to a plan participant's credit in a qualified retirement plan except:

- The nontaxable part of a distribution,
- A required minimum distribution (described under *Tax on Excess Accumulation,* later), or
- Any of a series of substantially equal distributions paid at least once a year over a person's lifetime or life expectancy (or the lifetimes or life expectancies of the retiree or the beneficiary), or over a period of 10 years or more.

See *Rollovers,* later, for additional exceptions.

Withholding. If a person receives an eligible rollover distribution, 20% of it will generally be withheld for income tax. He or she cannot choose not to have tax withheld from an eligible rollover distribution. However, tax will not be withheld if an individual has the plan administrator pay the eligible rollover distribution directly to another qualified plan or an IRA in a direct rollover. See *Rollovers,* later, for more information.

Estimated tax. The estimated tax is the total of a taxpayer's expected income tax, self-employment tax, and certain other taxes for the year, minus his or her expected credits and withheld tax. Generally, the taxpayer must make estimated tax payments for the subsequent year if the estimated tax, as defined above, is $1,000 or more and it is estimated that the total amount of income tax to be withheld will be less than the lesser of:

1) 90% of the tax to be shown on the subsequent year's return, or
2) 100% of the tax shown on the current year return.

As of the year 2015, if a person's adjusted gross income was more than $150,000 ($75,000 if the filing status for 2015 is married filing separately), substitute 110% for 100% in (2) above.

Taxation of Periodic Payments

This section explains how the periodic payments received from a pension or annuity plan are taxed. Periodic payments are amounts paid at regular intervals (such as weekly, monthly, or yearly) for a period of time greater than one year (such as for 15 years or for life). These payments are also known as ***amounts received as an annuity***. If a person receives an amount from his or her plan that is *not* a periodic payment, see *Taxation of Non-periodic Payments,* later. In general, an individual can recover the cost of their pension or annuity tax free over the period he or she is to receive the payments. The amount of each payment that is more than the part that represents cost is taxable.

Cost (Investment in the Contract)

The first step in figuring how much of a pension or annuity is taxable is to determine the plan participant's cost (investment in the contract). In general, a person's cost is the net investment in the contract as of the annuity starting date. To find this amount, the taxpayer must first figure the total premiums, contributions, or other amounts paid. This includes the amounts any employer of the person in question contributed that were taxable when paid. (Also see *Foreign employment contributions,* later.) It does not include amounts contributed for health and accident benefits (including any additional premiums paid for double indemnity or disability benefits) or deductible voluntary employee contributions. From this total cost one must subtract the following amounts.

1) Any refunded premiums, rebates, dividends, or un-repaid loans that were not included in the taxpayer's income and that were received by the later of the annuity starting date or the date on which the first payment was received.
2) Any other tax-free amounts received under the contract or plan by the later of the dates in (1).
3) If a person must use the Simplified Method for his or her annuity payments, the tax-free part of any single-sum payment received in connection with the start of the annuity payments, regardless of when received. (See *Simplified Method,* later, for information on its required use.)
4) If the General Rule is used for annuity payments, the value of the refund feature in the annuity contract. (See *General Rul*e, later, for information on its use.) The annuity contract has a refund feature if the annuity payments are for life (or the lives of the annuitant and the survivor) and payments in the nature of a refund of the annuity's cost will be made to the beneficiary or estate if all annuitants die before a stated amount or a stated number of payments are made. For more information, see the chapter on the General Rule. The tax treatment of the items described in (1) through (3) above is discussed later under *Taxation of Nonperiodic Payments.*

Annuity starting date defined. The annuity starting date is either the first day of the first period for which the annuitant received payment under the contract or the date on which the obligation under the contract becomes fixed, whichever comes later. *Example.* On January 1, Mr. Smith completed all his payments required under an annuity contract providing for monthly payments starting on August 1 for the period beginning July 1. The annuity starting date is July 1. This is the date used in figuring the cost of the contract and selecting the appropriate number from the table for line 3 of the Simplified Method Worksheet.

Foreign employment contributions- If an individual worked abroad, the cost includes amounts contributed by his or her employer that were not includible in gross income. This applies to contributions that were made either:

1) Before 1963 by an employer for that work,
2) After 1962 by the individual's employer for that work if the employee performed the services under a plan that existed on March 12, 1962, or
3) After December 1996 by an employer on behalf of an employee who performed the services of a foreign missionary (either a duly ordained, commissioned, or licensed minister of a church or a lay person).

Fully Taxable Payments

The pension or annuity payments that were received are fully taxable if the recipient has *no cost* in the contract because:

1) He or she did not pay anything or are not considered to have paid anything for their pension or annuity,
2) The employer did not withhold contributions from a person's salary, or
3) He or she got back all of their contributions tax free in prior years (however, see *Exclusion not limited to cost* under *Partly Taxable Payments,* later).

Report the total amount received on line 16b, Form 1040, or line 12b, Form 1040A. One should make no entry on line 16a, Form 1040, or line 12a, Form 1040A.

Deductible voluntary employee contributions- Distributions received that are based on the accumulated deductible voluntary employee contributions are generally fully taxable in the year distributed to the taxpayer. Accumulated deductible voluntary employee contributions include net earnings on the contributions. If distributed as part of a lump sum, they do not qualify for the 10-year tax option or capital gain treatment.

Partly Taxable Payments

If a person contributed to a pension or annuity plan, he or she can exclude part of each annuity payment from income as a recovery of cost. This tax-free part of the payment is figured when the annuity starts and remains the same each year, even if the amount of the payment changes. The rest of each payment is taxable. The taxpayer figures the tax-free part of the payment using one of the following methods.

- ***Simplified Method.*** A person generally must use this method if his or her annuity is paid under a qualified plan (a qualified employee plan, a qualified employee annuity, or a tax-sheltered annuity plan or contract). He or she cannot use this method if their annuity is paid under a nonqualified plan.
- ***General Rule.*** One must use this method if his or her annuity is paid under a nonqualified plan. Generally, a taxpayer cannot use this method if the annuity is paid under a qualified plan.

A person determines which method to use when he or she first begins receiving the annuity, and one continues using it for each year that part of the cost is recovered.

Qualified plan annuity starting before November 19, 1996. If an individual's annuity is paid under a qualified plan and their annuity starting date (defined earlier under *Cost (Investment in the Contract)* is after July 1, 1986, and before November 19, 1996, the taxpayer could have chosen to use either the Simplified Method or the General Rule. If the annuity starting date is before July 2, 1986, the person uses the General Rule unless his or her annuity qualified for the Three-Year Rule. If the taxpayer used the Three-Year Rule (which was repealed for annuities starting after July 1, 1986), the annuity payments are now fully taxable.

Exclusion limit. An individual's annuity starting date determines the total amount of annuity payments that can be excluded from income over the years.

Exclusion limited to cost. If the annuity starting date is after 1986, the total amount of annuity income that a person can exclude over the years as a recovery of the cost cannot exceed his or her total cost. Any unrecovered cost at an individual's (or the last annuitant's) death is allowed as a miscellaneous itemized deduction on the final return of the decedent. This deduction is not subject to the 2%-of-adjusted-gross-income limit.

Example 1. Jane Smith's annuity starting date is after 1986, and she excludes $100 a month under the Simplified Method. The total cost of her annuity is $12,000. Her exclusion ends when she has recovered her cost tax free, that is, after 10 years (120 months). Thereafter, Jane Smith's annuity payments are fully taxable.

Example 2. The facts are the same as in *Example 1,* except Jane Smith dies (with no surviving annuitant) after the eighth year of retirement. She has recovered tax free only $9,600 (8 X $1,200) of her cost. An itemized deduction for her unrecovered cost of $2,400 ($12,000 minus $9,600) can be taken on her final return.

Exclusion not limited to cost. If the annuity starting date is before 1987, a person can continue to take his or her monthly exclusion for as long as he or she received the annuity. If an individual chose a joint and survivor annuity, the survivor can continue to take the survivor's exclusion figured as of the annuity starting date. The total exclusion may be more than the annuitant's cost.

Simplified Method

Under the Simplified Method, a person figures the tax-free part of each annuity payment by dividing the annuity cost by the total number of anticipated monthly payments. For an annuity that is payable for the lives of the annuitants, this number is based on the annuitants' ages on the annuity starting date and is determined from a table. For any other annuity, this number is the number of monthly annuity payments under the contract.

Who must use the Simplified Method. A taxpayer must use the Simplified Method if his or her annuity starting date is after November 18, 1996, and he or she meets *both* of the following conditions.

1) An individual receives a pension or annuity payments from any of the following

qualified plans.

a) A qualified employee plan.
b) A qualified employee annuity.
c) A tax-sheltered annuity (TSA) plan or contract.

2) On their annuity starting date, at least one of the following conditions applies;
   a) The person is under age 75.
   b) The person is entitled to fewer than 5 years of guaranteed payments.

Guaranteed payments*.* An annuity contract provides guaranteed payments if a minimum number of payments or a minimum amount (for example, the amount of the investment) is payable even if the annuitant and any survivor annuitant do not live to receive the minimum. If the minimum amount is less than the total amount of the payments an individual is to receive, barring death, during the first 5 years after payments begin (figured by ignoring any payment increases), that person is entitled to fewer than 5 years of guaranteed payments.

Annuity starting before November 19, 1996- If the annuity starting date is after July 1, 1986, and before November 19, 1996, and the taxpayer chose to use the Simplified Method, he or she must continue to use it each year that the taxpayer recovers part of their cost. One could have chosen to use the Simplified Method if the annuity is payable for life (or the lives of the annuitant and the survivor annuitant) and both of the conditions listed earlier for annuities starting after November 18, 1996 are met.

Who cannot use the Simplified Method. An individual cannot use the Simplified Method if he or she received a pension or annuity from a nonqualified plan or otherwise do not meet the conditions described in the preceding discussion. See *General Rule,* later.

How to use it- The worksheet in the back of this section can be copied and used to figure a person's taxable annuity for the current year. The taxpayer should keep the completed worksheet; it will help figure the taxable annuity for the next year. To complete line 3 of the worksheet, the taxpayer must determine the total number of expected monthly payments for the annuity. How a person does this depends on whether the annuity is for a single life, multiple lives, or a fixed period. For this purpose, treat an annuity that is payable over the life of an annuitant as payable for that annuitant's life even if the annuity has a fixed period feature or also provides a temporary annuity payable to the annuitant's child under age 25. The taxpayer does not need to complete line 3 of the worksheet or make the computation on line 4 if he or she received annuity payments the previous year and used that year's worksheet to figure the taxable annuity. Instead, enter the amount from line 4 of the previous year's worksheet on line 4 of the current year's worksheet.

Single life annuity- If an annuity is payable for one person's life alone, use Table 1 at the bottom of the worksheet to determine the total number of expected monthly payments. Enter on line 3 the number shown for the age of the subject individual on the annuity starting date. This number will differ depending on whether the annuity starting date is before November 19, 1996, or after November 18, 1996.

Multiple lives annuity*.* If the annuity is payable for the lives of more than one annuitant, use Table 2 at the bottom of the worksheet to determine the total number of expected monthly payments. Enter on line 3 the number shown for the annuitants'

combined ages on the annuity starting date. For an annuity payable to the primary annuitant and to more than one survivor annuitant, combine the annuitant's age and the age of the youngest survivor annuitant. For an annuity that has no primary annuitant and is payable to an individual and others as survivor annuitants, combine the ages of the oldest and youngest annuitants. Do not treat as a survivor annuitant anyone whose entitlement to payments depends on an event other than the primary annuitant's death. However, *if the annuity starting date is before 199*8, do not use Table 2 and do not combine the annuitants' ages. Instead, the taxpayer must use Table 1 at the bottom of the worksheet and enter on line 3 the number shown for the primary annuitant's age on the annuity starting date. This number will differ depending on whether the annuity starting date is before November 19, 1996, or after November 18, 1996.

Fixed period annuity- If the annuity does not depend on anyone's life expectancy, the total number of expected monthly payments to enter on line 3 of the worksheet is the number of monthly annuity payments under the contract.

Example. Bill Kirkland, age 65, began receiving retirement benefits in 20x2 under a joint and survivor annuity. Bill's annuity starting date is January 1, 20x2. The benefits are to be paid for the joint lives of Bill and his wife, Kathy, age 65. Bill had contributed $31,000 to a qualified plan and had received no distributions before the annuity starting date. Bill is to receive a retirement benefit of $1,200 a month, and Kathy is to receive a monthly survivor benefit of $600 upon Bill's death. Bill must use the Simplified Method to figure his taxable annuity because his payments are from a qualified plan and he is under age 75. Because his annuity is payable over the lives of more than one annuitant, he uses his and Kathy's combined ages and Table 2 at the bottom of the worksheet in completing line 3 of the worksheet. His completed worksheet follows.

Simplified Method Worksheet		
1. Enter the total pension or annuity payments received this year. Also, add this amount to the total for Form 1040, line 16a, or Form 1040A, line 12a		$14,400
2. Enter your cost in the plan (contract) at annuity starting date Note: *If your annuity starting date was before this year and you completed this worksheet last year, skip line 3 and enter the amount from line 4 of last year's worksheet on line 4 below. Otherwise, go to line 3.*		31,000
3. Enter the appropriate number from Table 1 below. But if your annuity starting date was after 1997 and the payments are for your life and that of your beneficiary, enter the appropriate number from Table 2 below		310
4. Divide line 2 by line 3		100
5. Multiply line 4 by the number of months for which this year's payments were made. If your annuity starting date was before 1987, enter this amount on line 8 below and skip lines 6, 7, 10, and 11. Otherwise, go to line 6		1200
6. Enter any amounts previously recovered tax free in years after 1986		-0-
7. Subtract line 6 from line 2		31,000
8. Enter the lesser of line 5 or line 7		1,200
9. **Taxable amount for year.** Subtract line 8 from line 1. Enter the result, but not less than zero. Also add this amount to the total for Form 1040, line 16b, or Form 1040A, line 12b Note: *If your Form 1099R shows a larger taxable amount, use the amount on line 9 instead.*		$13,200
10. Add lines 6 and 8		1,200
11. Balance of cost to be recovered. Subtract line 10 from line 2		$29,800

Table 1 for Line 3 Above AND your annuity starting date was		
If the age at annuity starting date was. . .	before November 19, 1996, enter on line 3	after November 18, 1996, enter on line 3
55 or under	300	360
56–60	260	310
61–65	240	260
66–70	170	210
71 or older	120	160

Table 2 for Line 3 Above	
Combined ages at annuity starting date	Enter on line 3
110 and under	410
111–120	360
121–130	310
131–140	260
141 and over	210

Bill's tax-free monthly amount is $100 ($31,000 X 310 as shown on line 4 of the worksheet). Upon Bill's death, if Bill has not recovered the full $31,000 investment, Kathy will also exclude $100 from her $600 monthly payment. The full amount of any annuity payments received after 310 payments are paid must be included in gross income. If Bill and Kathy die before 310 payments are made, a miscellaneous itemized deduction will be allowed for the unrecovered cost on the final income tax return of the last to die. This deduction is not subject to the 2%-of-adjusted-gross-income limit.

Multiple annuitants. If the taxpayer and one or more other annuitants receive payments at the same time, he or she excludes from each annuity payment a pro-rata share of the monthly tax-free amount. Figure the taxpayer's share in the following steps.
1) Complete the worksheet through line 4 to figure the monthly tax-free amount.
2) Divide the amount of the monthly payment by the total amount of the monthly payments to all annuitants.
3) Multiply the amount on line 4 of the worksheet by the amount figured in (2) above.
The result is the taxpayer's share of the monthly tax-free amount. Replace the amount on line 4 of the worksheet with the result in (3) above. Enter that amount on line 4 of the worksheet each year.

General Rule

Under the General Rule, an individual determines the tax-free part of each annuity payment based on the ratio of the cost of the contract to the total expected return. Expected return is the total amount the taxpayer and other eligible annuitants can expect to receive under the contract. To figure it, a person must use life expectancy (actuarial) tables prescribed by the IRS.
Who must use the General Rule. The General Rule must be used if a person receives pension or annuity payments from:
1) A nonqualified plan (such as a private annuity, a purchased commercial annuity, or a nonqualified employee plan), or
2) A qualified plan if the person is age 75 or older on the annuity starting date and his or her annuity payments are guaranteed for at least 5 years.

Annuity starting before November 19, 1996- If an annuity starting date is after July 1, 1986, and before November 19, 1996, a person had to use the General Rule for either circumstance described above. An individual also had to use it for any fixed period annuity. If one did not have to use the General Rule, he or she could have chosen to use it. If the annuity starting date is before July 2, 1986, the taxpayer had to use the General Rule unless he or she could use the Three-Year Rule. If a person had to use the General Rule (or chose to use it), the taxpayer must continue to use it each year that cost is recovered.

Who cannot use the General Rule. A person cannot use the General Rule if he or she receives a pension or annuity from a qualified plan and none of the circumstances described in the preceding discussions applies to the taxpayer. See *Simplified Method,* earlier. See the chapter addressing the General Rule for more information.

Disability Retirement

If a person retired on disability, he or she must report the disability income as ordinary income. However, one may be entitled to a credit. See *Credit for Elderly or Disabled,* later.

Disability Payments

If an individual retired on disability, pension payments received are taxable as wages until he or she reaches *minimum retirement age.* Beginning on the day after a person reaches minimum retirement age, the payments are treated as a pension or annuity. At that time the taxpayer begin to recover the cost of the annuity under the rules discussed earlier.

Minimum retirement age- Minimum retirement age is the age at which a person could first receive an annuity if they were not disabled. The taxpayer must report all taxable disability payments on line 7, Form 1040 or Form 1040A, until he or she reach minimum retirement age.

Credit for Elderly or Disabled The taxpayer can take the credit for the elderly or the disabled if:

1) He or she are a *qualified individua*l, and
2) Their income is not more than certain limits.

An individual is qualified for this credit if he or she is a U.S. citizen or resident and, at the end of the tax year, the person is:

1) Age 65 or older, or
2) Under age 65, retired on permanent and total disability, and:
    a) Received taxable disability income, and
    b) Did not reach mandatory retirement age before the tax year.

If an individual retired after January 1, 1977, he or she is retired on permanent and total disability if:

1) He or she was permanently and totally disabled when upon retirement, and
2) He or she retired on disability before the close of the tax year.

Mandatory retirement age- Mandatory retirement age is the age set by an employer at which a person must retire. One is permanently and totally disabled if he or she cannot

engage in *any* substantial gainful activity because of their physical or mental condition. A physician must certify that the condition can be expected to result in death or that the condition has lasted (or can be expected to last) continuously at least 12 months.

Substantial gainful activity- Substantial gainful activity is the performance of significant duties over a reasonable period of time while working for pay or profit, or in work generally done for pay or profit.
Physician's statement- If a person is under 65, they must have a physician complete a statement certifying that the individual was permanently and totally disabled on the date of retirement. The individual can use the *Physician's Statement* in the instructions for Part II of either Schedule R (Form 1040) or Schedule 3 (Form 1040A). Keep this statement for the records. The taxpayer does not have to file it with their income tax return. The taxpayer does not have to get another physician's statement for the current year if certain exceptions apply (as described in the instructions for Schedule R and Schedule 3) and the box was checked on line 2 of Part II of either Schedule R (Form 1040) or Schedule 3 (Form 1040A).

Taxation of Nonperiodic Payments
This is an explanation of how any non-periodic distributions received under a pension or annuity plan are taxed. Nonperiodic distributions are also known as *amounts not received as an annuity.* They include all payments other than periodic payments and corrective distributions. For example, the following items are treated as nonperiodic distributions.

- Cash withdrawals.
- Distributions of current earnings (dividends) on investment. However, one does not include these distributions in his or her income to the extent the insurer keeps them to pay premiums or other consideration for the contract.
- Certain loans. See *Loans Treated as Distributions,* later.
- The value of annuity contracts transferred without full and adequate consideration. See *Transfers of Annuity Contract*s, later.

Corrective distributions of excess plan contributions. If the contributions made for an individual during the year to certain retirement plans exceed certain limits, the excess is taxable. To correct an excess, the plan may distribute it to the plan participant (along with any income earned on the excess). Although the plan reports the corrective distributions on Form 1099–R, the distribution is *not* treated as a nonperiodic distribution from the plan. It is not subject to the allocation rules explained in the following discussion, it cannot be rolled over into another plan, and it is not subject to the additional tax on early distributions. If the retirement plan made a corrective distribution of excess contributions (excess deferrals, excess contributions, or excess annual additions), the Form 1099–R should have the code "8," "D," "P," or "E" in box 7.

Figuring the Taxable Amount
How one figures the taxable amount of a nonperiodic distribution depends on whether it is made before the annuity starting date or on or after the annuity starting date. If it is made before the annuity starting date, its tax treatment also depends on whether it is made under a qualified or nonqualified plan and, if it is made under a nonqualified plan, whether it fully discharges the contract or is allocable to an investment made before August 14, 1982. A person may be able to roll over the taxable amount of a nonperiodic distribution from a qualified retirement plan into another qualified retirement plan or an IRA tax free. See Rollovers, later. If he or she does not make a tax-free rollover and the

distribution qualifies as a lump-sum distribution, they may be able to elect an optional method of figuring the tax on the taxable amount. See Lump-Sum Distributions, later.

Annuity starting date- The annuity starting date is either the first day of the first period for which a person receive an annuity payment under the contract or the date on which the obligation under the contract becomes fixed, whichever is later.

Distributions of employer securities If the plan participant receives a distribution of employer securities from a qualified retirement plan; he or she may be able to defer the tax on the ***net unrealized appreciation (NUA)*** in the securities. The NUA is the increase in the securities' value while they were in the trust. This tax deferral applies to distributions of the employer corporation's stocks, bonds, registered debentures, and debentures with interest coupons attached. If the distribution is a lump-sum distribution, tax is deferred on all of the NUA unless a person chooses to include it in the income for the year of the distribution. A lump sum distribution for this purpose is the distribution or payment of a plan participant's entire balance (within a single tax year) from all of the employer's qualified plans of one kind (pension, profit-sharing, or stock bonus plans), but only if paid:

1) Because of the plan participant's death,
2) After the participant reaches age 59½,
3) Because the participant, if an employee, separates from service, or
4) After the participant, if a self-employed individual, becomes totally and permanently disabled.

If a person chooses to include NUA in his or her income for the year of the distribution and the participant was born before 1936, he or she may be able to figure the tax on the NUA using the optional methods described under Lump-Sum Distributions, later.

If the distribution is not a lump-sum distribution, tax is deferred only on the NUA resulting from employee contributions other than deductible voluntary employee contributions. The NUA on which tax is deferred should be shown in box 6 of the Form 1099–R that is received from the payer of the distribution. When a person sells or exchanges employer securities with tax-deferred NUA, any gain is *long-term capital gain* up to the amount of the NUA. Any gain that is more than the NUA is long-term or short-term gain, depending on how long the securities were held after the distribution.

How to report- Enter the total amount of a nonperiodic distribution on line 16a of Form 1040 or line 12a of Form 1040A. Enter the taxable amount of the distribution on line 16b of Form 1040 or line 12b of Form 1040A. However, if an individual makes a tax-free rollover or elects an optional method of figuring the tax on a lump-sum distribution, see *How to report* in the discussions of those tax treatments, later.

Distribution On or After Annuity Starting Date

If a person receives a nonperiodic payment from an annuity contract *on or after the annuity starting date,* he or she generally must include all of the payment in gross income. For example, a cost-of-living increase in an individual's pension after the annuity starting date is an amount not received as an annuity and, as such, is fully taxable.

Reduction in subsequent payments- If the annuity payments a person receives are reduced because he or she received the nonperiodic distribution, an individual can

exclude part of the nonperiodic distribution from gross income. The part excluded is equal to the cost in the contract reduced by any tax-free amounts the taxpayer previously received under the contract, multiplied by a fraction. The numerator (top part of the fraction) is the reduction in each annuity payment because of the nonperiodic distribution. The denominator (bottom part of the fraction) is the full unreduced amount of each annuity payment originally provided for.

Single-sum in connection with the start of annuity payments. If an individual receives a single sum payment on or after the annuity starting date in connection with the start of annuity payments for which the taxpayer must use the Simplified Method, treat the single-sum payment as if it were received *before* the annuity starting date. (See *Simplified Method* under *Taxation of Periodic Payments,* earlier, for information on its required use.) Follow the rules in the next discussion, *Distribution Before Annuity Starting Date From a Qualified Plan.*

Distribution in full discharge of contract- The annuitant may receive an amount on or after the annuity starting date that fully satisfies the payer's obligation under the contract. The amount may be a refund of what was paid for the contract or for the complete surrender, redemption, or maturity of the contract. Include the amount in gross income only to the extent that it exceeds the remaining cost of the contract.

Distribution Before Annuity Starting Date From a Qualified Plan

If an individual receives a nonperiodic distribution *before* the annuity starting date from a *qualified retirement plan,* he or she generally can allocate only part of it to the cost of the contract. In such a case, one would exclude from gross income the part that was allocated to the cost. The taxpayer would include the remainder in gross income. For this purpose, a qualified retirement plan includes a:

1) Qualified employee plan (or annuity contract purchased by such a plan),
2) Qualified employee annuity plan,
3) Tax-sheltered annuity plan (403(b) plan).

Use the following formula to figure the tax-free amount of the distribution.

$$\text{Amount received X } \frac{Cost of Contract}{Account balance} = \text{Tax-free amount}$$

For this purpose, the account balance includes only amounts to which the annuitant has a nonforfeitable right (a right that cannot be taken away).

Example. Before she had a right to an annuity, Ann Blake received $50,000 from her retirement plan. She had $10,000 invested (cost) in the plan, and her account balance was $100,000. She can exclude $5,000 of the $50,000 distribution, figured as follows:

$$\$50{,}000 \text{ x } \frac{\$10{,}000}{\$100{,}000} = \$5{,}000$$

Defined contribution plan. Under a defined contribution plan, the contributions (and income allocable to them) may be treated as a separate contract for figuring the taxable part of any distribution. A defined contribution plan is a plan in which a person has an individual account. The plan participant's benefits are based only on the amount contributed to the account and the income, expenses, etc., allocated to the account.

Plans that permitted withdrawal of employee contributions- If a person contributed before 1987 to a pension plan that, as of May 5, 1986, permitted the plan participant to withdraw contributions before separation from service, any distribution before his or her annuity starting date is tax free to the extent that it, when added to earlier distributions received after 1986, does not exceed the cost as of December 31, 1986. Apply the allocation described in the preceding discussion only to any excess distribution.

Distribution Before Annuity Starting Date From a Nonqualified Plan

If a person receives a nonperiodic distribution before the annuity starting date from a plan ***other than*** a qualified retirement plan, it is allocated first to earnings (the taxable part) and then to the cost of the contract (the tax-free part). This allocation rule applies, for example, to a commercial annuity contract an individual bought directly from the issuer. The taxpayer includes in their gross income the smaller of:

- The nonperiodic distribution, or
- The amount by which the cash value of the contract (figured without considering any surrender charge) immediately before receipt of the distribution exceeds the person's investment in the contract at that time.

Example*.* You bought an annuity from an insurance company. Before the annuity starting date under your annuity contract, you received a $7,000 distribution. At the time of the distribution, the annuity had a cash value of $16,000 and your investment in the contract was $10,000. Because the distribution is allocated first to earnings, you must include $6,000 ($16,000 □$10,000) in your gross income. The remaining $1,000 is a tax-free return of part of your investment.

Exception to allocation rule- Certain nonperiodic distributions received before the annuity starting date are *not* subject to the allocation rule in the preceding discussion. Instead, the taxpayer includes the amount of the payment in gross income only to the extent that it exceeds the cost of the contract. This exception applies to the following distributions.

1) Distributions in full discharge of a contract that a person receives as a refund of what he or she paid for the contract or for the complete surrender, redemption, or maturity of the contract.
2) Distributions from life insurance or endowment contracts (other than modified endowment contracts, as defined in Internal Revenue Code section 7702A) that are not received as an annuity under the contracts.
3) Distributions under contracts entered into before August 14, 1982, to the extent that they are allocable to a person's investment before August 14, 1982.

If an individual bought an annuity contract and made investments both before August 14, 1982, and later, the distributed amounts are allocated to his or her investment or to earnings in the following order.

1) The part of the investment that was made before August 14, 1982. This part of the distribution is tax free.
2) The earnings on the part of the investment that was made before August 14, 1982. This part of the distribution is taxable.
3) The earnings on the part of a person's investment that was made after August 13, 1982. This part of the distribution is taxable.
4) The part of an investment that was made after August 13, 1982. This part of the distribution is tax free.

Distribution of U.S. Savings Bonds If a person receives U.S. savings bonds in a taxable distribution from a retirement plan, report the value of the bonds at the time of distribution as income. The value of the bonds includes accrued interest. When he or she cashes the bonds, their Form 1099–INT will show the total interest accrued, including the part which was reported when the bonds were distributed to the bondholder.

Loans Treated as Distributions

If a person borrows money from his or her retirement plan, the loan must be treated as a nonperiodic distribution from the plan unless it qualifies for the exception explained below. This treatment also applies to any loan under a contract purchased under a retirement plan, and to the value of any part of the interest in the plan or contract that an individual pledges or assigns (or agree to pledge or assign). It applies to loans from both qualified and nonqualified plans, including commercial annuity contracts purchased directly from the issuer. Further, it applies if a person renegotiates, extends, renews, or revises a loan that qualified for the exception below if the altered loan does not qualify. In that situation, the taxpayer must treat the outstanding balance of the loan as a distribution on the date of the transaction. He or she determines how much of the loan is taxable using the allocation rules for nonperiodic distributions discussed under *Figuring the Taxable Amount,* earlier. The taxable part may be subject to the additional tax on early distributions. It is not an eligible rollover distribution and does not qualify for the 10-year tax option.

Exception for qualified plan, 403(b) plan, and government plan loans. At least part of certain loans under a qualified employee plan, qualified employee annuity, tax-sheltered annuity (TSA) plan, or government plan is not treated as a distribution from the plan. This exception applies only to a loan that either:

- Is used to buy an individual's main home, or
- Must be repaid within 5 years.

To qualify for this exception, the loan must require substantially level payments at least quarterly over the life of the loan. If a loan qualifies for this exception, it must be treated as a nonperiodic distribution only to the extent that the loan, when added to the outstanding balances of all the participant's loans from all plans of the employer (and certain related employers) exceeds the lesser of:

1) $50,000, or
2) Half the present value (but not less than $10,000) of the nonforfeitable accrued benefit under the plan, determined without regard to any accumulated deductible employee contributions.

The taxpayer must reduce the $50,000 amount above if he or she already had an outstanding loan from the plan during the 1-year period ending the day before he or she took out the loan. The amount of the reduction is the highest outstanding loan balance during that period minus the outstanding balance on the date the borrower (taxpayer) took out the new loan. If this amount is zero or less, ignore it.

Related employers and related plans. Treat separate employers' plans as plans of a single employer if they are so treated under other qualified retirement plan rules because the employers are related. A plan participant must treat all plans of a single employer as one plan. Employers are related if they are:

1) Members of a controlled group of corporations,
2) Businesses under common control, or
3) Members of an affiliated service group.

An affiliated service group generally is two or more service organizations whose relationship involves an ownership connection. Their relationship also includes the regular or significant performance of services by one organization for or in association with another.

Denial of interest deduction- If the loan from a qualified plan is not treated as a distribution because the exception applies, a person cannot deduct any of the interest on the loan during any period that:

1) The loan is secured by amounts from elective deferrals under a qualified cash or deferred arrangement (section 401(k) plan) or a salary reduction agreement to purchase a tax-sheltered annuity, or
2) An individual is a key employee as defined in Internal Revenue Code section 416(i).

Key Employee Defined- A key employee is an employee or former employee who is one of the following individuals.

- An officer having annual pay of more than $130,000.
- An individual who for year in question was either of the following:
- A 5% owner of the business.
- A 1% owner of the business whose annual pay was more than $150,000.
- A former employee who was a key employee upon retirement or separation from service is also a key employee.

Reporting by plan. If a loan is treated as a distribution, the taxpayer should receive a Form 1099–R showing code "L" in box 7.

Effect on investment in the contract- If an individual received a loan under a qualified plan (a qualified employee plan or qualified employee annuity) or tax-sheltered annuity (TSA) plan that is treated as a nonperiodic distribution, the plan participant must reduce his or her investment in the contract to the extent that the distribution is tax free under the allocation rules for qualified plans explained earlier. Repayments of the loan increase a person's investment in the contract to the extent that the distribution is taxable under those rules. If an individual receives a loan under a nonqualified plan other than a TSA plan, including a commercial annuity contract that was purchase directly from the issuer, he or she increases their investment in the contract to the extent that the distribution is taxable under the general allocation rule for nonqualified plans explained earlier. Repayments of the loan do not affect the investment in the contract. However, if the distribution is accepted from the general allocation rule (for example, because it is made under a contract entered into before August 14, 1982), the individual reduces his or her investment in the contract to the extent that the distribution is tax-free and increases it for loan repayments to the extent that the distribution is taxable.

Transfers of Annuity Contracts

If a person transfers without full and adequate consideration an annuity contract issued

after April 22, 1987, the taxpayer is treated as receiving a nonperiodic distribution. The distribution equals the excess of:

1) The cash surrender value of the contract at the time of transfer, over
2) The cost of the contract at that time.

This rule does not apply to transfers between spouses or transfers incident to a divorce.

Tax-free exchange. No gain or loss is recognized on an exchange of an annuity contract for another annuity contract if the insured or annuitant remains the same. However, if an annuity contract is exchanged for a life insurance or endowment contract, any gain due to interest accumulated on the contract is ordinary income.

If a person transfers a full or partial interest in a tax-sheltered annuity that is not subject to restrictions on early distributions to another tax-sheltered annuity, the transfer qualifies for nonrecognition of gain or loss.

If the annuitant exchanges an annuity contract issued by a life insurance company that is subject to a rehabilitation, conservatorship, or similar state proceeding for an annuity contract issued by another life insurance company, the exchange qualifies for nonrecognition of gain or loss. The exchange is tax-free even if the new contract is funded by two or more payments from the old annuity contract. This also applies to an exchange of a life insurance contract for a life insurance, endowment, or annuity contract.

In general, a transfer or exchange in which a person receives ***cash proceeds*** from the surrender of one contract and invests the cash in another contract does not qualify for nonrecognition of gain or loss. However, no gain or loss is recognized if the cash distribution is from an insurance company that is subject to a rehabilitation, conservatorship, insolvency, or similar state proceeding. For the nonrecognition rule to apply, the taxpayer must also reinvest the proceeds in a single contract issued by another insurance company and the exchange of the contracts must otherwise qualify for nonrecognition. He or she must withdraw all the cash and reinvest it within 60 days. If the cash distribution is less than required for full settlement, the annuitant must assign all rights to any future distributions to the new issuer.
If the individual wants nonrecognition treatment for the cash distribution, the new issuer must be given the following information.

1) The amount of cash distributed.
2) The amount of the cash reinvested in the new contract.
3) The amount of the investment in the old contract on the date of the initial distribution.

A person must attach the following items to his or her timely filed income tax return for the year of the initial distribution.

1) A copy of the statement given to the new issuer.
2) A statement that contains the words "ELECTION UNDER REV. PROC. 92–44," the new issuer's name, and the policy number or similar identifying information for the new contract.

Tax-free exchange reported on Form 1099 –R. If one makes a tax-free exchange of an annuity contract for another annuity contract issued by a different company, the exchange will be shown on Form 1099–R with a code "6" in box 7.

Treatment of contract received. If an individual acquires an annuity contract in a tax-free exchange for another annuity contract, its date of purchase is the date the individual purchased the annuity which he or she exchanged. This rule applies for determining if the annuity qualifies for exemption from the tax on early distributions as an immediate annuity.

Lump-Sum Distributions

If someone receives a lump-sum distribution from a qualified retirement plan (a qualified employee plan or qualified employee annuity) and the plan participant was born before 1936, that person may be able to elect optional methods of figuring the tax on the distribution. The part from active participation in the plan before 1974 may qualify as capital gain subject to a 20% tax rate. The part from participation after 1973 (and any part from participation before 1974 that one does not report as capital gain) is ordinary income. The taxpayer may be able to use the 10-year tax option, discussed later, to figure tax on the ordinary income part.

Each individual, estate, or trust who receives part of a lump-sum distribution on behalf of a plan participant who was born before 1936 can choose whether to elect the optional methods for the part each received. However, if two or more trusts receive the distribution, the plan participant or the personal representative of a deceased participant must make the choice.

Use IRS Form 4972, *Tax on Lump-Sum Distributions,* to figure the separate tax on a lump-sum distribution using the optional methods. The tax figured on Form 4972 is added to the regular tax figured on other income. This may result in a smaller tax than someone would pay by including the taxable amount of the distribution as ordinary income in figuring his or her regular tax.

Alternate payee under qualified domestic relations order If a person receives a distribution as an alternate payee under a qualified domestic relations order (discussed earlier under *General Information*), he or she may be able to choose the optional tax computations for it. An individual can make this choice for a distribution that would be treated as a lump-sum distribution had it been received by a spouse or former spouse (the plan participant). However, for this purpose, the balance to the taxpayer's credit does not include any amount payable to the plan participant. If a person chooses an optional tax computation for a distribution received as an alternate payee, this choice will not affect any election for distributions from his or her own plan. If there is more than one recipient, one or all of the recipients of a lump-sum distribution can use the optional tax computations.

Lump-sum distribution defined. A lump-sum distribution is the distribution or payment of a plan participant's entire balance (within a single tax year) from all of the employer's qualified plans of one kind (pension, profit-sharing, or stock bonus plans). A distribution from a nonqualified plan (such as a privately purchased commercial annuity or a Section 457 deferred compensation plan of a state or local government or tax-exempt organization) cannot qualify as a lump-sum distribution. The participant's entire balance from a plan does not include certain forfeited amounts. It also does not include any deductible voluntary employee contributions allowed by the plan after 1981 and before 1987.

Reemployment. A separated employee's vested percentage in his or her retirement benefit may increase if the employer rehires him or her within 5 years following separation from service. This possibility does not prevent a distribution made before reemployment from qualifying as a lump-sum distribution. However, if the employee elected an optional method of figuring the tax on the distribution and his or her vested percentage in the previous retirement benefit increases after re-employment, the employee must recapture the tax saved. Increasing the tax for the year in which the increase in vesting first occurs does this.

Distributions that do not qualify- The following distributions do not qualify as lump-sum distributions for the capital gain or 10-year tax option.

1) Any distribution that is partially rolled over to another qualified plan or an IRA.
2) Any distribution if an earlier election to use either the 5- or 10-year tax option had been made after 1986 for the same plan participant.
3) U.S. Retirement Plan Bonds distributed with a lump sum.
4) Any distribution made during the first 5 tax years that the participant was in the plan, unless it was made because the participant died.
5) The current actuarial value of any annuity contract included in the lump sum. (The payer's statement should show this amount, which an individual uses only to figure tax on the ordinary income part of the distribution.)
6) Any distribution to a 5% owner that is subject to penalties under section 72(m)(5)(A).
7) A distribution from an IRA.
8) A distribution from a tax-sheltered annuity (section 403(b) plan).
9) A distribution of the redemption proceeds of bonds rolled over tax free to a qualified pension plan, etc., from a qualified bond purchase plan.
10) A distribution from a qualified plan if the participant or his or her surviving spouse previously received an eligible rollover distribution from the same plan (or another plan of the employer that must be combined with that plan for the lump-sum distribution rules) and the previous distribution was rolled over tax free to another qualified plan or an IRA.
11) A distribution from a qualified plan that received a rollover from an IRA (other than a conduit IRA), a governmental section 457 plan, or a section 403(b) tax-sheltered annuity on behalf of the plan participant.
12) A distribution from a qualified plan that received a rollover from another qualified plan on behalf of that plan participant's surviving spouse.
13) A corrective distribution of excess deferrals, excess contributions, excess aggregate contributions, or excess annual additions.
14) A lump-sum credit or payment from the Federal Civil Service Retirement System (or the Federal Employees Retirement System).

How to treat the distribution- If someone receives a lump-sum distribution from a qualified retirement plan, he or she may have the following options for how to treat the taxable part.

1) Report the part of the distribution from participation before 1974 as a capital gain (if qualified) and the part from participation after 1973 as ordinary income.
2) Report the part of the distribution from participation before 1974 as a capital gain (if qualified) and use the 10-year tax option to figure the tax on the part from participation after 1973 (if qualified).
3) Use the 10-year tax option to figure the tax on the total taxable amount (if

qualified).
4) Roll over all or part of the distribution. See *Rollovers,* later. No tax is currently due on the part rolled over. Report any part not rolled over as ordinary income.
5) Report the entire taxable part of the distribution as ordinary income on the tax return.

The first three options are explained in the following discussions.

Electing optional lump-sum treatment. An individual can choose to use the 10-year tax option or capital gain treatment only once after 1986 for any plan participant. If a person makes this choice, he or she cannot use either of these optional treatments for any future distributions for the participant. Form 4972 should be completed and attached to Form 1040 income tax return if the tax options have been chosen. If the plan participant received more than one lump-sum distribution for a plan participant during the year, he or she must add them together in the computation. If a married couple is filing a joint return and both have received a lump-sum distribution, each person should complete a separate Form 4972.
Time for choosing- A person must decide to use the tax options before the end of the time, including extensions, for making a claim for credit or refund of tax. This is usually 3 years after the date the return was filed or 2 years after the date the tax was paid, whichever is later. (Returns filed before their due date are considered filed on their due date.)
Changing your mind*.* A taxpayer can change his or her mind and decide not to use the tax options within the time period just discussed. If someone changes their mind, one should file Form 1040X, *Amended U.S. Individual Income Tax Return,* with a statement saying he or she does not want to use the optional lump-sum treatment. Any additional tax due to the change must be paid with the Form 1040X.
How to report- If an individual elects capital gain treatment (but not the 10-year tax option) for a lump-sum distribution, include the ordinary income part of the distribution on lines 16a and 16b of Form 1040. Enter the capital gain part of the distribution in Part II of Form 4972.

If the taxpayer elects the 10-year tax option, do not include any part of the distribution on lines 16a or 16b of Form 1040. Report the entire distribution in Part III of Form 4972 or, if capital gain treatment is also elected, report the capital gain part in Part II and the ordinary income part in Part III. Include the tax from lines 7 and 30 of Form 4972 on line 40 of Form 1040.

Taxable and tax-free parts of the distribution- The taxable part of a lump-sum distribution is the employer's contributions and income earned on the account. A person may recover his or her *cost* in the lump sum and any *net unrealized appreciation (NUA)* in employer securities tax-free.
Cost*.* In general, the cost is the total of:
1) The plan participant's nondeductible contributions to the plan,
2) The plan participant's taxable costs of any life insurance contract distributed,
3) Any employer contributions that were taxable to the plan participant, and
4) Repayments of any loans that were taxable to the plan participant.

This cost must be reduced by amounts previously distributed tax free.

NUA. The NUA in employer securities (box 6 of Form 1099–R) received as part of a

lump-sum distribution is generally tax free until the securities are sold or exchanged. (See *Distributions of employer securities* under *Figuring the Taxable Amount,* earlier.) However, if someone chooses to include the NUA in their income for the year of the distribution and there is an amount in box 3 of Form 1099–R, part of the NUA will qualify for capital gain treatment. Use the *NUA Worksheet* in the instructions for Form 4972 to find the part that qualifies.

Losses. An individual may be able to claim a loss on the return if he or she receives a lump-sum distribution that is less than the plan participant's cost. The plan participant must receive the distribution entirely in cash or worthless securities. The amount which can be claimed is the difference between the participant's cost and the amount of the cash distribution, if any.

To claim the loss, one must itemize deductions on Schedule A (Form 1040). Show the loss as a miscellaneous deduction subject to the 2%-of-adjusted-gross-income limit. The taxpayer is unable to claim a loss if he or she receives securities that are not worthless, even if the total value of the distribution is less than the plan participant's cost. Gain or loss is recognized only when the securities are sold or exchanged.

Capital Gain Treatment

Capital gain treatment applies only to the taxable part of a lump sum distribution resulting from participation in the plan before 1974. The amount treated as capital gain is taxed at a 20% rate. This treatment can only be elected once for any plan participant, and only if the plan participant was born before 1936. Complete Part II of Form 4972 to choose the 20% capital gain election.

Figuring the capital gain and ordinary income parts. Generally, figure the capital gain and ordinary income parts of a lump-sum distribution by using the following formulas:

Capital Gain

$$\text{Total Taxable Amount} \times \frac{\text{Months of active participation before 1974}}{\text{Total months of active Participation}}$$

Ordinary Income

$$\text{Total Taxable Amount} \times \frac{\text{Months of active participation after 1973}}{\text{Total months of active participation}}$$

In figuring the months of active participation before 1974, count as 12 months any part of a calendar year in which the plan participant actively participated under the plan. For active participation after 1973, count as one month any part of a calendar month in which the participant actively participated in the plan. The capital gain part should be shown in box 3 of Form 1099–R, *Distributions From Pensions, Annuities, Retirement or Profit-Sharing Plans, IRAs, Insurance Contracts, etc.,* or other statement given to the plan participant by the payer of the distribution.

Reduction for federal estate tax- If any federal estate tax (discussed under *Survivors*

and Beneficiaries, later) was paid on the lump sum distribution, the capital gain amount must be decreased by the amount of estate tax applicable to it. Follow the Form 4972 instructions for Part II, line 6, to figure the part of the estate tax applicable to the capital gain amount and the part applicable to the ordinary income. If a person does not make the capital gain election, enter on line 18 of Part III the estate tax attributable to both parts of the lump-sum distribution. For information on how to figure the estate tax attributable to the lump-sum distribution, get the instructions for IRS Form 706 or contact the administrator of the decedent's estate.

10-Year Tax Option

The 10-year tax option is a special formula used to figure a separate tax on the ordinary income part of a lump-sum distribution. The tax is paid only once, for the year in which a person receives the distribution, not over the next 10 years. This treatment can be elected only once for any plan participant, and only if the plan participant was born before 1936. The ordinary income part of the distribution is the amount shown in box 2a of the Form 1099–R given to the recipient by the payer, minus the amount, if any, shown in box 3. One can also treat the capital gain part of the distribution (box 3 of Form 1099–R) as ordinary income for the 10-year tax option if he or she does *not* choose capital gain treatment for that part. Complete Part III of Form 4972 to choose the 10-year tax option. The special tax rates shown in the instructions for Part III to figure the tax must be used.

Examples

The following examples show how to figure the separate tax on Form 4972.

Example 1. Robert Smith, who was born in 1945, retired from Crabtree Corporation. Robert withdrew the entire amount to his credit from the qualified plan. In December 2016, he received a total distribution of $175,000 ($25,000 of employee contributions plus $150,000 of employer contributions and earnings on all contributions).

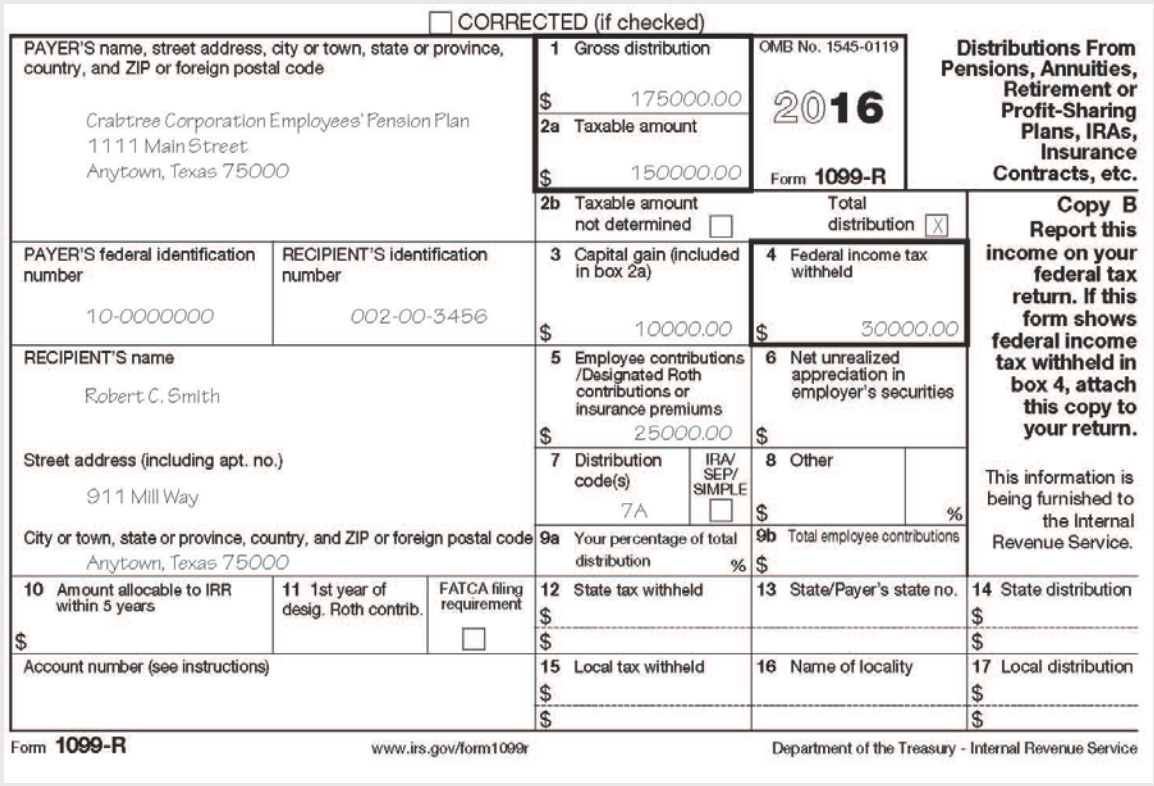
The payer gave Robert a Form 1099–R, which shows the capital gain part of the distribution (the part attributable to participation before 1974) to be $10,000. Robert elects 20% capital gain treatment for this part. A filled-in copy of Robert's Form 1099–R and Form 4972 follow. He enters $10,000 on Form 4972, Part II, line 6, and $2,000 ($10,000 x 20%) on Part II, line 7.

The ordinary income part of the distribution is $140,000 ($150,000 minus $10,000). Robert elects to figure the tax on this part using the 10-year tax option. He enters $140,000 on Form 4972, Part III, line 8. Then he completes the rest of Form 4972 and includes the tax of $24,270 in the total on the appropriate line of his Form 1040.

Example 2. Mary Brown, age 65, sold her business in 2016. She withdrew her entire interest in the profit-sharing plan (a qualified plan) that she had set up as the sole proprietor.

The cash part of the distribution, $160,000, is all ordinary income and is shown on her Form 1099–R at the end of this discussion. She chooses to figure the tax on this amount using the 10-year tax option. Mary also received an annuity contract as part of the distribution from the plan. Box 8, Form 1099–R, shows that the current actuarial

value of the annuity was $10,000. She enters these figures on Form 4972, which follows. After completing Form 4972, she includes the tax of $28,070 in the total on Form 1040.



☐ CORRECTED (if checked)

PAYER'S name, street address, city or town, state or province, country, and ZIP or foreign postal code	1 Gross distribution	OMB No. 1545-0119	Distributions From Pensions, Annuities, Retirement or Profit-Sharing Plans, IRAs, Insurance Contracts, etc.
Crabtree Corporation Employees' Pension Plan 1111 Main Street Anytown, Texas 75000	$ 175000.00	2016	
	2a Taxable amount $ 150000.00	Form 1099-R	
	2b Taxable amount not determined ☐	Total distribution ☒	Copy B Report this income on your federal tax return. If this form shows federal income tax withheld in box 4, attach this copy to your return.
PAYER'S federal identification number: 10-0000000	RECIPIENT'S identification number: 002-00-3456	3 Capital gain (included in box 2a) $ 10000.00	4 Federal income tax withheld $ 30000.00
RECIPIENT'S name: Robert C. Smith		5 Employee contributions /Designated Roth contributions or insurance premiums $ 25000.00	6 Net unrealized appreciation in employer's securities $
Street address (including apt. no.): 911 Mill Way		7 Distribution code(s): 7A; IRA/SEP/SIMPLE ☐	8 Other $ %
City or town, state or province, country, and ZIP or foreign postal code: Anytown, Texas 75000		9a Your percentage of total distribution %	9b Total employee contributions $
10 Amount allocable to IRR within 5 years $	11 1st year of desig. Roth contrib.	FATCA filing requirement ☐	12 State tax withheld $
Account number (see instructions)		15 Local tax withheld $	16 Name of locality
			17 Local distribution $

Form 1099-R www.irs.gov/form1099r Department of the Treasury - Internal Revenue Service

Form **4972**

Department of the Treasury
Internal Revenue Service (99)

Tax on Lump-Sum Distributions

(From Qualified Plans of Participants Born Before January 2, 1936)

► **Information about Form 4972 and its instructions is available at *www.irs.gov/form4972.***

► **Attach to Form 1040, Form 1040NR, or Form 1041.**

OMB No. 1545-0193

2016

Attachment Sequence No. **28**

Name of recipient of distribution	Identifying number
Robert C. Smith	002-03-3456

Part I **Complete this part to see if you can use Form 4972**

			Yes	No
1	Was this a distribution of a plan participant's entire balance (excluding deductible voluntary employee contributions and certain forfeited amounts) from all of an employer's qualified plans of one kind (for example, pension, profit-sharing, or stock bonus)? If "No," **don't** use this form	1	✓	
2	Did you roll over any part of the distribution? If "Yes," **don't** use this form	2		✓
3	Was this distribution paid to you as a beneficiary of a plan participant who was born before January 2, 1936?	3		✓
4	Were you **(a)** a plan participant who received this distribution, **(b)** born before January 2, 1936, **and (c)** a participant in the plan for at least 5 years before the year of the distribution? If you answered "No" to both questions 3 **and** 4, **don't** use this form.	4	✓	
5a	Did you use Form 4972 after 1986 for a previous distribution from your own plan? If "Yes," **don't** use this form for a 2016 distribution from your own plan	5a		✓
b	If you are receiving this distribution as a beneficiary of a plan participant who died, did you use Form 4972 for a previous distribution received as a beneficiary of that participant after 1986? If "Yes," **don't** use this form for this distribution	5b		

Part II **Complete this part to choose the 20% capital gain election** (see instructions)

6	Capital gain part from Form 1099-R, box 3	6	10,000
7	Multiply line 6 by 20% (0.20) ►	7	2,000
	If you also choose to use Part III, go to line 8. Otherwise, include the amount from line 7 in the total on Form 1040, line 44; Form 1040NR, line 42; or Form 1041, Schedule G, line 1b.		

Part III **Complete this part to choose the 10-year tax option** (see instructions)

8	If you completed Part II, enter the amount from Form 1099-R, box 2a minus box 3. If you didn't complete Part II, enter the amount from box 2a. Multiple recipients (and recipients who elect to include net unrealized appreciation (NUA) in taxable income) see instructions			8	140,000
9	Death benefit exclusion for a beneficiary of a plan participant who died before August 21, 1996			9	
10	Total taxable amount. Subtract line 9 from line 8			10	140,000
11	Current actuarial value of annuity from Form 1099-R, box 8. If none, enter -0-			11	-0-
12	Adjusted total taxable amount. Add lines 10 and 11. If this amount is $70,000 or more, **skip** lines 13 through 16, enter this amount on line 17, and go to line 18			12	140,000
13	Multiply line 12 by 50% (0.50), but **don't** enter more than $10,000	13			
14	Subtract $20,000 from line 12. If line 12 is $20,000 or less, enter -0-	14			
15	Multiply line 14 by 20% (0.20)	15			
16	Minimum distribution allowance. Subtract line 15 from line 13			16	
17	Subtract line 16 from line 12			17	140,000
18	Federal estate tax attributable to lump-sum distribution			18	
19	Subtract line 18 from line 17. If line 11 is zero, **skip** lines 20 through 22 and go to line 23			19	140,000
20	Divide line 11 by line 12 and enter the result as a decimal (rounded to at least three places)	20	.		
21	Multiply line 16 by the decimal on line 20	21			
22	Subtract line 21 from line 11	22			
23	Multiply line 19 by 10% (0.10)			23	14,000
24	Tax on amount on line 23. Use the Tax Rate Schedule in the instructions			24	2,227
25	Multiply line 24 by 10.0. If line 11 is zero, **skip** lines 26 through 28, enter this amount on line 29, and go to line 30			25	22,270
26	Multiply line 22 by 10% (0.10)	26			
27	Tax on amount on line 26. Use the Tax Rate Schedule in the instructions	27			
28	Multiply line 27 by 10.0			28	
29	Subtract line 28 from line 25. Multiple recipients see instructions ►			29	22,270
30	**Tax on lump-sum distribution.** Add lines 7 and 29. Also include this amount in the total on Form 1040, line 44; Form 1040NR, line 42; or Form 1041, Schedule G, line 1b ►			30	24,270

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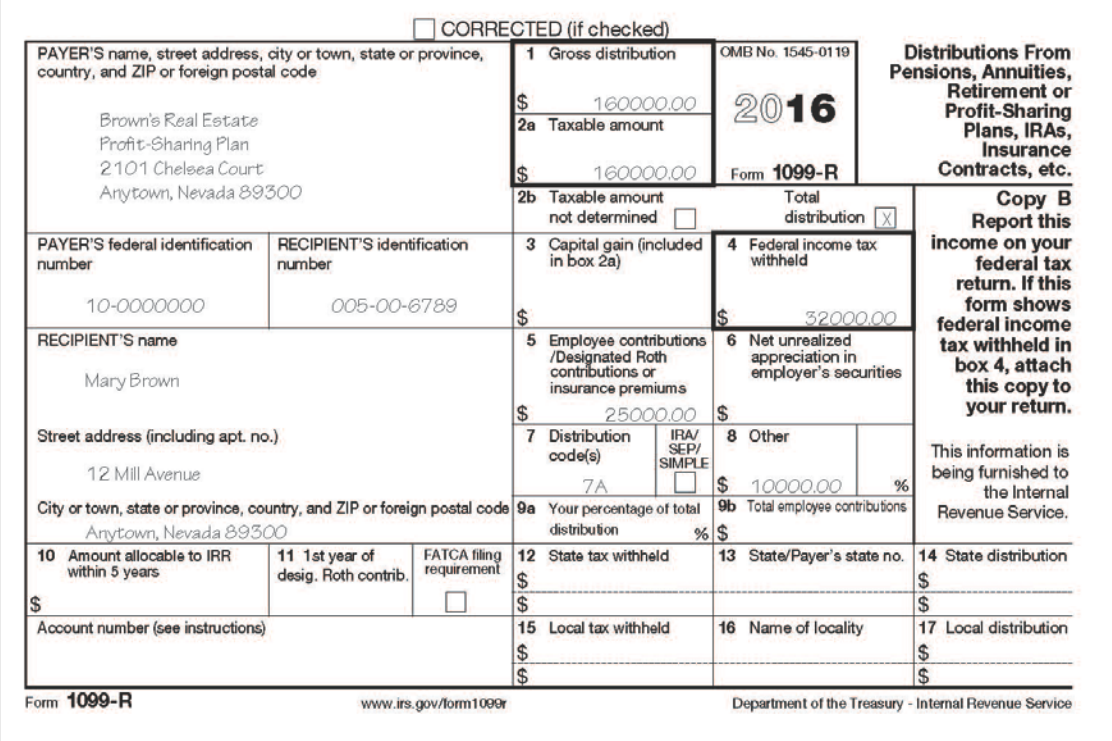

☐ CORRECTED (if checked)

PAYER'S name, street address, city or town, state or province, country, and ZIP or foreign postal code	1 Gross distribution	OMB No. 1545-0119	Distributions From Pensions, Annuities, Retirement or Profit-Sharing Plans, IRAs, Insurance Contracts, etc.
Brown's Real Estate Profit-Sharing Plan 2101 Chelsea Court Anytown, Nevada 89300	$ 160000.00	2016	
	2a Taxable amount $ 160000.00	Form 1099-R	
	2b Taxable amount not determined ☐	Total distribution ☒	Copy B Report this income on your federal tax return. If this form shows federal income tax withheld in box 4, attach this copy to your return.
PAYER'S federal identification number: 10-0000000	RECIPIENT'S identification number: 005-00-6789	3 Capital gain (included in box 2a) $	4 Federal income tax withheld $ 32000.00
RECIPIENT'S name: Mary Brown		5 Employee contributions /Designated Roth contributions or insurance premiums $ 25000.00	6 Net unrealized appreciation in employer's securities $
Street address (including apt. no.): 12 Mill Avenue		7 Distribution code(s): 7A; IRA/SEP/SIMPLE ☐	8 Other $ 10000.00 %	This information is being furnished to the Internal Revenue Service.
City or town, state or province, country, and ZIP or foreign postal code: Anytown, Nevada 89300		9a Your percentage of total distribution %	9b Total employee contributions $
10 Amount allocable to IRR within 5 years $	11 1st year of desig. Roth contrib.	FATCA filing requirement ☐	12 State tax withheld $
			13 State/Payer's state no.
			14 State distribution $
Account number (see instructions)		15 Local tax withheld $	16 Name of locality
			17 Local distribution $

Form 1099-R www.irs.gov/form1099r Department of the Treasury - Internal Revenue Service

Rollovers

If a person withdraws cash or other assets from a qualified retirement plan in an eligible rollover distribution, he or she can defer tax on the distribution by rolling it over to another qualified retirement plan or a traditional IRA. The taxpayer does not include the amount rolled over in their income until receiving it in a distribution from the recipient plan or IRA without rolling over that distribution. If the distribution is rolled over to a traditional IRA, one cannot deduct the amount rolled over as an IRA contribution. When later it is withdrawn from the IRA, an individual cannot use the optional methods discussed earlier under *Lump-Sum Distributions* to figure the tax. A qualified retirement plan is a qualified pension, profit-sharing, or stock bonus plan, or a qualified annuity plan. To determine whether a particular plan is a qualified plan, one should check with his or her employer or the plan administrator.

Self-employed individuals are generally treated as employees for the rules on the tax treatment of distributions, including the rules for rollovers.

Qualified retirement plan. For this purpose, the following plans are qualified retirement plans.

- A qualified employee plan
- A qualified employee annuity
- A tax-sheltered annuity plan (403(b) plan).
- An eligible state or local government section 457 deferred compensation plan.

Form **4972**

Department of the Treasury
Internal Revenue Service (99)

Tax on Lump-Sum Distributions

(From Qualified Plans of Participants Born Before January 2, 1936)

► Information about Form 4972 and its instructions is available at *www.irs.gov/form4972.*

► Attach to Form 1040, Form 1040NR, or Form 1041.

OMB No. 1545-0193

2016

Attachment Sequence No. **28**

Name of recipient of distribution	Identifying number
Mary Brown	005-00-6789

Part I Complete this part to see if you can use Form 4972

			Yes	No
1	Was this a distribution of a plan participant's entire balance (excluding deductible voluntary employee contributions and certain forfeited amounts) from all of an employer's qualified plans of one kind (for example, pension, profit-sharing, or stock bonus)? If "No," **don't** use this form	1	✓	
2	Did you roll over any part of the distribution? If "Yes," **don't** use this form	2		✓
3	Was this distribution paid to you as a beneficiary of a plan participant who was born before January 2, 1936?	3		✓
4	Were you **(a)** a plan participant who received this distribution, **(b)** born before January 2, 1936, **and (c)** a participant in the plan for at least 5 years before the year of the distribution? If you answered "No" to both questions 3 **and** 4, **don't** use this form.	4	✓	
5a	Did you use Form 4972 after 1986 for a previous distribution from your own plan? If "Yes," **don't** use this form for a 2016 distribution from your own plan	5a		✓
b	If you are receiving this distribution as a beneficiary of a plan participant who died, did you use Form 4972 for a previous distribution received as a beneficiary of that participant after 1986? If "Yes," **don't** use this form for this distribution	5b		

Part II Complete this part to choose the 20% capital gain election (see instructions)

6	Capital gain part from Form 1099-R, box 3		6	
7	Multiply line 6 by 20% (0.20) ►		7	
	If you also choose to use Part III, go to line 8. Otherwise, include the amount from line 7 in the total on Form 1040, line 44; Form 1040NR, line 42; or Form 1041, Schedule G, line 1b.			

Part III Complete this part to choose the 10-year tax option (see instructions)

8	If you completed Part II, enter the amount from Form 1099-R, box 2a minus box 3. If you didn't complete Part II, enter the amount from box 2a. Multiple recipients (and recipients who elect to include net unrealized appreciation (NUA) in taxable income) see instructions			8	160,000	
9	Death benefit exclusion for a beneficiary of a plan participant who died before August 21, 1996			9		
10	Total taxable amount. Subtract line 9 from line 8			10	160,000	
11	Current actuarial value of annuity from Form 1099-R, box 8. If none, enter -0-			11	10,000	
12	Adjusted total taxable amount. Add lines 10 and 11. If this amount is $70,000 or more, **skip** lines 13 through 16, enter this amount on line 17, and go to line 18			12	170,000	
13	Multiply line 12 by 50% (0.50), but **don't** enter more than $10,000		13			
14	Subtract $20,000 from line 12. If line 12 is $20,000 or less, enter -0-	14				
15	Multiply line 14 by 20% (0.20)		15			
16	Minimum distribution allowance. Subtract line 15 from line 13			16		
17	Subtract line 16 from line 12			17	170,000	
18	Federal estate tax attributable to lump-sum distribution			18		
19	Subtract line 18 from line 17. If line 11 is zero, **skip** lines 20 through 22 and go to line 23			19	170,000	
20	Divide line 11 by line 12 and enter the result as a decimal (rounded to at least three places)		20	.0588		
21	Multiply line 16 by the decimal on line 20		21			
22	Subtract line 21 from line 11		22	10,000		
23	Multiply line 19 by 10% (0.10)			23	17,000	
24	Tax on amount on line 23. Use the Tax Rate Schedule in the instructions			24	2,917	
25	Multiply line 24 by 10.0. If line 11 is zero, **skip** lines 26 through 28, enter this amount on line 29, and go to line 30			25	29,170	
26	Multiply line 22 by 10% (0.10)		26	1,000		
27	Tax on amount on line 26. Use the Tax Rate Schedule in the instructions		27	110		
28	Multiply line 27 by 10.0			28	1,100	
29	Subtract line 28 from line 25. Multiple recipients see instructions ►			29	28,070	
30	**Tax on lump-sum distribution.** Add lines 7 and 29. Also include this amount in the total on Form 1040, line 44; Form 1040NR, line 42; or Form 1041, Schedule G, line 1b ►			30	28,070	

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Eligible rollover distribution- An eligible rollover distribution is any distribution of all or any part of the balance to the taxpayer's credit in a qualified retirement plan ***except***:

1.) Any of a series of substantially equal distributions paid at least once a year over:
   a) The plan participant's lifetime or life expectancy,
   b) The joint lives or life expectancies of the participant and beneficiary, or
   c) A period of 10 years or more
2) A required minimum distribution, discussed later under *Tax on Excess Accumulation,*
3) Hardship distributions,
4.) Corrective distributions of excess contributions or excess deferrals, and any income allocable to the excess, or of excess annual additions and any allocable gains (see *Corrective distributions of excess plan contributions,* at the beginning of *Taxation of Nonperiodic Payments,* earlier),
5.) A loan treated as a distribution because it does not satisfy certain requirements either when made or later (such as upon default), unless the participant's accrued benefits are reduced (offset) to repay the loan (see *Loans Treated as Distributions,* earlier),
6.) Dividends on employer securities, and
7) The cost of life insurance coverage.

In addition, a distribution to the plan participant's beneficiary is not generally treated as an eligible rollover distribution. However, see *Qualified domestic relations order* and *Rollover by surviving spous*e, later.

Rollover of nontaxable amounts- A person may be able to roll over the nontaxable part of a distribution (such as the after-tax contributions) made to another qualified retirement plan or traditional IRA. The transfer must be made either through a direct rollover to a qualified plan that separately accounts for the taxable and nontaxable parts of the rollover or through a rollover to a traditional IRA.

If one were to rollover only part of a distribution that includes both taxable and nontaxable amounts, the amount rolled over is treated as coming first from the taxable part of the distribution.

Withholding requirements. If an eligible rollover distribution is paid to someone, the payer must withhold 20% of it. This applies even if the recipient plans to roll over the distribution to another qualified retirement plan or to an IRA. However, withholding can be avoided by choosing the *direct rollover option,* discussed next. Also, see *Choosing the right option* at the end of this discussion.
Exceptions. An eligible rollover distribution is not subject to withholding to the extent it consists of net unrealized appreciation from employer securities that can be excluded from gross income. (For a discussion of the tax treatment of a distribution of employer securities, see *Figuring the Taxable Amount* under *Taxation of Nonperiodic Payments,* earlier.) In addition, withholding from an eligible rollover distribution paid to someone is not required if:
1) The distribution and all previous eligible rollover distributions an individual received during the tax year from the same plan (or, at the payer's option, from all employer's plans) total less than $200, or
2) The distribution consists solely of employer securities, plus cash of $200 or less in lieu of fractional shares.

Direct rollover option. The recipient can choose to have any part or all of an eligible rollover distribution paid directly to another qualified retirement plan that accepts rollover

distributions or to a traditional IRA.

No tax withheld. If an individual chooses the direct rollover option, no tax will be withheld from any part of the distribution that is directly paid to the trustee of the other plan. If any part of the eligible rollover distribution is paid directly to someone, the payer must generally withhold 20% of it for income tax.

Payment to plan participant option- If an eligible rollover distribution is paid to the plan participant, 20% generally will be withheld for income tax. However, the full amount is treated as distributed to an individual even though he or she actually received only 80%. The recipient must include in income any part (including the part withheld) that they do not roll over within 60 days to another qualified retirement plan or to a traditional IRA. If an individual is under age 59½ when a distribution is paid, he or she may have to pay a 10% tax (in addition to the regular income tax) on the taxable part (including any tax withheld) that was not rolled over. See *Tax on Early Distributions,* later.

Partial rollovers*.* If a person receives a lump-sum distribution, it may qualify for special tax treatment. See *Lump Sum Distributions,* earlier. However, if the taxpayer rolls over any part of the distribution, the part kept does *not* qualify for special tax treatment.

Rolling over more than amount received*.* If the part of the distribution a person wants to roll over exceeds (due to the tax withholding) the amount actually received, he or she will have to get funds from some other source (such as savings or borrowed amounts) to add to the amount they actually received.

Example. You receive an eligible rollover distribution of $10,000 from your employer's qualified plan. The payer withholds $2,000, so you actually receive $8,000. If you want to roll over the entire $10,000 to postpone including that amount in your income, you will have to get $2,000 from some other source to add to the $8,000 you actually received. If you roll over only $8,000, you must include the $2,000 not rolled over in your income for the distribution year. Also, you may be subject to the 10% additional tax on the $2,000 if it was distributed to you before you reached age 59½.

Time for making rollover- A person must complete the rollover of an eligible rollover distribution paid to him or her by the 60th day following the day on which the distribution was received from the employer's plan.

Example. In the previous example, the plan participant received the distribution on June 30, 20x1. To postpone including it in income, he or she must complete the rollover by August 29, 20x1, the 60th day following June 30.

Frozen deposits*.* If an amount distributed to the taxpayer becomes a frozen deposit in a financial institution during the 60-day period after it is received, the rollover period is extended. An amount is a frozen deposit if one cannot withdraw it because of either:

1) The bankruptcy or insolvency of the financial institution, or
2) A restriction on withdrawals by the state in which the institution is located because of the bankruptcy or insolvency (or threat of it) of one or more financial institutions in the state.

The 60-day rollover period is extended by the period for which the amount is a frozen deposit and does not end earlier than 10 days after the amount is no longer a frozen

deposit.

Retirement bonds. If someone redeems retirement bonds purchased under a qualified bond purchase plan, he or she can roll over the proceeds that exceed their basis tax free into an IRA or qualified employer plan. Subsequent distributions of those proceeds, however, do not qualify for the 10-year tax option or capital gain treatment.

Annuity contracts. If an annuity contract was distributed to a plan participant by a qualified retirement plan, he or she can roll over an amount paid under the contract that is otherwise an eligible rollover distribution. For example, a person can roll over a single sum payment received upon surrender of the contract to the extent it is taxable and is not a required minimum distribution.

Rollovers of property- To roll over an eligible rollover distribution of property, an individual must either roll over the actual property distributed or sell it and roll over the proceeds. The recipient cannot keep the distributed property and roll over cash or other property. If the distributed property is sold and all the proceeds rolled over, no gain or loss is recognized on the sale. The sale proceeds (including any portion representing an increase in value) are treated as part of the distribution and are not included in gross income. If someone rolls over only part of the proceeds, he or she is taxed on the part kept. One must allocate the proceeds which were kept between the part representing ordinary income from the distribution (its value upon distribution) and the part representing gain or loss from the sale (its change in value from its distribution to its sale).

Example 1*.* On September 6, 20x2, Paul received an eligible rollover distribution from his employer's noncontributory qualified retirement plan of $50,000 in nonemployer stock. On September 27, 20x2, he sold the stock for $60,000. On October 4, 20x2, he contributed $60,000 cash to a traditional IRA. Paul does not include either the $50,000 eligible rollover distribution or the $10,000 gain from the sale of the stock in his income. The entire $60,000 rolled over will be ordinary income when he withdraws it from his IRA.

Example 2*.* The facts are the same as in Example 1, except that Paul sold the stock for $40,000 and contributed $40,000 to the IRA. Paul does not include the $50,000 eligible rollover distribution in his income and does not deduct the $10,000 loss from the sale of the stock. The $40,000 rolled over will be ordinary income when he withdraws it from his IRA.

Example 3*.* The facts are the same as in Example 1, except that Paul rolled over only $45,000 of the $60,000 proceeds from the sale of the stock. The $15,000 proceeds he did not roll over includes part of the gain from the stock sale. Paul reports $2,500 ($10,000/$60,000 X $15,000) capital gain and $12,500 ($50,000/$60,000 X $15,000) ordinary income.

Example 4*.* The facts are the same as in Example 2, except that Paul rolled over only $25,000 of the $40,000 proceeds from the sale of the stock. The $15,000 proceeds he did not roll over includes part of the loss from the stock sale. Paul reports $3,750 ($10,000/$40,000 X $15,000) capital loss and $18,750 ($50,000/$40,000 X $15,000) ordinary income.

Property and cash distributed. If both cash and property were distributed and the recipient did not roll over the entire distribution, he or she may designate what part of the rollover is allocable to the cash distribution and what part is allocable to the proceeds from the sale of the distributed property. If the distribution included an amount that is not taxable (other than the net unrealized appreciation in employer securities) as well as an eligible rollover distribution, a person may also designate what part of the nontaxable amount is allocable to the cash distribution and what part is allocable to the property. The designation must be made by the due date for filing of the taxpayer's return, including extensions. The taxpayer cannot change his or her designation after that date. If the subject individual does not make a designation on time, the rollover amount or the nontaxable amount must be allocated on a ratable basis.

Tax-sheltered annuity plan. The preceding rules also apply to distributions from tax-sheltered annuity plans, except that eligible rollover distributions from a tax-sheltered annuity plan cannot be rolled over into a qualified retirement plan. Instead, they can be rolled over into another tax-sheltered annuity plan or into a traditional IRA. For more information on the tax treatment of distributions from a tax-sheltered annuity plan, see the information under Section 403(b) plans.

Qualified domestic relations order. A person may be able to roll over tax free all or part of a distribution from a qualified retirement plan that was received under a qualified domestic relations order. (See *Qualified domestic relations order* under *General Information,* earlier.) If someone receives the distribution as an employee's spouse or former spouse (not as a nonspousal beneficiary), the rollover rules apply as if he or she were the employee.

Rollover by surviving spouse. The taxpayer may be able to roll over tax free all or part of a distribution from a qualified retirement plan received as the surviving spouse of a deceased employee. The rollover rules apply to the subject individual as if he or she were the employee, except that the distribution can be rolled over only into a traditional IRA. It cannot be rolled over into a qualified retirement plan. A distribution paid to a beneficiary other than the employee's surviving spouse is not an eligible rollover distribution.

How to report. Enter the total distribution (before income tax or other deductions were withheld) on line 16a of Form 1040 or line 12a of 1040A. This amount should be shown in box 1 of Form 1099–R. From this amount, subtract any contributions (usually shown in box 5 of Form 1099–R) that were taxable when made. From that result, subtract the amount that was rolled over either directly or within 60 days of receiving the distribution. Enter the remaining amount, even if zero, on line 16b of Form 1040 or line 12b of Form 1040A. Also, put "Rollover" next to line 16b on Form 1040 or line 12b of Form 1040A.

Written explanation to recipients. The administrator of a qualified retirement plan must, within a reasonable period of time before making an eligible rollover distribution, provide a written explanation to the plan participant. It must tell the individual about:

1) His or her right to have the distribution paid tax-free directly to another qualified retirement plan or to a traditional IRA,
2) The requirement to withhold tax from the distribution if it is not directly rolled over,
3) The nontaxability of any part of the distribution paid to that the person rolls over within 60 days after he or she receives the distribution, and
4) The other qualified retirement plan rules that apply, including those for lump-sum

distributions, alternate payees, and cash or deferred arrangements.
5) How the distribution rules of the plan to which the distribution is rolled over may differ from the rules that apply to the plan making the distribution in their restrictions and tax consequences.

Reasonable period of time. The plan administrator must provide a person with a written explanation no earlier than 90 days and no later than 30 days before the distribution is made. However, one can choose to have a distribution made less than 30 days after the explanation is provided as long as the following two requirements are met.
1) He or she must have the opportunity to consider whether or not they want to make a direct rollover for at least 30 days after the explanation is provided.
2) The information received must clearly state that the plan participant has the right to have 30 days to make a decision. The plan administrator should be contacted if there arise any questions regarding this information.

Choosing the right option. The following comparison chart may help an individual decide which distribution option to choose. One should carefully compare the tax effects of each and choose the option that is best.

Comparison Chart		
Affected item	**Result of a payment to you**	**Result of a direct rollover**
Withholding	The payer must withhold 20% of the taxable part	There is no withholding
Additional tax.	If one is under age 59½, a 10% additional tax may apply to the taxable part (including an amount equal to the tax withheld) that is not rolled over	There is no 10% additional tax. See *Tax on Early Distributions,* later
When to report as income	Any taxable part (including the taxable part of any amount withheld) not rolled over is income to taxpayer in the year paid.	Any taxable part is not income to the taxpayer until later distributed to him or her from the new plan or IRA

Survivors and Beneficiaries

Generally, a survivor or beneficiary reports pension or annuity income in the same way the plan participant reports it. The amount paid to the surviving spouse must be no less than 50% and no greater than 100% of the amount of the annuity paid during the participant's life. However, some special rules apply, and they are covered elsewhere in this section.

Estate tax deduction. The part of the total estate tax that was based on the annuity can be deducted, provided that the decedent died after his or her annuity starting date. (See sec 1.691(d)–1 of IRS Regulations.) It should be deducted in equal amounts over the remaining life expectancy of the survivor. The estate tax deduction can be taken as an itemized deduction on Schedule A, Form 1040. This deduction is not subject to the

2%-of-adjusted-gross-income limit on miscellaneous deductions.

Survivors of employees. Distributions the beneficiary of a deceased employee gets may be accrued salary payments, distributions from employee profit-sharing, pension, annuity, and stock bonus plans, or other items. Some of these should be treated separately for tax purposes. The treatment of these distributions depends on what they represent.

Salary or wages paid after the death of the employee are usually the beneficiary's ordinary income. If a person is a beneficiary of an employee who was covered by any of the retirement plans mentioned, he or she can exclude from income nonperiodic distributions received that totally relieve the payer from the obligation to pay an annuity. The amount that can be excluded is equal to the deceased employee's investment in the contract (cost).

If someone is entitled to receive a survivor annuity on the death of an employee, he or she can exclude part of each annuity payment as a tax-free recovery of the employee's investment in the contract. The taxpayer must figure the tax-free part of each payment using the method that applies as if he or she were the employee. For more information, see *Taxation of Periodic Payments,* earlier.

If the employee died before August 21,1996, *the amount of the employee's investment in the contract is increased by the death benefit exclusion. Use the increased amount to figure the tax-free part of payments that were received from the employee's retirement plan.*

Survivors of retirees. Benefits paid to an individual as a survivor under a joint and survivor annuity must be included in his or her gross income. Include them in income in the same way the retiree would have included them in gross income. See *Partly Taxable Payments* under *Taxation of Periodic Payments,* earlier.

If the retiree reported the annuity under the Three-Year Rule and had recovered all of its cost before death, their survivor payments are fully taxable. If the retiree was reporting the annuity under the General Rule, he or she must apply the same exclusion percentage to their initial survivor annuity payment called for in the contract. The resulting tax-free amount will then remain fixed. Increases in the survivor annuity are fully taxable. If the retiree was reporting the annuity under the Simplified Method, the part of each payment that is tax free is the same as the tax-free amount figured by the retiree at the annuity starting date. See *Simplified Method* under *Taxation of Periodic Payments,* earlier.

Guaranteed payments. If someone receives guaranteed payments as the decedent's beneficiary under a life annuity contract, do not include any amount in his or her gross income until the distributions plus the tax-free distributions received by the life annuitant equal the cost of the contract. All later distributions are fully taxable. This rule does *not* apply if it is possible for the life annuitant to collect more than the guaranteed amount. For example, it does not apply to payments under a joint and survivor annuity.

Special Additional Taxes

To discourage the use of pension funds for purposes other than normal retirement, the law imposes additional taxes on certain distributions of those funds and on failures to withdraw the funds timely. Ordinarily, an individual will not be subject to these taxes if he or she rolls over all early distributions received, as explained earlier, and begins drawing out the funds at a normal retirement age, in reasonable amounts over the person's life expectancy. These special additional taxes are the taxes on:

- Early distributions, and
- Excess accumulation (not receiving minimum distributions).

These taxes are discussed in the following sections. If one must pay either of these taxes, they are to be reported on Form 5329 , *Additional Taxes Attributable to IRAs, Other Qualified Retirement Plans, Annuities, Modified Endowment Contracts, and MSAs.* However, the taxpayer does not have to file Form 5329 if he or she owes only the tax on early distributions and Form 1099–R shows a "1" in box 7. Instead, enter 10% of the taxable part of the distribution on line 54 of Form 1040 and write "No" on the dotted line next to line 54. Even if the subject individual does not owe any of these taxes, he or she may have to complete Form 5329 and attach it to Form 1040. This applies if a person received an early distribution and their Form 1099–R does not show distribution code "2," "3," or "4" in box 7 (or the code number shown is incorrect).

Tax on Early Distributions

Most distributions (both periodic and nonperiodic) from qualified retirement plans and deferred annuity contracts made to an individual before he or she reaches age 59½ are subject to an additional tax of 10%. This tax applies to the part of the distribution that the recipient must include in gross income. It does *not* apply to any part of a distribution that is tax free, such as amounts that represent a return of cost or that were rolled over to another retirement plan. It also does not apply to corrective distributions of excess deferrals, excess contributions, or excess aggregate contributions (discussed earlier at the beginning of *Taxation of Nonperiodic Payment*s). For this purpose, a qualified retirement plan is:

1) A qualified employee plan (including a qualified cash or deferred arrangement (CODA) under Internal Revenue Code section 401(k)),
2) A qualified employee annuity plan,
3) A tax-sheltered annuity plan (403(b) plan), or
4) An eligible state or local government section 457 deferred compensation plan (to the extent that any distribution is attributable to amounts the plan received in a direct transfer or rollover from one of the other plans listed here).

5% rate on certain early distributions from deferred annuity contracts. If an early withdrawal from a deferred annuity is otherwise subject to the 10% additional tax, a 5% rate may apply instead. A 5% rate applies to distributions under a written election providing a specific schedule for the distribution of the annuitant's interest in the contract if, as of March 1, 1986, the annuitant had begun receiving payments under the election. On line 4 of Form 5329, multiply by 5% instead of 10%. An explanation should be attached to the return.

Exceptions to tax. Certain early distributions are excepted from the early distribution tax. If the payer knows that an exception applies to his or her early distribution,

distribution code "2," "3," or "4" should be shown in box 7 of Form 1099–R and the taxpayer does not have to report the distribution on Form 5329. If an exception applies but distribution code "1" (early distribution, no known exception) is shown in box 7, Form 5329 must be filed. One should enter the taxable amount of the distribution shown in box 2a of Form 1099–R on line 1 of Form 5329. On line 2, enter the amount that can be excluded and the exception number shown in the Form 5329 instructions.

If distribution code "1" is incorrectly shown on the Form 1099–R for a distribution received when an individual was age 59½ or older, that distribution should be included on Form 5329. Enter exception number "11" on line 2.

The early distribution tax does not apply to any distribution that meets one of the following exceptions.

General exceptions. The tax does not apply to distributions that are:

• Made as part of a series of substantially equal periodic payments (made at least annually) for the life (or life expectancy) or the joint lives (or joint life expectancies) of the plan participant and his or her beneficiary (if from a qualified retirement plan the payments must begin after the individual's separation from service),
• Made because a person is totally and permanently disabled, or
• Made on or after the death of the plan participant or contract holder.

Additional exceptions for qualified retirement plans. The tax does not apply to distributions that are:
• From a qualified retirement plan (other than an IRA) after separation from service in or after the year someone reached age 55,
• From a qualified retirement plan (other than an IRA) to an alternate payee under a qualified domestic relations order,
• From a qualified retirement plan to the extent the plan participant has deductible medical expenses (medical expenses that exceed 7.5% of his or her adjusted gross income), whether or not the taxpayer itemizes deductions for the year,
• From an employer plan under a written election that provides a specific schedule for distribution of someone's entire interest if, as of March 1, 1986, the plan participant had separated from service and had begun receiving payments under the election,
• From an employee stock ownership plan for dividends on employer securities held by the plan, or
• From a qualified retirement plan due to an IRS levy of the plan.

Additional exceptions for nonqualified annuity contracts. The tax does not apply to distributions that are:
• From a deferred annuity contract to the extent allocable to investment in the contract before August 14, 1982,
• From a deferred annuity contract under a qualified personal injury settlement,
• From a deferred annuity contract purchased by an employer upon termination of a qualified employee plan or qualified annuity plan and held by a person's employer until his or her separation from service, or
• From an immediate annuity contract (a single premium contract providing substantially equal annuity payments that start within one year from the date of purchase and are paid at least annually).

Recapture tax for changes in distribution method under equal payment exception. An early distribution recapture tax may apply if, before the taxpayer reaches age 59½, the distribution method under the equal periodic payment exception changes (for reasons other than his or her death or disability). The tax applies if the method changes from the method requiring equal payments to a method that would not have qualified for the exception to the tax. The recapture tax applies to the first tax year to which the change applies. The amount of tax is the amount that would have been imposed had the exception not applied, plus interest for the deferral period.

The recapture tax also applies if the recipient does not receive the payments for at least 5 years under a method that qualifies for the exception. It applies even if the plan participant modifies his or her method of distribution after reaching age 59½. In that case, the tax applies only to payments distributed before the person in question reaches age 59½.

Tax on Excess Accumulation

To make sure that most of the retirement benefits are paid to the plan participant during his or her lifetime, rather than to subsequent beneficiaries after an individual's death, the payments that are received from qualified retirement plans must begin no later than the plan participant's ***required beginning date*** (defined later). The payments each year cannot be less than the ***minimum required distribution***.

If the actual distributions to an individual in any year are less than the minimum required distribution for that year, he or she is subject to an additional tax. The tax equals 50% of the part of the required minimum distribution that was not distributed.

For this purpose, a qualified retirement plan includes:

- A qualified employee plan,
- A qualified employee annuity plan,
- An eligible section 457 deferred compensation plan, or
- A tax-sheltered annuity plan (403(b) plan) (for benefits accruing after 1986).

Waiver. The tax may be waived if the taxpayer can establish that the shortfall in distributions was due to reasonable error and that reasonable steps are being taken to remedy the shortfall. If the person in question believes that he or she qualifies for this relief, Form 5329 must be filed, the tax paid, and a letter of explanation attached. If the IRS grants the request, the tax will be refunded.

State insurer delinquency proceedings. The plan participant might not receive the minimum distribution because of state insurer delinquency proceedings for an insurance company. If a person's payments are reduced below the minimum because of these proceedings, he or she should contact the plan administrator. Under certain conditions, the 50% excise tax will not have to be paid.

Required beginning date. Unless the rule for 5% owners and IRAs applies, the plan participant must begin to receive distributions from the qualified retirement plan by April 1 of the year that follows the ***later*** of:

- The calendar year in which the subject individual reaches age 70½, or
- The calendar year in which the person retires.

5% owners. If a person is a 5% owner of the employer maintaining the qualified retirement plan, the plan participant must begin to receive distributions from the plan by

April 1 of the year that follows the calendar year in which he or she reaches age 70½. This rule does not apply if the retirement plan is a government or church plan.

A person is a 5% owner if, for the plan year ending in the calendar year in which he or she reaches age 70½, the person in question owns (or is considered to own under section 318 of the Internal Revenue Code) more than 5% of the outstanding stock (or more than 5% of the total voting power of all stock) of the employer, or more than 5% of the capital or profits interest in the employer.

Age 70½ . A person reaches age 70½ on the date that is 6 calendar months after the date of their 70th birthday. For example, if your 70th birthday was on June 30, 20x1, you reached age 70½ on December 30, 20x1. If your 70th birthday was on July 1, 20x1, you reached age 70½ on January 1, 20x2.

Required distributions. By the required beginning date, as explained above, the plan participant must either:

1) Receive his or her entire interest in the plan (for a tax-sheltered annuity, the entire benefit accruing after 1986), or
2) Begin receiving periodic distributions in annual amounts calculated to distribute the entire interest (for a tax-sheltered annuity, the individual's entire benefit accruing after 1986) over a person's life or life expectancy or over the joint lives or joint life expectancies of the plan participant and his or her designated beneficiary (or over a shorter period).

The term "designated beneficiary" as used in (2) above means the individual who is someone's beneficiary under the retirement plan or annuity upon the plan participant's death. If the plan participant has more than one beneficiary, the beneficiary with the shortest life expectancy, usually the oldest individual, will be the "designated beneficiary."

After the starting year for periodic distributions, a person must receive the minimum required distribution for each year by December 31 of that year. (The starting year is the year in which someone reaches age 70½ or retires, whichever applies in determining the required beginning date.) If no distribution is made in the plan participant's starting year, the minimum required distributions for 2 years must be made the following year (one by April 1 and one by December 31).

Example. You retired under a qualified employee plan in 20x1. You reached age 70½ on August 20, 20x2. For 20x2 (your starting year), you must receive a minimum amount from your retirement plan by April 1, 20x3. You must receive the minimum required distribution for 20x3 by December 31, 20x3.

Distributions after the employee's death. If the employee was receiving periodic distributions before his or her death, any payments not made as of the time of death must be distributed at least as rapidly as under the distribution method being used at the date of death. If the employee dies ***before the required beginning date***, the entire account must be distributed under one of the following rules.

- ***Rule 1.*** The distribution must be completed by December 31 of the fifth year following the year of the employee's death.
- ***Rule 2.*** The distribution must be made in annual amounts over the life or life expectancy of the designated beneficiary.

The terms of the plan determine which of these two rules applies. If the plan permits the

employee or the beneficiary to choose the rule that applies, this choice must be made by the earliest date a distribution would be required under either of the rules. Generally, this date is December 31 of the year following the year of the employee's death.

If the employee or the beneficiary did not choose either rule and the plan does not specify the one that applies, distribution generally must be made under rule 2 if the beneficiary is the surviving spouse and under rule 1 if the beneficiary is someone other than the surviving spouse. However, if an individual's plan adopted the new rules proposed by the IRS in 2001 or 2002, distribution must be made under rule 2 if the employee has a designated beneficiary and under rule 1 if the employee does not have a designated beneficiary.

Distributions under rule 2 generally must begin by December 31 of the year following the year of the employee's death. However, if the surviving spouse is the beneficiary, distributions need not begin until December 31 of the year the employee would have reached age 70½, if later.

If the surviving spouse is the designated beneficiary and distributions are to be made under rule 2, a special rule applies if the spouse dies after the employee but before distributions are required to begin. In this case, distributions may be made to the spouse's beneficiary under either rule 1 or rule 2, as though the beneficiary were the employee's beneficiary and the employee died on the spouse's date of death. However, if the surviving spouse remarries after the employee's death and the new spouse is designated as the spouse's beneficiary, this special rule applicable to surviving spouses does not apply to the new spouse.

Minimum distributions from annuity plan. Special rules apply if a person receives distributions from his or her retirement plan in the form of an annuity. The plan administrator should be able to provide information about these rules.

Minimum distributions from an individual account plan. If there is an ***account balance*** to be distributed from the plan (not as an annuity), the individual's plan administrator must figure the minimum amount that must be distributed from the plan each year.

What types of installments are allowed? The minimum amount that must be distributed for any year may be made in a series of installments (e.g., monthly, quarterly, etc.) as long as the total payments for the year made by the date required are not less than the minimum amount required for the year.

More than minimum. A plan can distribute more in any year than the minimum amount required for that year but, if it does, the plan participant will not receive credit for the additional amount in determining the minimum amount required for future years. However, any amount distributed in an individual's starting year will be credited toward the amount required to be distributed by April 1 of the following year.

Combining multiple accounts to satisfy the minimum distribution requirements. Generally, the required minimum distribution must be figured separately for each account. Each qualified employee retirement plan and qualified annuity plan must be considered individually in satisfying its distribution requirements. However, if a person has more than one tax-sheltered annuity account, he or she can total the required distributions and then satisfy the requirement by taking distributions from any one (or more) of the tax-sheltered annuities. Distributions from tax-sheltered annuities will not

satisfy the distribution requirements for IRAs, nor will distributions from IRAs satisfy the requirements for tax-sheltered annuity distributions.

Life expectancy. For distributions beginning during someone's life that are made by April 1 after his or her starting year, the initial life expectancy (or joint life and last survivor expectancy) is determined using the ages of the plan participant and his or her designated beneficiary as of their birthdays in the starting year.

For distributions beginning after the employee's death (if death occurred before April 1 following the employee's starting year) over the life expectancy of the designated beneficiary, the initial life expectancy of the designated beneficiary is determined using the beneficiary's age as of his or her birthday in the year distributions must begin.

Unless a plan provides otherwise, the subject individual's life expectancy (and that of the spouse, if it applies) must be redetermined annually. (The life expectancy of a designated beneficiary who is someone other than the spouse cannot be redetermined.) If life expectancy is not redetermined, the initial life expectancy is simply reduced by one for each year after the plan participant's starting year to determine the remaining life expectancy.

If the life expectancies of both the employee and the employee's spouse are redetermined, and either one dies, use only the survivor's life expectancy to figure distributions in years following the year of death. If both the employee and his or her spouse die, the entire remaining interest must be distributed by the end of the year following the year of the second death.

If the life expectancy of only one individual (either the employee or the employee's spouse) is redetermined and that individual dies, use only the other individual's life expectancy to figure distributions in years following the year of death. If, instead, the other individual dies, his or her life expectancy as if the death had not occurred continues to be used to figure the remaining distributions. These rules also apply if the designated beneficiary is someone other than the employee's spouse.

A plan may also permit a person and his or her spouse to choose whether or not their life expectancies are to be redetermined. This choice must be made by the date the first distribution is required to be made from the plan.

Minimum distribution incidental benefit requirement. Distributions from a retirement plan during the employee's lifetime must satisfy, in addition to the above requirements, the *minimum distribution incidental benefit (MDIB) requirement.* This requirement is to ensure that the plan is used primarily to provide retirement benefits to the employee. After the employee's death, only "incidental" benefits are expected to remain for distribution to the employee's beneficiary (or beneficiaries). If a person's spouse is their only beneficiary, the MDIB requirement is satisfied if the general minimum distribution requirements discussed above are satisfied. If the spouse is not the only beneficiary of the person in question, the plan administrator must figure the plan participant's required minimum distribution by dividing the account balance at the end of the year by the *smaller* of the applicable life expectancy or the MDIB divisor that applies (from a table published in IRS Publication 939).

Simplified Method Worksheet (Kept in Taxpayer's Records)

1. Enter total pension or annuity payments received this year. Also, add this amount to the total for Form 1040, line 16a, or Form 1040A, line 12a	$_____
2. Enter your cost in the plan (contract) at annuity starting date **Note:** *If your annuity starting date was before this year and you completed this worksheet last year, skip line 3 and enter the amount from line 4 of last year's worksheet on line 4 below. Otherwise, go to line 3* .	_____
3. Enter the appropriate number from Table 1 below**. But** if your annuity starting date was after 1997 **and** the payments are for your life and that of your beneficiary, enter the appropriate number from Table 2 below	_____
4. Divide line 2 by line 3	_____
5. Multiply line 4 by the number of months for which this year's payments were made. If your annuity starting date was before 1987, enter this amount on line 8 below and skip lines 6, 7, 10, and 11. Otherwise, go to line 6	_____
6. Any amounts previously recovered tax free in years after 1986	_____
7. Subtract line 6 from line 2	_____
8. Enter the lesser of line 5 or line 7	_____
9. Taxable amount for year. Subtract line 8 from line 1. Enter the result, but not less than zero. Also add this amount to the total for Form 1040, line 16b, or Form 1040A, line 12b **Note:** *If your Form 1099-R shows a larger taxable amount, use the amount on line 9 instead.*	$_____
10. Add lines 6 and 8	_____
11. Balance of cost to be recovered. Subtract line 10 from line 2	$_____

Table 1 for Line 3 Above
AND your annuity starting date was

If the age at annuity starting date was ...	**before** November 19, 1996, enter on line 3	**after** November 18, 1996, enter on line 3
55 or under	300	360
56–60	260	310
61–65	240	260
66–70	170	210
71 or older	120	160

Table 2 for Line 3 Above

Combined ages at annuity starting date	Enter on line 3
110 and under	410
111–120	360
121–130	310
131–140	260
141 and over	210

CHAPTER 3 ANNUITIES AND CONSUMER CHOICES

Annuities give consumers a choice when it comes to retirement planning. They are sometimes referred to as 'reverse life insurance.' With life insurance, the policyholder pays the insurer each year until he or she dies, after which the insurance company pays a lump sum to the insured's beneficiaries. With annuities, the lump-sum payment is from the annuitant to the insurance company before the annuity payout begins, and the annuitant receives regular payouts from the insurer until death. Most annuity contracts have an *accumulation phase* and a *liquidation phase.* During the accumulation phase, capital builds up; this capital is dispersed during the liquidation phase. In the case of the single-premium immediate annuity, there is no accumulation phase. Annuitants make lump-sum payments of the accumulated capital that they wish to draw down to the annuity provider. During the liquidation phase, the annuitants receive payouts contingent upon their survival or in accord with other terms specified in the annuity contract. In many annuity contracts, payouts are specified as a guaranteed minimum, with the opportunity for a dividend if mortality experience or rates of return on insurance company investments prove better than expected. Many annuity products exhibit long accumulation phases, so they operate in part as saving vehicles. Although annuities are unique in their provision of income streams contingent on remaining alive, they compete with other financial products as a means for asset accumulation.

Annuities have historically been offered by insurance companies, which spread the mortality risk across many individuals and thereby achieve a more predictable cash flow than if they offered an annuity to only one individual. The same principles that underpin risk reduction in life insurance sales apply to the provision of annuity payouts. The annuity supplier must have sufficient capital and be sufficiently long-lived to ensure that annuity payouts will still be paid if the annuitant lives for many years. One of the issues involved in the Gramm Leach Bliley Act financial overhaul was whether banks and other financial institutions that provide saving vehicles should be permitted to underwrite annuities. A key question in that debate is whether any entity which sells annuities or assumes a mortality risk with respect to annuities should be subject to state insurance department scrutiny.

Importance of Annuities to Seniors

Annuities can make consumers better off by providing insurance against the possibility of reaching extreme old age with very low remaining financial resources. To illustrate this proposition researchers calculated the gain in lifetime utility for a 30-year-old man who faces mortality risk and can purchase an actuarially fair annuity, one for which the expected discounted value of annuity payouts equals the purchase price of the annuity[2]. The utility gain from purchasing an annuity on these terms is equivalent to the utility gain from a 30% increase in the present discounted value of his lifetime earnings. The utility gains are even larger for older individuals, for whom uncertain longevity represents a more immediate source of risk.

Researchers have contrasted the consumption profiles that individuals with and without access to actuarially fair annuity markets will choose[3]. They show that an individual

[2] Kotikoff and Spivak (1981)
[3] Friedman and Warshawsky (1988)

without annuities who lives to age 85 will rationally choose to consume only 73 percent as much at age 85 as was consumed at age 65. At age 95, this individual will be consuming less than half as much each year as at age 65. If he or she had annuitized personal wealth at age 65, consumption would be the same at all of these dates. This general pattern is reduced but not reversed by the inclusion of realistic institutional features such as assured minimal income from Social Security. One important distinction among annuity products concerns the nature of the payout stream, in particular whether the payout is a fixed nominal amount for the duration of the liquidation phase. Historically, most annuities provided fixed nominal payouts. Yet many individuals who purchase annuities are presumably interested in ensuring for themselves a minimum level of purchasing power, or real income, for the remainder of their lives. (Real *income* is income adjusted for the effects of inflation.) Inflation, which is uncertain when the annuity is purchased, can reduce the real value of the annuity payout. The utility gain for an individual with access to a market for real annuities is greater than that associated with access to a nominal annuity market. The absence of markets for purchasing power-adjusted annuities has been pointed out as one of the important rationales for government-provided retirement income programs[4]. The introduction of Treasury securities which guarantee returns after inflation may lead to changes in this situation, and in particular, may facilitate the introduction of purchasing-power-adjusted annuities by some insurance companies. [See the section on **Price-Indexed Annuities (PIA's)** in Chapter 5 for further discussion].

Variable annuities. One class of annuity products, are designed to reduce the risk of inflationary erosion of real benefit payments. They have been one of the most rapidly growing insurance products of the last two decades. Variable annuities offer the opportunity to link payouts to the returns on en underlying asset portfolio. If the underlying assets provide a hedge against inflation, so will the payouts on the variable annuity. Variable annuities do not always provide an inflation hedge. The weak performance of the U.S. stock market during the 1970's, when inflation rates were substantial. provides an example of a period during which variable annuities with payouts linked to the stock market did not provide a hedge against inflation. The decline of the stock market, coupled with the lowest interest rates in 45 years, caused problems with variable annuities again as the 21st Century began.

Mortality & Inflation Risk & Annuities

Annuities feature prominently in theoretical economic discussions of asset decumulation in lifecycle models. As a result, it has been disappointing to economists that, in practice, the market for privately purchased annuities in the United States is very small. Most elderly households in the U.S. receive government-provided Social Security benefits that provide an inflation-indexed lifetime annuity. Many also receive a nominal annuity from a defined benefit company pension plan. But few elderly households in the U.S. convert their financial assets accumulated outside a defined benefit pension plan into an annuity providing a lifetime retirement income. The Life Insurance Marketing Research Association (LIMRA) (1999) reported that in 1998, there were only 1.56 million individual annuity policies in "payout" phase, meaning that the policy-owners were currently receiving benefits. These policies covered a total of 2.35 million lives, since many of the policies were joint and survivor annuities paying benefits to both members of a married couple.

[4] Diamond (1977)

Groups, Individuals, and Pensions

Annuities may be purchased either by members of a group or by individuals. Insurance producers are more likely to encounter people wanting individual policies because they are most directly relevant for those individuals who might wish to use the annuity market to spread their accumulated assets over a remaining lifetime of uncertain length. By contrast, a group annuity contract is typically obtained via an employer-provided defined benefit pension plan. In some cases, group annuities may also be obtained via a defined contribution pension plan. The key distinction between an annuity purchased as an individual and one obtained through a group is that individuals purchasing annuities on their own are more likely to be self-selected to live longer than average. As in other insurance contexts, group purchases of annuities reduce the risk of adverse selection.

The U.S. individual annuity market is one component of the broader market for life insurance products. The American Council of Life Insurers reports that in 2015, premiums paid for annuities totaled $307.26 billion. By comparison, for the entire life/health insurance sector, net premiums, considerations, and deposits amounted to $638 billion.

In 2016 sales of individual *immediate* annuities was $9.2 billion while deferred income annuity sales totaled $2.8 billion. Fixed-rate deferred annuities came in at $38.7 billion and overall fixed annuity sales were $117.4 billion. For 2016, indexed annuity sales were $60.9 billion and variable annuity sales totaled $104.7 billion (LIMRA website).

A line of current thinking suggests that many purchasers of variable annuities regard the accumulating principal in these products as a source of emergency resources for health care or other needs, not as a source of stable retirement income. Many current retirement saving vehicles permit individuals to exert substantial discretion over how they draw down their accumulated assets. These vehicles include 401(k) plans, 403(b) plans, and Individual Retirement Accounts (IRAs). Potential draw-down options from these include lump-sum distributions, periodic partial distributions, and annuitization.

Table 3-1: Annuity Contracts and Reserves

Year	Policy Values (millions)	Reserves (millions)
1950	$952	$5,600
1960	3,572	18,850
1965	4,608	27,350
1970	10,580	41,175
1980	22,429	72,210
1985	53,899	88,990
1986	83,712	441,390
1987	88,677	495,420
1988	103,278	562,155
1989	114,997	624,290
1990	129,064	695,700
1991	123,590	745,950
1992	132,645	768,215
1993	156,445	825,375
1994	153,849	878,460
1995	159,935	972,560
1996	176,295	1,312,494
1997	197,547	1,454,962
1998	229,493	1,608,494
1999	270,212	1,780,699
2000	306,693	1,819,680
2001	273,930	1,585,008
2002	291,897	1,619,075
2003	290,369	1,899,994
2004	301,029	2,105,882
2005	302,596	2,258,240
2006	329,071	2,415,158
2007	341,344	2,548,490
2008	354,976	2,223,441
2009	255,633	2,512,334
2010	320,995	2,739,686
2011	359,142	2,810,717
2012	369,435	3,003,685
2013	307,260	3,271,345
2014	381,642	3,385,586
2015	352,363	3,407,220

Source-American Council of Life Insurers

Annuity Market Data

Tables 3-1 through 3-3 present an overview of the significance of annuities in the U.S.

insurance market. Table 3-1 presents the value of insurance company contracts and reserves over the period 1950-2013. Although annuities represented less than two percent of the combined payouts on life insurance and annuities in the period before World War II, they grew more rapidly than life insurance in the five decades period of 1940-1990. Table 3-2 reports the premium income received by insurance companies for annuity policies over the 1977-2016 period. The table shows both the substantial growth of real annuity premiums, and the breakdown of annuity premiums between individual and group policies. Although premiums on group policies were three to five times greater than the premiums on individual policies throughout the 1950s and 1960s, individual annuities grew rapidly in the last three decades of the 20th Century.

Table 3-2: Payments into Annuities, by Year (millions)

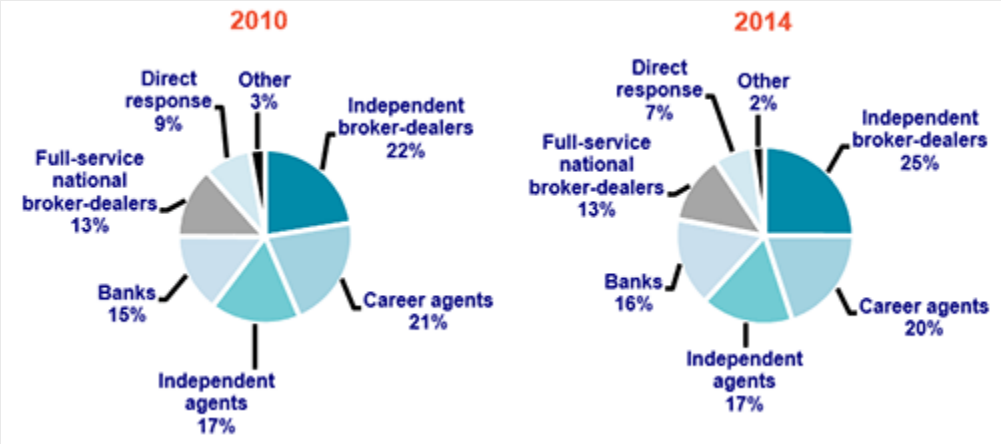
Year	Individual Annuity	Group Annuity	Total[1]
1977	$4,552	$10,422	$14,974
1978	4,454	11,885	16,339
1979	4,976	12,963	17,939
1980	6,296	16,133	22,429
1981	10,290	17,289	27,579
1982	15,196	19,448	34,644
1983	14,003	16,541	30,544
1984	15,706	27,153	42,859
1985	20,891	33,008	53,899
1986	26,117	57,595	83,712
1987	33,764	54,913	88,677
1988	43,784	59,494	103,289
1989	49,507	65,590	114,997
1990	53,665	75,399	129,064
1991	51,671	71,919	123,590
1992	61,348	71,297	132,645
1993	76,987	79,458	156,445
1994	80,831	73,017	153,849
1995	76,987	79,458	156,445
1996	80,831	73,017	153,849
1997	77,370	82,565	159,935
1998	87,067	92,228	176,295
1999	90,192	107,355	197,547
2000	95,446	134,047	229,493
2001	115,621	154,591	270,212
2002	143,071	163,622	306,693
2003	141,656	109,599	273,930
2004	168,428	100,861	291,897
2005	165,943	102,614	290,369
2006	172,140	104,537	301,029
2007	167,032	110,084	302,596
2008	187,083	115,645	329,071
2009	192,503	121,722	341,344
2010	208,965	119,169	354,976
2011	128,853	102,727	255,633
2012	189,946	103,677	320,995
2013	217,837	117,058	359,142
2014	189,258	158,837	369,435
2015	179,578	108,091	307,260

Source: American Council of Life Insurers

[1]Beginning with 2010, the total includes annuities certain and supplementary contracts.

By 1993, premiums for individual and group annuities were almost equal. This reflects both the decline in the growth of defined benefit pension and the rapid expansion of individual annuity products. By comparison, life insurance premiums were $38.7 billion in 1951, more than seven times greater than the annuity premiums. In 2013, life insurance payments totaled $126.12 billion. Statistics such as those reported in Table 3-2 may actually understate the significance of annuity contracts. Virtually all permanent life insurance contracts other then term life accumulate cash value. This accumulated value can be used to purchase an annuity. Such policies are classified as life insurance policies, but they can also be viewed as partly annuity products. Provisions regarding withdrawals and annuity conversions are almost always specified in the life insurance policy at the time of purchase. Table 3-3 shows the changes in distribution channels for annuities, the years 2010 and 2014.

Table 3-3 Changes in Distribution Patterns for Annuities



Development of Annuities

Not surprisingly, since uncertainty about length of life is a ubiquitous source of risk, financial contracts similar to annuities have a long history. Research reports that ancient Roman contracts known as *annua* promised an individual a stream of payments for a fixed term, or possibly for life, in return for an up-front payment[5]. Such contracts were apparently offered by speculators who dealt in marine and other lines of insurance. A Roman, Domitius Ulpianus, compiled the first recorded life table for the purpose of computing the estate value of annuities that a decedent might have purchased on the lives of his survivors. Single-premium life annuities were available in the Middle Ages, and detailed records exist of special annuity pools known as *tontines* that operated in France during the 17th century. In return for an initial lump-sum payment, purchasers of tontines received life annuities. The amount of the annuity was increased each year for the survivors, as they claimed the payouts that would otherwise have gone to those who died. When the second-to-last participant in a tontine pool died, the survivor received the entire remaining principal. The tontine thus combined insurance with an element of lottery-style gambling. During the 1700's, governments in several nations, including England and Holland, sold annuities in lieu of government bonds. The government received capital in return for a promise of lifetime payouts to the annuitants. There are detailed accounts of the sale of public annuities in England in the 18th and early 19th centuries[6]. Annuities initially were sold to all individuals at a fixed price, regardless of their age or sex. As it became clear over time that mortality rates for annuitants were lower than those for the population at large, a more refined pricing structure was introduced. In the United States, annuities have been available for over two centuries. In 1759, Pennsylvania chartered the Corporation for the Relief of Poor and Distressed Presbyterian Ministers and Distressed Widows and Children of Ministers. It provided survivorship annuities for the families of ministers. In Philadelphia in 1812, the Pennsylvania Company for Insurance on Lives and Granting Annuities was founded. It offered life insurance and annuities to the general public and was the forerunner of modern stock insurance companies.

During the 19th century, the market for annuities grew slowly while that for life insurance grew quickly. This disparity in part reflects the different risks that these insurance products address. Individuals who, if they died unexpectedly, would leave dependents

[5] James (1947)
[6] Murphy (1939)

in need of income support provide the traditional market for life insurance. Individuals who have no dependents or relatives to provide support if they outlive their resources provide the natural market for annuities. Extended families, common in the 19th century, provided an informal alternative to structured annuity contracts. The falling incidence of multi-generation households in the early 20th century contributed to the growing demand for annuity products. Families and other informal arrangements in ensuring longevity were taken for granted in those times.

The pricing of different types of single-premium annuities can be contrasted by the reader.[7]. To better understand the market for annuities, a source of annuity prices for multiple products, companies, and years can be examined. Annuityshopper.com publishes on its web page approximately twice a year a survey of annuity prices that covers a variety of individual (not group) annuity products and insurance companies. A look at Chart 3-2 shows that a 65-year-old man could expect roughly $5.48 per month in annuity payout per $1,000 premium payment for a fixed life annuity, compared with $5.04 per month for a 10-year certain and continuous annuity (a life annuity with a guarantee of a minimum of 10 years of payments) and $4.70 for a cash refund annuity, which refunds the unpaid nominal amount of the premium in the event that the annuitant dies before the full amount of the initial premium has been distributed. The differences in purchase rates are a function of time and interest rates. In addition to the immediate annuities described above, a second broad class of individual annuities is deferred annuities. A single-premium deferred annuity, for example, includes a waiting period between the premium payment and the beginning of annuity payouts. The promised stream of payments for a given premium is greater for a single-premium deferred annuity than for a single-premium immediate annuity, since the premium is invested and earns returns between the date when it is paid and the date when the payouts begin. A variant on such an annuity, one that provides for multiple premium payments, could represent a saving plan for an individual who plans to use an annuity to draw down accumulated resources. This is known as an annual-payment annuity. It specifies a stream of premiums that the policyholder will pay during the policy's accumulation phase. At the conclusion of this phase or possibly some years afterward, the policy enters its liquidation phase and the annuitant and beneficiaries begin to receive payouts from the accumulated principal. Annual-payment annuities can be useful planning tools for those who are trying to accumulate the resources to receive a substantial annuity during retirement. Single-premium deferred annuities have been the dominant contract in the individual annuity market of the last few decades. One of the most popular annuity products is the flexible-premium deferred annuity, which permits annuitants to make cash contributions at times of their choosing and allows the accumulated value of these premium contributions to be converted to an annuity at some future date or specified age of the annuitant.

Annuity Market Growth

The annuity business was a small share of the insurance market until the Great Depression. Data compiled suggest that, over the period 1866-1920, annuity premiums averaged only 1.5 percent of life insurance premiums received by U.S. insurance companies[8]. The Great Depression, and the associated financial panic and bank failures, led many investors to seek reliable investment vehicles for their savings. Individual annuities, offered by insurance companies with long and sound financial

[7] Black and Skipper (1994)
[8] the Temporary National Economic Commission (TNEC) (1941,112)

histories, were such vehicles, and they grew rapidly during the 1930s. TNEC (1941) data show that sixty-eight percent of all annuity premiums received between 1913 and 1937 were received between 1933 and 1937. In 1934-36, the premium income on newly issued individual annuities exceeded that on newly issued ordinary life insurance for the 26 large companies studied by the TNEC.

As a share of payouts, reserves, or total premium income, annuities were still a small part of the insurance business in the 1930's. They accounted for 1.79 percent of insurance company disbursements over the 1929-38 period, compared with 24.3 percent for death claims and 23 percent for policy surrender values[9]. Annuities, at 8.56 percent, accounted for a greater share of premium income during this period, and individual annuities accounted for 80 percent of annuity premiums. In 1938, annuity reserves were $2.67 billion, compared with $16.83 billion in life insurance reserves. Although the annuity market grew rapidly in the 1930's, it represented only a small fraction of the insurance industry at the end of this period. Many firms that had sold policies during that decade subsequently experienced losses on their annuity contracts, for two reasons. First, the rate of return earned on insurance reserves fell during the early 1930's. Long-term interest rates on Moody's AAA corporate bonds averaged 4.68 percent between 1928 and 1932 but 3.45 percent between 1933 and 1940. The real interest rate was much greater than the nominal rate in the early 1930's. The consumer price index fell 20.3 percent between 1928 and 1932, raising the real return to lenders. Long-term interest rates fell below 3 percent in the late 1930's.

Because annuities had been sold assuming that prevailing interest rates from earlier periods would remain in force, the drop in rates led to investment earnings below what was needed to service these contracts. Research indicates that the net earnings rates of life insurance companies reached a high of 5.05 percent in 1930 but declined for nearly two decades afterward, falling to 2.88 percent in 1947[10]. This was reflected in the poor profitability of annuity contracts. A second factor in annuity losses was the longevity of annuitants relative to the assumptions that insurance companies used in pricing their annuity contracts. Life expectancy did not improve substantially during the Depression. Life expectancy for white men at age 60 was only 0.2 years longer in 1940 than in 1930. For women, the gain in life expectancy was slightly larger: 0.5 years (*Historical Statistics,* Series B124-125, vol. 1). The mortality tables that life insurance companies used to price annuities were revised several times during the 1930's to reflect the lower mortality risk for annuitants than for the general public[11]. The life tables in use particularly overstated the mortality experience of female annuitants at the beginning of the 1930's. The 1868 American Experience Table of Mortality, long a standard reference in the insurance industry, and the "expectation" table adopted in 1938 for annuity purposes have been compared for research purposes[12]. The tables show large gains in life expectancy at extreme ages, especially for women. The 1868 table combined both men and women to yield a life expectancy of 8.48 years at age 70. In contrast, the 1938 table shows a life expectancy of 15.62 years for female annuitants at age 70. The overly optimistic mortality assumptions built into annuities sold at the beginning of the 1930's contributed to the losses on these products later in the decade.

[9] (TNEC 1941, 324)
[10] Campbell (1969)
[11] Gilbert (1948) and the TNEC (1941, 331)
[12] Gilbert (1948)

The annuity contracts that grew in popularity during the 1930s emphasized the role of annuities as retirement savings and investment vehicles. Annual-premium retirement annuities-contracts that allowed individuals to make premium contributions each year, to accumulate a capital fund, and then to choose from a number of payout options at the date of their retirement or another advanced age-expanded particularly rapidly. Retirement annuities were attractive retirement saving vehicles for several reasons. They offered returns that were often greeter than those available elsewhere for small investors. They provided an option to purchase an immediate single-premium annuity at a future date, typically at terms specified at the beginning of the accumulation period if the participant decided that was the best way to decumulate assets. Perhaps most important, annuities were supplied by secure financial institutions.

Even though surrender charges could sharply reduce the return on these products for those who redeemed them before maturity, this did not prevent the rapid expansion of the deferred annuity market in the 1930's[13]. Annuity premiums, the amount an annuitant had to pay to purchase a given payout stream, increased during the 1930s. Gilbert (1948) reports that in 1930 Aetna Life Insurance Company would sell an immediate annual to a 65-year-old man/woman for a premium of $925/1,040. By 1940, the premiums had increased to $1,220/1,435.

Who Buys Annuities?

Survey data on the owners of nonqualified annuity products[14], provide some insight on the individuals who purchase these policies. In 2013, the average age of an individual annuity owner was 70, and 65 percent of these policyholders were retired. Annuities are primarily a product that attracts buyers who are at or near retirement age. A total of 51 percent of annuity owners are women. Income distribution of annuity owners goes like this;

- Eight of ten (80 percent) annuity owners had income below $100,000,
- 35 percent have income below $50,000,
- only 7 percent have income greater than $200,000

The characteristics of annuity products that attract current buyers vary; 82 percent say annuities are safe and an important source of retirement security; 90 percent say an annuity is an effective way to save for retirement; 84 percent say they intend to use the annuity for retirement income; 87 percent say they intend to use the annuity as a financial cushion for living beyond life expectancy; 79 percent say they intend to use the annuity to avoid being a financial burden on children. An earlier Gallup survey showed roughly three-quarters cite tax benefits associated with annuities as a primary reason for purchasing their policy. Another 65 percent cite the safety and reliable income associated with an annuity. More than half indicate that the long-term saving plan associated with an annuity product was an important attraction. Nearly half of all annuity holders report that they used a one-time income receipt, such as an inheritance, to purchase their annuity.

As of 2016, Life Insurers held $2.73 trillion in bonds, $84.9 billion in stocks, and $404 billion in mortgage loans.[15]

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[13] Op. cit.
[14] information collected and reported by Gallup-Matthew Greenwald & Assoc. (2013),
[15] FIO Annual Report (2016)

Group Plans

The group annuity market, which is linked to corporate defined benefit pension plans, was pioneered by the Metropolitan Life Insurance Company in the early 1920's[16]. Life insurance companies began underwriting group life, health, and disability policies for large corporations in the years after World War I. Providing life annuities to retirees was a natural extension of this business **Most early corporate pensions were financed on a pay-as-you-go basis,** with the firm making payments to beneficiaries from current earnings. In 1921, Metropolitan began to write small contracts to manage corporate pension programs, collecting contributions while workers were employed and, in return, paying out benefits when they were retired. Metropolitan introduced its own retirement pension program in 1925 and began actively marketing "group annuities" the name for structured pension programs, in 1927. In the first year of operation, Metropolitan sold only 30 contracts for group annuities, covering fewer than 40,000 individuals. The group annuity market suffered from the same difficulties as the individual annuity market in the early 1930s, with low investment returns leading to losses on group annuity contracts. This experience, coupled with the passage of the Social Security Act of 1935 (which promised workers a minimal retirement benefit) led to slow growth of group annuities. By 1941, only 269,101 individuals were covered by group annuity policies with Metropolitan Life Insurance Company[17]. The typical policy at this time required employer and employee contributions during the employee's active service. The employee was eligible to receive an annuity beginning at age 65, with some provisions for retirement at other ages. At retirement, the employee could typically choose between a lump-sum payout of the total contribution and the "paid-up option" in which these contributions were used to purchase a life or joint life annuity. Employer contributions were usually applied to purchase an annuity. The goal of most group annuity plans was to provide, in conjunction with individual benefits from Social Security, a retirement income that replaced roughly 40-60 percent of the retiree's earnings from employment[18].

Group Annuity Forms

Group annuity contracts take several forms. The first type to achieve popularity was the **deferred group annuity contract**. An employer purchasing such a contract makes periodic payments to an insurance company, which applies these payments to the purchase of deferred annuities for covered workers. The purchase price of these annuities is specified by the employer's contract with the insurance company, so the insurer indemnifies the employer against changes in rates of return, mortality risk, and other factors that could alter the pricing of deferred annuities. Such policies are often structured so that the employer receives a dividend from the insurance company if mortality experience or investment returns prove to be more favorable than the initial contract anticipated[19]. The employer does not pay more, however, if supplying deferred annuities turns out to be more expensive than the insurance company had originally anticipated. This type of contract covered 71 percent of the individuals with group annuity contracts in 1950 but declined to only 48 percent a decade later. A key

[16] (see James 1947)
[17] James (1947)
[18] see Dublin 1943, 185
[19] Maclean (1962)

attraction of deferred group annuity contracts is that employees know they have a certain pension income, which is guaranteed by the insurance company writing the annuity contract. Managers in turn know that they have met their future pension obligations in full. Because some workers will not remain with the firm long enough to collect pension benefits, however, fully-funded deferred group annuity contracts require the employer to set aside funds for future pension liabilities that may not materialize. These contracts also give employers little flexibility in choosing the funding level for their pension.

A second type of group annuity contract, the **deposit administration contract**, grew in popularity during the 1950s. This type of contract offers more flexibility in the timing of employer contributions and a more direct link between employer cost and the mortality turnover experience of employees than does the deferred group annuity contract. Contributions to the deposit administration plan are held by the insurer in an unallocated fund. The insurer promises a minimum return on this fund. When an employee retires, the insurer withdraws an amount sufficient to purchase an immediate fixed annuity for the amount of the retiree's retirement benefit from the fund account. The insurer does not indemnify the employer against changes in the price of fixed annuities. Although the insurance company bears all risks of mortality and rate-of-return fluctuations for retired employees, the employer bears these risks for employees who have not yet reached retirement. The employer may be able to contribute less to the reserve fund than the required contributions under a deferred group annuity contract. Deposit administration plans expanded very rapidly in the 1950's, from covering only 10 percent of individuals in insured pension plans in 1950 to covering 31 percent by 1959.

A third class of group annuity contract, first offered in 1950 and one of the most popular in subsequent years, was the **Immediate Participation Guarantee (IPG) contract**. This is a variant of the deposit administration contract, with a fund account maintained by the insurer but with even more direct links between the mortality experience of covered employees, returns on investment, and the pension costs of the employer. With an IPG plan, if the employer maintains a fund account balance large enough to fund the guaranteed annuities for all retirees, then the employer's account is credited with the actual investment experience of the insurer, and the actual payments to retirees are withdrawn from this account. In this way the employer is essentially self-insuring the mortality experience of retirees and receiving actual rather than projected investment returns. If the employer's fund balance drops below the amount needed to fund the required guaranteed annuities, however, then the plan becomes a standard deferred annuity contract, and the insurer uses the account balance to purchase guaranteed individual annuities for all participants in the pension plan. Provided the account balance is high enough, the employer bears the investment and mortality risks associated with the plan. These risks are assumed by the insurer if the account balance falls below the threshold. After passage of ERISA, the deposit administration and IPG contracts fell out of favor.

The rules governing an employee's participation in defined benefit private pension plans vary from employer to employer, with corresponding effects on participation in associated group annuity programs. Several common features nevertheless deserve comment. First, when firms introduce these plans, they typically purchase deferred annuities for the pension liabilities associated with prior service of current employees. Second, if employees vested in a pension plan die before the plan's retirement age, their contributions will be returned, in most cases with interest; the employer's

contributions to the pension plan will not be returned. Third, an employee who leaves the firm before reaching retirement age may choose to withdraw the current value of his or her pension benefit as a lump sum or to receive the benefits due at retirement age. With the advent of individual retirement accounts and other self-directed retirement income accounts in the early 1980s, workers who were leaving the firm were able to roll over their accumulated pension wealth into another retirement saving account

Annuity Products Value

This section briefly describes the set of nominal annuity products currently available to annuity buyers in the United States. It then develops a framework for evaluating the payouts from annuity products by calculating the ratio of the expected present discounted value of such payouts to the purchase cost (initial premium) of these products.

Currently-Available Annuity Products in the United States

Virtually all of the annuity products marketed to individual annuity buyers in the U.S. are nominal annuities. They pay benefits that are not inflation-indexed. Two forms are common:

(a) level-payout annuities that provide a fixed payment, typically monthly, for as long as the annuitant is alive; and
(b) graded annuities paying benefits that increase over time at a pre-specified rate (e.g. at three or five percent per year).

The payout streams associated with these two types of policies differ, with the real value of payouts from a level-payout nominal policy declining faster than that from a graded annuity. A graded annuity does not offer inflation protection, of course, since the stream of benefits provided is not affected by the inflation rate over the contract's lifetime. An annuity may be purchased as either an individual policy or a joint-and-survivor policy. In the former case, benefit payments continue as long as the insured person is alive. In the latter case, benefits are paid for as long as either of two individuals is alive. Joint and survivor products vary in the ratio of the payout that second-to-die annuitant receives, relative to the payout when both annuitants are alive[20]. There are three common types of joint-and-survivor products (and several variants). One of the common types, a "100 percent survivor policy," provides the same benefit when both members of a couple are alive as when only one survives. A related policy, a "50 percent survivor policy," provides the survivor with half of the benefit that was paid when both annuitants were alive. The third common policy is a "50 percent contingent beneficiary policy." In this case, one of the annuitants is defined as the primary and the other as the contingent beneficiary. The full amount of the annuity payout continues for as long as the primary beneficiary is alive, even if the primary beneficiary outlives the contingent beneficiary. If the primary beneficiary predeceases the contingent beneficiary, the contingent beneficiary receives a payout equal to half of the primary beneficiary's payout.

A final factor affecting annuity products is their tax status, which has to do with the source of the funds used to purchase the annuity. In the U.S., contributions to employer-provided pension programs are subject to tax preferences as long as the plan meets

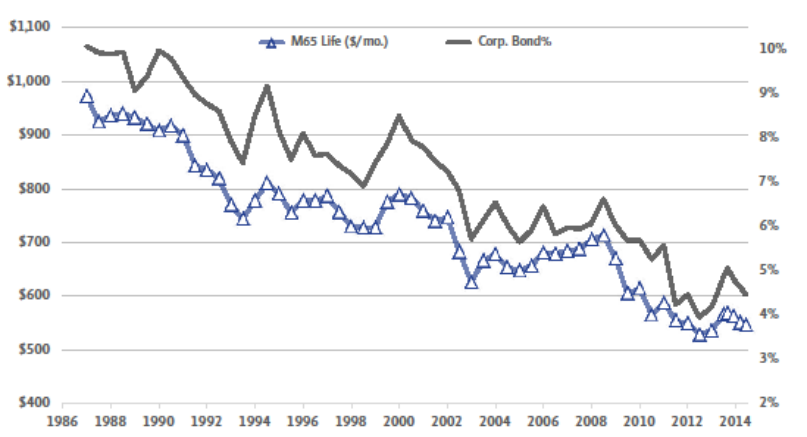
[20] Brown and Poterba (2000)

regulatory standards.[21]

Going Down

Figure 3-4 shows the fixed monthly payout from the model-simulated SPIAs issued to 65-year-old men for a single premium of $100,000 from January 1986 through 2014. More specifically, changing fixed lifetime monthly payments (in nominal terms) are shown for SPIAs (with guaranteed periods of 10 years for individuals and 20 years for couples) bought for $100,000 at the end of the month.

Figure 3-4 Monthly Payment per $100,000 Single Premium Nominal Immediate Fixed Annuity
Male Age 65, monthly income per $100,000 premium (in left margin) and yield on Moody's Seasoned AAA Corporate Bonds (in right margin)



The chart illustrates three things:

- Monthly payouts from SPIAs have declined over time. For example, in 1986, a $100,000 premium bought a monthly payout of just under $1,000. By 2014, however, as interest rates remain consistently low, the same $100,000 life-only annuity for a 65-year-old man bought $548 in monthly benefits.
- Monthly payouts to women are lower than those to men for the same premium. As compared to the male retiree above, a female would receive $512 monthly, because women's life expectancy is longer than that of men.
- Buying a SPIA carries a timing risk. For example, from 1992 to 1994, the monthly lifetime payments a 65-year-old man could buy for $100,000 declined from around $850 to the $750 range; a difference of $1,200 a year.

As life spans grow, so do pension and annuity worries. New mortality estimates released October of 2014 by the Society of Actuaries show the average 65-year-old U.S. woman is expected to live 88.8 years, up from 86.4 in 2000. Men age 65 are expected to live 86.6 years, up from 84.6 in 2000. The longer the lifespan of an individual, the further the value of a pension must be stretched. This means periodic payments from pension contracts will be smaller.

Calculating 'Value' of Annuity Payment Stream

Annuity products provide a stream of payouts lasting many years. The exact value of

[21] McGill et al. (1996) summarizes the regulations that govern qualified plans. Brown, Mitchell, Poterba, and Warshawsky (1999) analyze the tax treatment of distributions from qualified and nonqualified plans.

this payout stream is uncertain because it is conditional on an individual annuity buyer's longevity. In order to evaluate how the future annuity stream compares with the current price of an annuity product, an expected present discounted value calculation to account for the future payment stream and annuity buyer's mortality risk must be conceptualized. The formula[22] used to calculate the expected present discounted value (EPDV) of a nominal annuity with an annual payout A_n, purchased by an individual of age b, is:

$$(1) \qquad V_b(A_n) = \sum_{j=1}^{115-b} = \frac{A_n * P_j}{\Pi_{k=1}^{j}(1+i_k)}$$

It is assumed that no annuity buyer lives beyond age 115. P_j denotes the probability that an individual of age b years at the time of the annuity purchase survives for at least j years after buying the annuity. The variable i_k denotes the one-year nominal interest rate k years after the annuity purchase. Annuities are valued without regard to the tax consequences of receiving annuity income, in part for comparability with previous literature, and in part because calculations in the study cited above suggest that there is little difference in the money's worth ratio calculated before and after taxes. In the U.S. market, virtually all annuities sold offer only nominal payout streams, but in other countries, real annuities that provide inflation-indexed payout streams are also available. To compute the EPDV for such products, equation (1) must be modified to recognize that the amount of the payout is time-varying in nominal terms but fixed in real terms. The easiest way to handle this is to allow A_r to denote the real annual payout, and to replace the nominal interest rates in the denominator of (1) with corresponding real interest rates. The equation uses r_k to denote the annual real interest rate k years after the annuity purchase. While historically it was difficult to measure real interest rates without some assumptions about the future course of inflation rates, it may be possible to use data on the interest rates on inflation-indexed bonds in the United States and the United Kingdom to obtain direct estimates of these rates. The expression evaluated to compute the EPDV of a real annuity is:

$$(2) \qquad V_b(A_r) = \sum_{j=1}^{115-b} = \frac{A_r * P_j}{\Pi_{k=1}^{j}(1+i_k)}$$

The "money's worth" of an annuity is defined as the ratio of the expected present value of the annuity's payouts and its purchase price. For a nominal annuity that costs $100,000, for example, the money's worth is $V_b(A_n)$/100,000. The purpose of a money's worth ratio is to provide a scale-free metric for comparing annuities over time or across countries. Further discussion of 'money's worth' ratio can be found in Chapter 7.

Computation for Nominal Annuities

The framework developed above can be used to calculate the money's worth for a variety of different nominal annuity products. To calculate expected present discounted values based on equations (1) and (2), three types of data input are required. The first is the payout rate on the annuities being valued, which was reported in Table 3-4. The second is a set of mortality rates that can be used to calculate the probability that an

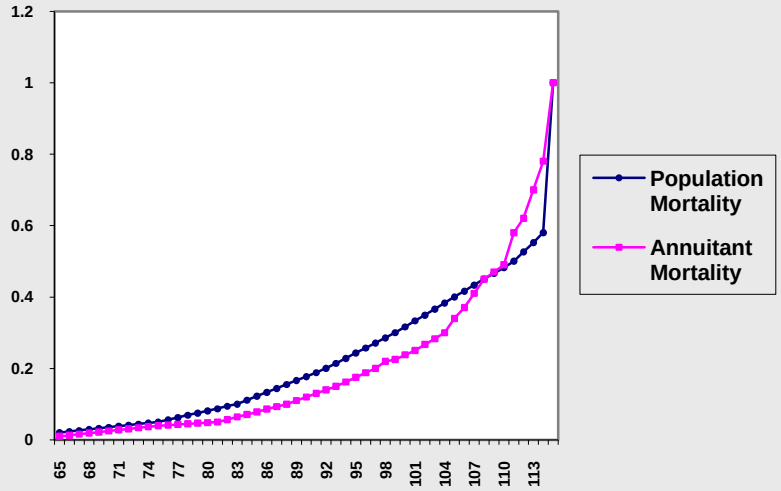
[22] The “money's worth” valuation approach undertake here builds on prior research including Warshawsky (1988), Friedman and Warshawsky (1990), Mitchell, Poterba, Warshawsky, and Brown (1999), and Brown, Mitchell, and Poterba (2000).

annuitant will be alive in future years. The third is a set of discount rates that use reasonable data sources for the relevant calculations. Following is a description of the choices for these assumptions.

Actuarial Assumption for Annuity Assessment

Equations (1) and (2) are evaluated using mortality tables drawn for either the population as a whole, or for a subset of annuitants. The first set of results uses survival probabilities for the population at large, and for this is used the birth cohort mortality rates taken from the Social Security Administration's 2014 Trustee's Report. It is not sufficient to use current period mortality tables, since over time populations generally experience mortality improvements. Annuity valuation requires mortality projections that model the *prospective* survival experience of today's retirees. When estimating the money's worth of an annuity for a 65 year old in 1995, the projected mortality experience of the 1930 birth cohort is used, since this is the group that would have been 65 years old in 1995. Similarly, the 1931 through 1934 birth cohort mortality rates would be used for the 1996 through 1999 money's worth calculations.

Figure 3-1 Population and Annuitant Mortality



Source: Mitchell, Poterba, Warshawsky, and Brown (1999)

The second set of results acknowledges that annuity purchasers tend to have a mortality experience that differs from that of the general population. Whether this is the result of those who have information that they are likely to be long-lived purchasing annuities, or simply a function of different (and potentially observable) characteristics of annuitants and non-annuitants, is not clear. In any case, because annuitants have longer life expectancies than the broader population, insurance companies have developed a second set of mortality rates. This *annuitant* mortality table describes the mortality experience of those who actually purchase annuities.[23] The algorithm presented generates projected mortality rates for the set of annuitants purchasing annuity contracts in a given year. These calculations use an updated version of that algorithm that incorporates the current Social Security data. The population and mortality tables are different. Figure 3-1 shows the projected mortality rates in 1999 for

[23] MPWB (1999) develop an algorithm that combines information from the Annuity 2000 mortality table described in Johansen (1996), the 1983 Individual Annuitant Mortality table, and the projected rate of mortality improvement implicit in the difference between the Social Security Administration's cohort and period mortality tables for the population.

65-year old male annuity buyers and 65-year old men in the population at large. Between the ages of 65 and 75, the mortality rate for annuitants is roughly half that of the general population. The mortality differential is smaller at older ages.

In equations (1) and (2) above, the term l_k denotes the one-month interest rate k months after the annuity purchase. The interest rates are measured using the term structure of yields for zero-coupon U.S. Treasury strips.[24] STRIPS is the acronym for Separate Trading of Registered Interest and Principal of Securities. The STRIPS program lets investors hold and trade the individual interest and principal components of eligible Treasury notes and bonds as separate securities. See the section in a subsequent chapter on Treasury STRIPS.

Pension, Annuities and Government Policy

Group annuity contracts grew rapidly during the 1950s and 1960s. They were originally linked to defined benefit pension plans, which promise workers a retirement benefit specified by a formula typically depending on years of service and salary history. Their growth continued as employment at firms with defined benefit pension plans increased and as various legislative changes raised the fraction of the workforce at these firms that was covered by a pension. For a variety of reasons, however, the growth of defined benefit plans slowed and then reversed during the 1980's. Defined contribution plans, which permit employers to make contributions to an investment account maintained on behalf of the worker but which do not promise any particular stream of postretirement benefits, have grown rapidly since the early 1980s. The growth of defined contribution plans continues. The number of defined benefit retirement plans has dwindled over time and the use of group annuities has changed. These annuities are increasingly used in conjunction with defined contribution plans.

Insurers can limit the amount of longevity risk they assume through pension risk transfers by offloading it after purchase to the capital markets, to an insurer/reinsurer, or to both. This was done in 2011, when Rolls Royce transferred $3 billion in pension liabilities to Deutsche Bank which, in turn, transferred portions of it to a group of insurers/reinsurers.[25] Additionally, insurers can hedge their longevity risk directly through capital market transactions. Hedging provides an effective way to reduce volatility within portfolio outcomes. Given the growing need for institutions to protect against longevity, the use of capital market solutions such as forward contracts, longevity hedging, swaps, and securitizations are expected to increase.

In 2012, General Motors' eliminated $26 billion of pension liabilities by moving 67 percent of retirees away from the automaker's pension plan to a group annuity plan. In another transaction, Verizon purchased a single-premium group annuity contract to transfer approximately $7.5 billion of its pension liabilities to Prudential Financial. It is estimated a total of only $2 billion to $3 billion worth of pension-risk transfers are currently done each year in the U.S. However, the U.S. private DB pension market has remained consistently around $2.4 trillion.[26] As the need to offload pension liabilities grows, the demand for these risk transfer transactions could increase and reach

[24] The data on the U.S. Treasury strips yield curve was collected from *Bloomberg Financial Markets* for the same dates on which the *Best's Review* and *Annuity Shopper* data were collected

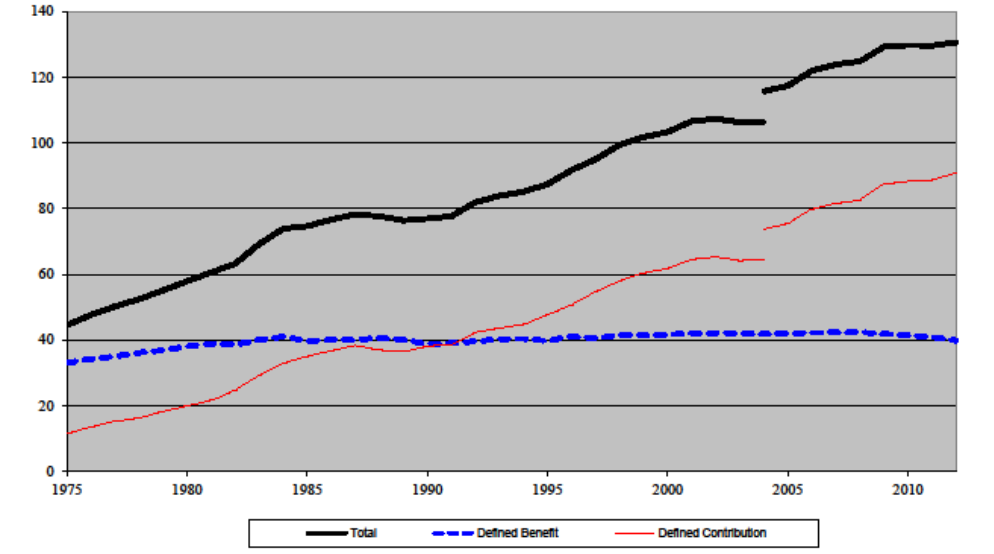
[25] 154 Crosson, Cynthia, 2012. "Emerging Trends in Life Reinsurance: Non-Traditional Players Enter Global Longevity Risk Transfer Market." Reinsurance News, Issue 72

[26] Cerulli Quantitative Update. 2102. "U.S. Retirement Market 2012." Cerulli Associates

enormous proportions.

Table 3-5 shows substantial changes in the relative flows of contributions to defined benefit and defined contribution pension plans. Since the late 1970s, there has been a major shift in the way that employers are sponsoring retirement plans. In calendar year 1977, nearly two-thirds (65.8 percent) of all participants in an employer-sponsored retirement plan were in a defined benefit plan (management of plan assets and payment of benefits is the responsibility of the employer), while the other one-third (34.2 percent) were in a defined contribution plan (management of assets and payment of benefits is partially or fully the responsibility of the employee). By CY 1997, the percentages had completely reversed as more than two-thirds (67.8 percent) of all workers were in a defined contribution plan and only about one-third (32.2 percent) were in a defined benefit plan. The shift to defined contribution plans continued through CY 2007, when more than three quarters (77.5 percent) of all participants were involved in defined contribution plans.

Table 3-5 Percentage of Active Participants in Employer-Sponsored Retirement Plans by Type of Plan
(in thousands)



NOTE: Total participant and active participant definitions were changed beginning with the 2005 Private Pension Plan Bulletin. As in previous bulletins, the term "Participants" refers to active, retired, and separated vested participants not yet in pay status. The number of participants also includes double counting of workers in more than one plan. For Form 5500 Short Form filers, this number may also include deceased participants whose beneficiaries are receiving or are entitled to receive benefits.
Source: Department of Labor, Employee Benefits Security Administration, 2014 "Private Pension Plan Bulletin"."

All workers have at least one method available to save for retirement, and many workers have a wide array of options for funding their retirement. These options may include using an employer-sponsored retirement plan and/or saving on their own through an IRA. A significant number of Americans are using individual retirement plans to save for retirement. An average of about 15 million working-age Americans save for retirement through individual retirement plans. This equates to about 8 percent of the working age population.

The shift from defined benefit to defined contribution pension plans was the result of several coincident developments, including regulatory changes and a shift in employment growth from industries that historically offered such plans (such as

manufacturing) to industries that did not (services and trade). The changing regulatory treatment of defined benefit and defined contribution pension plans began with the Employee Retirement and Income Security Act of 1974 (ERISA). ERISA imposed minimum plan standards for participation, vesting, and retirement, as well as requirements for funding past service liability. It also established the Pension Benefit Guaranty Corporation (PBGC) to insure pension benefits to employees in defined benefit plans and financed this insurance program with taxes on existing plans. ERISA placed a low regulatory burden on defined contribution plans, which were subject only to the same minimum plan standards that affected defined benefit plans. Post-ERISA legislation has raised PBGC premiums, required faster funding of liabilities, and penalized employers for claiming excess assets of terminated defined benefit plans.

Variable Annuity Contracts

Both the individual and group markets have changed over time, from markets primarily for fixed annuities to markets with growing use of variable annuities. Fixed annuities provide a guaranteed nominal payout during their liquidation phase. They distribute a given principal across many periods, but they do not provide a constant real (i.e., adjusted for inflation) payout stream if the price level changes. When inflation is low, the real value of the annual distribution will not vary much over the liquidation period. But even modest inflation rates of 3-5 percent per year, if they persist throughout the liquidation period, can lead to substantial erosion in the real value of annuity payouts. At an inflation rate of 3 percent per year, for example, the real value of annuity payouts in the first year of any liquidation period is more than twice that of the same nominal payout 24 years later. At an inflation rate of 6 percent per year, the real value of payouts is halved in only 12 years.

Variable annuities, by design, address the risk of purchasing power erosion that is associated with fixed nominal annuities. Unlike fixed annuities that promise a constant nominal payout, variable annuities provide an opportunity to select a payout that bears a fixed relation to the value of an asset portfolio. If these assets tend to rise in value with the nominal price level, then the payout on the variable annuity will adjust to mitigate, at least in part, the effects of inflation. Because variable annuities are defined in part by the securities that beck them, they are more complex contracts than fixed annuities. In spite of their complexity, however, they have become one of the most rapidly growing annuity products in recent years.

Variable Annuities- How They Work

Variable annuities are structured to have both an investment component and an insurance element. During the accumulation phase, premium payments are used to purchase "investment units," the price depending on the value of the variable annuity's underlying asset portfolio. For example, if this portfolio consists of common stocks and if share prices are high when a premium payment is made, then this payment will buy relatively few units, and vice versa. During the accumulation phase, variable annuities resemble mutual funds in many respects, although there are differences, and the assets in many variable annuity products are explicitly managed by mutual fund providers. The dividends, interest, and capital gains on the assets that underlie the investment units are reinvested to purchase additional investment units. When the accumulation phase of the variable annuity ends, the accumulated value of the investment units is transformed into "annuity units." This transformation occurs as though the accumulation units were cashed out and used to purchase a hypothetical fixed annuity. The annuitant

does not receive a stream of fixed annuity payments, but this hypothetical annuity plays an important role in computing actual payouts. The payout amount for the hypothetical annuity is used to credit the annuitant with a number of annuity units. Many variable annuities also allow annuitants the option of choosing a fixed annuity stream, or some combination of a fixed stream and a variable stream of payouts.

The actual variable annuity payout in each period depends on the number of annuity units that the annuitant is credited with, and, over some range of asset returns, on the value of the assets in the variable annuity's underlying portfolio. If the value of this portfolio rises by more than the increase implicit in the assumed interest rate, after the annuitant has converted to annuity units, for example because of rising nominal prices, then the payout will rise during the payout phase. If the value of the underlying assets falls, however, the value of the payout will also decline. The variable annuity's possibility of fluctuating payments is both an attraction (it provides potential protection against rising consumer prices) and, for some potential buyers, a disadvantage (the nominal payout stream is not certain).

Product innovations have expanded the menu of investment options available for variable annuities. First, the range of portfolio investments that can be held through variable annuity policies has increased. Although the first variable annuities focused exclusively on diversified common stock portfolios, policies now offer variable annuities tied to more specialized portfolios of equities as well as to bonds or other securities. Variable annuities typically allow policyholders to move their assets among various policy sub-accounts, usually with different investment objectives, without fees or penalties. Second, virtually all variable annuities now offer lump-sum withdrawal options after the policy has reached a specified maturity date, as well as the possibility of withdrawing the principal in a set of periodic lump-sum payments. These features make it possible to use variable annuities as an asset accumulation vehicle without necessarily purchasing an annuity-like payout stream when the accumulation phase is over. This is because variable annuity contracts contain a purchase-rate guarantee. Finally, some no-load mutual fund families have begun offering variable annuities in conjunction with some insurance companies in recent years.

The average variable annuity charges a 1.34% fee for insurance and administrative expenses on top of fees for the underlying investment, which average almost 1%. All in, that's an average of almost 2.3%, compared with 1.2% for the average mutual fund, according to Morningstar. Most annuities also have surrender charges, or fees for withdrawing your money. Fees typically begin at 7% or 8% in the first two years after purchase, and decline each year thereafter before expiring after seven to nine years. Fixed index annuities, a variation on fixed annuities, have been gaining attention lately. Most of the portfolio grows at a fixed rate, but a variable component is pegged to an index, typically the S&P 500. While fixed annuities usually beat the rate you would get on a certificate of deposit or a money-market account, their rates have been only between 1.5% and 2.5% these days. Investors have been choosing fixed index annuities as a better-paying alternative. Sales of indexed annuities rose 14% in the first quarter of 2012, the only annuity category whose numbers grew.

Variable Annuity Development

Variable annuities were introduced in the United States by the Teachers lnsurance and Annuities Association-College Retirement Equity Fund (TlAA-CREF) in 1952. The first

variable annuities were qualified annuities that were used to fund pension arrangements. Variable annuities grew slowly during the next three decades-in part, because of the need to obtain regulatory approval for these products from many state insurance departments. Because variable annuities are usually backed by assets, such as corporate stocks, that do not guarantee a fixed minimal payout, the reserves that back these policies are maintained in separate accounts from the other policy reserves of life insurance companies. No major insurance company other than TlAA-CREF had issued a variable annuity policy as of 1960, primarily because state laws prohibited insurers from supplying a new class of products backed by common stock assets that were segregated from the insurer's other assets.

The slow growth experienced in the 1950s and 1960s reversed itself. The growth rate of variable annuity premiums during the 1980's and 1990's was second only to health insurance premiums among insurance products. Between 2005 and 2014, individual annuity premiums increased from $216 billion to $236 billion. For each year in that time frame, variable annuities accounted for over half the sales.

Net Variable-Annuity Results

The third-quarter 2014 sales results for the U.S. annuity industry, based on data reported by Beacon Research and Morningstar, Inc. show industry-wide annuity sales reached $56.9 billion, a 5 percent decline from $59.9 billion in the previous quarter and a 1 percent dip from $57.5 billion in the third quarter of 2013. Variable annuity total sales were flat in the third quarter of 2014, according to Morningstar, coming in at $35.2 billion. This was a 1.1 percent decrease from $35.6 billion in the second quarter of 2014, but a 0.4 percent increase from nearly $35.1 billion in the third quarter of 2013

Data shows only 670,000 contract owners in variable annuity policies in 1977 compared with 3.7 million in individual fixed annuity policies that year. By 1993, the number of variable contract owners had increased to 5.25 million, and the number of fixed contract owners had grown to 21.5 million. Both variable and fixed annuities grew rapidly between the late 1970's and late 1980's. In more recent years, variable annuities have grown faster than fixed annuities. Variable annuity premiums increased fivefold between 1991 and 1994, compared with only a 15 percent increase in premiums for individual fixed annuities. Available data further documents the growth in variable annuities and shows that both individual and group variable annuity policies have expanded in recent years. It shows the growth in capital reserves that life insurance companies hold against variable annuity products. The early growth of variable annuity policies was concentrated in group policies. In the late 1960s, more than 95 percent of the reserves for variable annuity policies were held in group policies. Individual variable annuity policies have grown more quickly than group policies during the last two decades. The policy reserves for individual variable annuity policies surpassed those for group policies in 1987; by 1993, individual variable annuity reserves were more than twice those for group policies.

Table 3-6 Variable Annuity Net Assets

Variable Table 1. Variable Annuity Net Assets

(Dollars in Millions)	6/30/15	3/31/15	12/31/14	9/30/14	6/30/14
Total Net Assets	1,982,827	1,947,169	1,920,355	1,903,325	1,933,805

Source: Morningstar, Inc., and Insured Retirement Institute

Variable Table 2. Quarterly Variable Annuity Total Premium & Net Sales*

	Quarter Ended				
($ Millions)	6/30/15	3/31/15	12/31/14	9/30/14	6/30/14
Total Sales	35,589	31,848	33,576	35,206	35,596
Net Sales**	2,933	-3,519	-3,348	-2,491	1,610
Net Sales as % of total sales **	*8.2%*	*-11.0%*	*-10.0%*	*-7.1%*	*4.5%*

Source: Morningstar, Inc.

**Total Premium Sales,* also called *Total Premium Flows*, represents the sum of new sales [all first-time buyers of a contract, including inter- and intra-company exchanges] and additional premiums from existing contract owners. *Net Sales,* also called *Net Flows,* represents *Total Premium Sales* minus surrenders, withdrawals, inter- and intra-company exchanges, and benefit payments.
**Prior to the first quarter of 2014, Morningstar's net sales figure was determined using a survey process. Beginning with the first quarter of 2014, Morningstar changed its methodology to estimate net sales based on a calculation methodology used across all investment universes for which Morningstar collects and publishes asset and performance data, including global open end mutual funds, separate accounts, and exchange traded funds.

Table 3-7. Variable Annuity Assets by Investment Objective

Variable Table 3. Variable Annuity Assets by Asset Class

(As a percent of total assets)	6/30/15
Equity	41.5%
Allocation	31.2%
Fixed Accounts	16.8%
Bonds	9.1%
Money Market	1.4%

Source: Morningstar, Inc.

Factors Shaping the Market

Several factors shape the individual annuity market in general and to the variable annuity market in particular. First, the opportunity annuities provide for tax-deferred savings is not unique, but it is becoming rarer. Income tax legislation limits and continually changes the opportunity for tax-deferred saving through traditional IRA's (individual retirement arrangements). Changes in tax law over the years has also reduced the amount of tax liability that can be deferred through qualified pension plans, by lowering marginal tax rates, and by limiting the amount of income on which taxpayers could base contributions to qualified plans. Subsequent legislation has continued the pattern of making qualified retirement plans a less attractive means for saving and has even introduced a 15 per cent surtax that applies to withdrawals in excess of $150,000 per year from qualified retirement plans. As these plans have become less attractive, annuities have become relatively more attractive.

Second, demographic trends and the nature of the current budget policy environment suggest continued interest in annuity products. As the baby boom generation ages, when households traditionally begin planning for retirement, products designed to provide retirement are likely to draw attention. There is some anecdotal evidence, that baby boomers have been an active market particularly for variable annuity products[27]. The current uncertainty surrounding the future of Social Security, and the question of whether Social Security will provide as generously for the retirement of aging baby boomers as for that of their parents, is likely *to* generate additional demand for retirement-oriented saving products.
The growth of variable annuities in the 1990's was probably related in part to the increase in stock prices, and the coincident decline in long-term interest rates, that has stimulated investor interest in annuities that offer returns linked to equities rather than fixed income instruments.

Insurers offer a range of different annuity products; these compete in turn with a range of other financial products offered by other financial institutions. Different types of annuities are designed to achieve different objectives, and there are trade-offs in the comparison of annuity products with other investment and insurance vehicles. The central trade-offs that investors must evaluate are the benefits of the insurance that annuities offer, the costs of potential annuity surrender charges, the potential tax advantages to purchasing annuities, the different transaction costs and investment options associated with various financial products.

The Insurance Element

The insurance feature of annuities distinguishes them from many other financial products. All annuities offer insurance against outliving the value of one's resources; some also offer insurance with respect to the rate of return on invested capital. Both fixed and variable annuities insure mortality risk; they are the only products that permit buyers to contract for a guaranteed income for the remainder of their lives. However, while the duration of the income stream is guaranteed for both fixed and variable annuities, the amount of periodic payments is only guaranteed for a fixed annuity.

Many annuities also offer other types of insurance. Some contracts promise that the estate of a purchaser who dies before the accumulation phase has ended will receive the full value of the purchaser's contributions to the annuity. These contracts provide insurance against poor returns on the investments that back the annuity[28]. The nature of such insurance is often quite complex. In January 1994, for example, AIG Life Insurance was marketing a variable annuity policy that provided a death benefit equal to the maximum of the accumulated premiums less withdrawals, the contract value, or the greatest contract value at any sixth anniversary of the policy, plus subsequent deposits net of withdrawals. Valuing such insurance is difficult and requires information on both mortality risk and the random character of investment returns for the assets backing the variable annuity.

Individual annuities typically also provide insurance with respect to changes in the insurance market. Deferred annuities must guarantee the participant the right to purchase an annuity on particular terms some years in the future. This insures against

[27] Covaleski 1994
[28] see Gentry 1994

changes in aggregate mortality risk that result in changes in the pricing of annuities, as well as against changes in expected rates of return that result in modified terms in newly issued annuity contracts.

The cost of providing insurance affects the pricing of annuities, and insurance value must be considered in evaluating potential annuity investments. The management expenses associated with variable annuities typically average between 100 and 150 basis points per year, substantially higher than the comparable expenses for many mutual funds. Variable annuities are therefore most attractive to individuals who value the insurance associated with them and who are prepared to pay for this insurance, or who value the tax-deferred inside build-up associated with these accounts.

Surrender Charges

Annuities, unlike some other financial products, feature a surrender charge. These charges, found in many but not all deferred annuity contracts as part of the initial contractual agreement between the buyer and the annuity provider, stipulate that an annuitant who decides to cancel the policy substantially prior to its maturity date must pay a fee to the insurer. Insurers justify these provisions as needed to recover the commission and other production costs associated with annuity products. When assets are held in an annuity product for a long period until the maturity date, the insurer can cover these costs through the annual management fees and expenses of the annuity. When the annuity contract is terminated prematurely, however, the total collected from such management fees is reduced, and the insurer collects a surrender charge to compensate for these lost fees.

The combination of surrender charges and income tax penalties for premature withdrawal of annuity assets makes long-term investors who do not expect to need their invested assets in the short term the natural market for deferred annuities. There is usually a standard surrender charge of 5-10 percent of the accumulated value, typically with a declining schedule and ceasing after a fixed period of years. These charges can substantially reduce the rate of return on annuity assets for those who terminate their contract prematurely. In addition, the federal income tax levies a 10 percent penalty tax on premature withdrawals from both qualified and nonqualified annuities by individuals under the age of 59 ½. This tax applies only to the income that has been accumulated in the annuity contract. These withdrawal penalties, which are very similar to those on early withdrawals from qualified retirement plans, further encourage annuity investors to accumulate for the long term and reduce the return earned by those who withdraw their assets.

Surrender charges were more prevalent in the 1930s and 1940s than at present. In fact, some annuity products marketed in recent years do not include surrender charges. It has been estimated that approximately one-fourth of annuity reserves are currently accounted for by annuities with no surrender charges, although some of this includes contracts on which surrender charges have expired[29]. An illustration of the potential effect of surrender charges on the returns earned by those who terminate their annuity contract before maturity is provided from the period following WW II. The study focuses on the types of annuities that were common in the early postwar years, focusing on a typical deposit annuity in the 1940's, which imposed a loading charge as well as an

[29] Pallay (1995)

early surrender charge. If the annuitant could directly earn the 3 percent rate of return assumed in the annuity, then the capital fund an investor could build by contributing premium contributions to a personal account would grow faster than the surrender value of the annuity. In each of the first 11 years of a typical annuity policy, the surrender value was less than the sum of the nominal premiums that the annuitant had paid.[30]. Whether an individual could match the return promised in annuity contract depends on existing investment opportunities and the degree to which the insurance firm offering the annuity provides valuable investment direction.

Annuities are not the only products with surrender fees. Some mutual funds impose a special charge on investors who withdraw their assets before a specified holding period. The nature of surrender charges and their effect on the investment return for these products are important factors to consider in comparing annuities with other financial products.

Fees Associated with Annuities

In a comparison of annuities with other investment vehicles, it is important to consider the investment management fees associated with each product. For annuities, these fees take the form of an expense charge that the insurer deducts each year. For a variable annuity, this includes a contract expense fee, as well as a fund expense fee. Other investments managed by fiduciaries also have expense charges. Mutual funds, for example, charge investors for management expenses, and they may also charge up-front loads or redemption fees. Measuring the effective load on annuity products is complex and somewhat controversial and is beyond the scope of this text[31], Annuity loads can arise in part from adverse selection, the possibility that the mortality experience of annuitants is more favorable than that for the population at large. As noted previously, annuitants live longer on average than do randomly chosen individuals from the population at large. This implies that calculations that use the average population mortality experience to compute the expected present discounted value of annuity payouts will make annuities appear less financially attractive than they are for actual annuity purchasers. Studies illustrate the disparity in the effective loads that are calculated using population and annuitant mortality tables. Researchers have concluded that the effective load on individual annuities in the mid-1980's was comparable to that on many other types of insurance[32]. These studies all apply to the market for individually purchased annuities; group annuities may be subject to different effective loads.

Annuities- State and Federal Regulation

The legal and regulatory environment for annuity products is complex and constantly evolving. The substantial regulation of insurance products in general is partly a result of the long-term nature of the commitments associated with many types of insurance. This is particularly evident in annuities, where purchasers make large up-front payments in return for promises of long-term benefit streams. Fixed annuities are regulated as

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[30] Gilbert (1948)
[31] see Greene (1973) and Gifford (1974)
[32] Friedman and Warshawsky (1988) present detailed estimates of the effective loads on immediate fixed annuities in the early 1980s, and Warshawsky (1988) reports historical information on these loads. Mitchell, Poterba, and Warshawsky (1997) present comparable information for the mid-1990s.

insurance products, but variable annuities are regulated both as insurance products and as securities. Variable annuities are subject to federal security regulation as well as to state insurance regulation.
An active current policy debate is centered on the question of whether insurance companies should be the only financial institutions that can sell annuities or whether other institutions such as banks can enter this market, and how they would be regulated if they did. The Gramm, Leach Bliley legislation will determine how this scenario plays.
The history of annuity regulation is intertwined with that of life insurance regulation. Until 1850, there was little regulation of the insurance industry in the United States. Several insurance scandals led to pressure for regulation, and in 1850, New Hampshire became the first state to appoint a commissioner of insurance. Many other states followed suit in the next two decades, and by the early 1870's the insurance industry in virtually all states operated under regulatory control. The primacy of state regulation of insurance markets was confirmed when the U.S. Congress passed the McCarran-Ferguson Act in 1945. State insurance regulations are not uniform, and this can affect the scope of annuity products available to consumers in different places. The slow early growth of variable annuities, after their introduction by TIAA in 1952, may be in part attributable to the requirement that such products receive regulatory approval in each state.
Insurance regulation arose historically in part because of the complexity of insurance products and the relative lack of sophistication on the part of many insurance buyers. Most annuities, like whole life insurance, involve investment decisions as well as decisions about mortality risk. Insurance regulation involves restrictions on the types of policies that can be offered, constraints on how policies can be explained to potential buyers, limits on what constitutes an acceptable expense, and regulations on the capital that insurance companies must have and on the types of investments that they can purchase with assets that are held against future policyholder claims. Insurance regulations are designed to increase the safety and security of income streams purchased by policyholders.

There is a set (a 'legal list') of securities in which insurers may invest. The fraction of their assets that may be held in different securities will affect the insurers return on investment. These regulations have implications for the rates of return that insurance companies can offer on fixed annuity products, since they typically restrict the amount of high-risk (and potentially high-return) securities in insurance portfolios. The foregoing regulations apply to fixed annuities. Group fixed annuities are subject to additional regulations from the provisions of ERISA, largely concerning the structure of contract terms for these products.
Variable annuities are regulated differently then fixed annuities, with insurers maintaining separate asset pools as reserves against variable annuities. This prevents poor returns on the variable annuity portfolio from affecting the capital base for other insurance company products. Variable annuities, because of their investment component, are also regulated in part under the federal securities law. These products are subject to provisions of the Securities Act of 1933, the Securities Exchange Act of 1934, and the Investment Company Act of 1940. The first two acts are largely concerned with the prevention of fraud in the issuance and trading of securities, and the ICA of 1940 empowers the Securities and Exchange Commission to regulate the insurance industry's sales of insurance products with a substantial equity component, such as variable annuities and variable life insurance. Because annuities are both an insurance product and an investment product, there has been a long-standing debate over the set of financial institutions that should be permitted to supply financial products that qualify for annuity tax treatment. The historic rationale for insurance companies

underwriting and selling annuities was that they involved precisely the features, such as risk sharing and indemnification that are the traditional role of insurance firms.

A long-standing debate concerns whether the insurance component of many of the currently popular annuity products is large enough to warrant restricting their provision to insurance firms. The Supreme Court's decision in the *NationsBank v. Variable Annuity Life Insurance Company (VALIC),* case upheld the authority of banks to sell both fixed and variable annuity products. A second issue concerns annuity underwriting. In late 1994, the U.S. Comptroller of the Currency, who regulates the products that banks may offer, tacitly approved the offering of some annuity-like products by some banks. Proposed banking reform legislation places limits on the authority of the Comptroller to authorize such investment products, and the tax treatment of some annuity-like bank products is also a topic of current policy debate. These issues are subject to new developments now that the Financial Modernization Act-(Gramm Leach Bliley) has been passed.

Tax Issues

The tax treatment of annuities is an attractive feature that has added to their growth. The income on assets held in a deferred annuity account is not taxed until the payout phase, which can be many years after the income accrues. Annuities therefore afford and opportunity for asset accumulation at the pre-tax rate of return.
People planning for retirement may purchase annuities with pre-tax or after-tax dollars. As with qualified pension plans, annuities that are qualified (part of a qualified retirement plan) may be purchased with pre-tax dollars; nonqualified annuities are purchased with after-tax dollars.
Between the time the annuity is purchased and the time the contract owner receives payouts, no taxes are due on the dividends, capital gains, or interest earned by the assets in the annuity portfolio. When payouts are received, taxes are due on the difference between the annuity payouts and the annuitant's policy basis. The key tax principle is the derivation of an *exclusion ratio,* an estimate of the ratio of the annuitant's investment in the contract to the total expected payouts on the contract. The exclusion ratio is multiplied by the annuity payout in each period to determine the part of the payout that can be excluded from taxable income. **Other chapters address this topic in detail.**

Contrasting the tax treatment of annuities and mutual fund investments is helpful. Mutual fund investors pay taxes when their fund receives dividends or realizes capital gains. They are liable for both dividend and capital gains taxes even in periods when they do not sell their shares in the fund; when they sell their mutual food shares, they may also be liable for capital gains taxes or eligible for credit for capital losses. Annuity contract owners, in contrast, do not pay any taxes during the accumulation phase of their annuity, although they are liable for a 10 percent early withdrawal penalty and subject to income tax (see above). The annuity provider receives dividends and capital gains, but the annuitant only faces tax liability when payouts from the annuity policy are received. The liquidity of annuities is limited by the fact that the loan, pledge, or assignment of an annuity is treated as a taxable event.

All annuity payouts are taxed as ordinary income, whereas part of the return to mutual fund investments may be taxed at capital gains tax rates, which are lower than ordinary income tax rates for many taxpayers. At death, mutual fund investments are eligible for

a step-up in basis and need not be liquidated. Annuities must be liquidated at death and the proceeds must be distributed and subjected to tax. The opportunity to defer taxes on the investment income from assets held in annuities is a powerful tool for building asset balances. Consider, for example, a 35-year-old considering various saving options to fund retirement income, with retirement beginning at age 65. Assume further that this individual plans to invest in an asset with an expected return of 7 percent per year and that investment income faces a marginal tax rate of 28 percent.

Under these assumptions, an investment of $10,000 at age 35 will cumulate to $45,356 ($fv = pv\ (1 + i)^{30}$ at age 65. assuming that each year's asset income is fully taxed and that the after-tax income is reinvested. If the same $10,000 were invested in a way that permits tax deferral on asset income, for example in an annuity product, and if the pre-tax rate of return on this investment equaled that on the taxable investment, then the principal would cumulate to $81,662 at age 65. Assuming that the withdrawals from this account would be taxed at the 28 percent marginal tax rate and making the conservative assumption that the account value were withdrawn in a lump sum rather than paid out over the annuitant's life, which would permit further asset appreciation, the after-tax value of this account would be,

$$\$61{,}596 = 10.000 \div (1 - 0.28) \times (81{,}662 - 10{,}000)$$

where $10,000 denotes the principal invested. This amount is 35.8 percent greater than the amount in the after-tax investment. If the annuitant faces a marginal tax rate that is lower after retirement than while working, the implied rate-of-return advantage on the tax-deferred annuity vehicle will be even greater. Various tax issues are discussed in other chapters

CHAPTER 4 SECTION 403(b) PLANS

What is a 403(b) Plan?

A 403(b) plan, also known as a tax-sheltered annuity (TSA) plan, is a retirement plan for certain employees of public schools, employees of certain tax-exempt organizations, and certain ministers.

Individual accounts in a 403(b) plan can be any of the following types.

- An annuity contract, which is a contract provided through an insurance company,
- A custodial account, which is an account invested in mutual funds, or
- A retirement income account set up for church employees. Generally, retirement income accounts can invest in either annuities or mutual funds.

Note. Throughout this chapter, wherever the term *403(b) account* is used, it refers to any one of these funding arrangements, unless otherwise specified.

What are the Benefits of Contributing to a 403(b) Plan?

There are three benefits to contributing to a 403(b) plan.

- The first benefit is that taxes are not owed on allowable contributions in the year they are made. Taxes are not paid on allowable contributions until the plan participant begins making withdrawals from the plan, usually after retirement. Allowable contributions to a 403(b) plan are either excluded or deducted from income.
- The second benefit is that earnings and gains on amounts in the 403(b) account are not taxed until they are withdrawn.
- The third benefit is that the individual may be eligible to take a credit for elective deferrals contributed to the 403(b) account.

Excluded. If an amount is excluded from income, it is not included in total wages on the Form W-2. This means that one does not report the excluded amount on the tax return.
Deducted. If an amount is deducted from income, it is included with the individuals other wages on the Form W-2. A person reports this amount on his or her tax return, but the individual is allowed to subtract it when figuring the amount of income on which tax must be paid.

Who Can Participate in a 403(b) Plan?

Any eligible employee can participate in a 403(b) plan.

Eligible employees. The following employees are eligible to participate in a 403(b) plan.

- Employees of tax-exempt organizations established under section 501(c)(3) of the Internal Revenue Code. These organizations are usually referred to as *section 501(c)(3) organizations* or simply *501(c)(3) organizations.*
- Employees of public school systems who are involved in the day-to-day operations of a school.
- Employees of cooperative hospital service organizations.
- Civilian faculty and staff of the Uniformed Services University of the Health Sciences (USUHS).

- Employees of public school systems organized by Indian tribal governments.
- Certain ministers (explained next).

Ministers. The following ministers are eligible employees for whom a 403(b) account can be established.

1) Ministers employed by section 501 (c)(3) organizations.
2) Self-employed ministers. A self-employed minister is treated as employed by a tax-exempt organization that is a qualified employer.
3) Ministers (chaplains) who meet both of the following requirements.
    a) They are employed by organizations that are not section 501 (c)(3) organizations.
    b) They function as ministers in their day-to-day professional responsibilities with their employers.

Note. Throughout this chapter, the term *chaplain* will be used to mean ministers described in the third category in the list above.
Example. A minister employed as a chaplain by a state-run prison and a chaplain in the United States Armed Forces are eligible employees because their employers are not section 501 (c)(3) organizations and they are employed as ministers.

Who Can Set Up a 403(b) Account?

An individual cannot set up his or her own 403(b) account. Only employers can set up 403(b) accounts. A self-employed minister cannot set up a 403(b) account for his or her benefit. If a person is a self-employed minister, only the organization (denomination) with which the minister is associated can set up an account for his or her benefit.

How Can Contributions Be Made to The 403(b) Account?

Generally, only the employer can make contributions to a 403(b) account. However, some plans will allow the plan participant to make after-tax contributions (defined later). The following types of contributions can be made to 403(b) accounts.

1) Elective deferrals. These are contributions made under a salary reduction agreement. This agreement allows the employer to withhold money from an individual's paycheck to be contributed directly into a 403{b) account for his or her benefit. The participant does not pay tax on these contributions until they are withdrawn from the account.
2) Nonelective contributions. These are employer contributions that are not made under a salary reduction agreement. The participant does not pay tax on these contributions until they are withdrawn from the account. Nonelective contributions include matching contributions, discretionary contributions, and mandatory contributions from the employer.
3) After-tax contributions. These are contributions made with funds that an individual must include in income on his or her tax return. A salary payment on which income tax has been withheld is a source of these contributions. If the plan allows the person to make after-tax contributions, they are not excluded from income and one may not deduct them on the tax return.
4) A combination of any of the three contribution types listed above.

Self-employed minister. If a person is a self-employed minister, he or she is considered both an employee and an employer, and the individual can contribute to a retirement income account for his or her own benefit.

Reporting Contributions on the Tax Return

Generally, one does not report contributions to the 403{b) account on the tax return. The employer will report contributions on the plan participant's Form W-2. Elective deferrals will be shown in box 12 and the *Retirement plan* box will be checked. If someone is a self-employed minister or chaplain, see the discussions below.

Self-employed ministers. If an individual is a self-employed minister, he or she must report the total contributions as a deduction on the tax return. Contributions should be deducted on line 31 of Form 1040.

Chaplains. If someone is a chaplain and his or her employer does not exclude contributions made to the 403(b) account from earned income, the plan participant may be able to take a deduction for those contributions on his or her tax return. However, if the employer has agreed to exclude the contributions from earned income, the employee/chaplain will not be allowed a deduction on his or her tax return. If the taxpayer can take a deduction, enter the contributions on line 34 of Form 1040. On the dotted line next to line 34, *403(b),* should be written.

How Much Can Be Contributed to the 403(b) Account?

There are limits on the amount of contributions that can be made to a 403(b) account each year. If contributions made to the 403(b) account are more than these contribution limits, penalties may apply.

The following sections provide information on how to determine the amount that can be contributed to a 403(b) account. Worksheets are provided to help the plan participant determine the maximum amount that can be contributed to the 403(b) account each year. The section, *Excess Contributions,* describes steps which can be taken to prevent excess contributions and to get an excess contribution corrected.

Maximum Amount Contributable (MAC)

Throughout this information on 403(b) plans, the limit on the amount that can be contributed to a 403(b) account for any year is referred to as the maximum amount contributable (MAC). This section:
Introduces the components of the MAC,
Explains how to figure the MAC, and
Shows when to figure the MAC.

Components of the MAC

Generally, before anyone can determine the MAC, he or she must first figure the components of MAC. The components of the MAC are:

- The limit on annual additions and
- The limit on elective deferrals

How To Figure MAC

Generally, contributions to the 403(b) account are limited to the lesser of:

- The limit on annual additions, or
- The limit on elective deferrals.

Which limit applies Depending upon the type of contributions made to a 403(b) account, only one of the limits may apply. Whether a person must apply one or both of the limits depends on the type of contributions made to his or her 403(b) account during the year.

Elective deferrals only- If the only contributions made to a 403{b) account during the year were elective deferrals made under a salary reduction agreement, the plan participant will need to figure both of the limits. MAC is the lesser of the two limits.

Nonelective contributions only- If the only contributions made to the 403(b) account during the year were nonelective contributions (employer contributions not made under a salary reduction agreement), an individual will only need to figure the limit on annual additions. The MAC is the limit on annual additions.

Elective deferrals and nonelective contributions- If the contributions made to a 403(b) account were a combination of both elective deferrals made under a salary reduction agreement and nonelective contributions (employer contributions not made under a salary reduction agreement), the taxpayer will need to figure both the limits. The individual's MAC is the limit on the annual additions. One needs to figure the limit on elective deferrals to determine if he or she has excess elective deferrals, which are explained later. Worksheets can be found in this section to help figure the MAC.

When MAC Should be Figured

At the beginning of a new tax year, the plan participant should refigure the previous year's MAC based on actual compensation for that year. This will allow an individual to determine if the amount that has been contributed to the 403{b) account for the year in question has exceeded the allowable limits. In some cases, this will allow a person to avoid penalties and additional taxes, as discussed in *Excess Contributions*, later. Generally, one should figure the MAC for the current year at the beginning of each tax year using a conservative estimate of the taxpayer's compensation. If the compensation changes during the year, the individual should refigure his or her MAC based on a revised conservative estimate. By doing this, someone can to determine if contributions to his or her 403(b) account can be increased or should be decreased for the year

Limit on Annual Additions

The first component of MAC is the limit on annual additions. This is a limit on the total contributions (elective deferrals, nonelective contributions and after-tax contributions) that can be made to the 403(b) account. The limit on annual additions generally is the lesser of:

- $40,000, or
- 100% of a person's includible compensation for the most recent year of service.

More than one 403(b) account. If someone contributed to more than one 403(b) account, the individual must combine the contributions made to all 403(b) accounts on his or her behalf by the employer.

Participation in a qualified plan. If someone participated in a 403(b) plan and a qualified plan, the individual must combine contributions made to the 403(b) account with contributions to a qualified plan and simplified employee pensions of all corporations, partnerships, and sole proprietorships in which he or she has more than 50% control.

Part I of Worksheet 1 can be used to figure the limit on annual additions.
Ministers and church employees. If an individual is a minister or a church employee, he or she may be able to increase their limit on annual additions or use different rules when figuring the limit on annual additions. For more information, see the section titled *Ministers and Church Employees*.

Includible Compensation for the Most Recent Year of Service

When figuring the includible compensation for the taxpayer's most recent year of service, it should be kept in mind that the most recent year of service may not be the same as the employer's most recent annual work period. This can happen if someone's tax year is not the same as the employer's annual work period. When figuring includible compensation for the most recent year of service, one should not mix compensation or service of one employer with compensation or service of another employer.

Most Recent Year of Service

A person's most recent year of service is the last full year of service, ending on the last day of the tax year that an individual worked for the employer that maintains a 403(b) account on his or her behalf
Tax year different from employer's annual work period. If the tax year is not the same as the employer's annual work period, an individual's most recent year of service is made up of parts of at least two of the employer's annual work periods
Example. A professor who reports her income on a calendar-year basis is employed on a full-time basis by a university that operates on an academic year (October through May). For purposes of figuring her includible compensation for her most recent year of service for 20x2, the professor's most recent year of service consists of her service performed during January through May of 20x2 and her service performed during October through December of 20x2.

Figuring Most Recent Year of Service

To figure the most recent year of service, one begins by determining what constitutes a full year of service for his or her position. A full year of service is equal to full-time employment for the employer's annual work period. After identifying a full year of service, one begins counting the service he or she had provided for their employer starting with the service provided in the current year.

Part-time or employed only part of year. If a person is a part-time employee, or a full-time employee who is employed for only part of the year, his or her most recent year of service consists of the service this year and service for as many previous years as is necessary to total one full year of service. One adds up his or her most recent periods of service to determine the most recent year of service. First, taken into account must be service during the year for which the person is figuring the limit on annual additions. Then, one adds service during the next preceding tax year, and years before that, until either the total service equals 1 year of service or the individual has taken into account all of his or her service with the employer.

Example. You were employed on a full-time basis during the months July through December 20x0 (1/2 year of service), July through December 20x1 (1/2 year of service), and October through December 20x2 (1/4 year of service) Your most recent year of

service for purposes of computing your limit on annual additions for 20x2 is the total of your service during 20x2 (1/4 year of service), your service during 20x1 (1/2 year of service), and your service during the months October through December 20x0 (1/4 year of service).

Not yet employed for 1 year. If, at the close of the year, a person has not yet worked for the employer for 1 year (including time worked for the same employer in all earlier years), he or she would use the period of time worked for the employer as the most recent year of service.

Includible Compensation

After identifying the most recent year of service, the next step is to identify the includible compensation associated with that full year of service. Includible compensation is not the same as income included on someone's tax return. Compensation is a combination of income and benefits received in exchange for services provided to an employer. Generally, includible compensation is the amount of income and benefits:

- Received from the employer who maintains the 403(b) account, and
- That must be included in income.

A person determines the amount that must be included in income without taking into account the foreign earned income exclusion. Includible compensation *does* include the following amounts.

- Elective deferrals (employer's contributions made on a person's behalf under a salary reduction agreement).
- Amounts contributed or deferred by an employer under a section 125 cafeteria plan.
- Amounts contributed or deferred, at the election of the employee, under an eligible section 457 non-qualified deferred compensation plan (state or local government or tax-exempt organization plan).
- Wages, salaries, and fees for personal services eared with the employer maintaining the 403(b) account.
- Income otherwise excluded under the foreign earned income exclusion.
- The value of qualified transportation fringe benefits (including transit passes, certain parking, and transportation in a commuter highway vehicle between someone's home and work).

Includible compensation *does not* include the following items.

1) An employer's contributions to the 403(b) account.
2) Compensation earned while the employer was not an eligible employer.
3) The employer's contributions to a qualified plan that:
    a) Are on the plan participant's behalf, and
    b) Which can excluded from income.
4) The cost of incidental life insurance.

Note. If a person is a church employee or a foreign missionary, includible compensation is figured using the rules explained in the *Ministers and Church Employees* section.

Contributions after retirement. Nonelective contributions may be made for an employee for up to five years after retirement. These contributions would be based on includible compensation for the last year of service before retirement.

Cost of Incidental Life Insurance

Includible compensation does not include the cost of incidental life insurance.
Note. If all of a person's 403(b) accounts invest only in mutual funds, then he or she has no incidental life insurance. If someone has an annuity contract, a portion of the cost of that contract may be for incidental life insurance. If so, the cost of the insurance is taxable to the individual in the year contributed and is considered part of the basis when distributed. The employer will include the cost of a person's insurance as taxable wages in box 1 of Form W-2. Not all annuity contracts include life insurance. One should contact his or her plan administrator to determine if the account includes incidental life insurance. If it does, the plan participant will need to figure the cost of life insurance each year the policy is in effect.

Figuring the cost of incidental life insurance. If someone has determined that part of the cost of an annuity contract is for an incidental life insurance premium, he or she will need to determine the amount of the premium and subtract it from the includible compensation. To determine the amount of the life insurance premiums the individual will need to know the following information.

- The value of the life insurance contract, which is the amount payable upon the named insured's death.
- The cash value of the life insurance contract at the end of the tax year.
- The taxpayer's age on his or her birthday nearest the beginning of the policy year.
- The current life insurance protection under an ordinary retirement income life insurance policy, which is the amount payable upon death minus the cash value of the contract at the end of the year

One should use Worksheet A, *Cost* of *Incidental Life Insurance* to determine the cost of incidental life insurance.

Figure 4-1. Uniform One-Year Term Premiums for $1,000 Life Insurance Protection

Age	Cost		Age	Cost
15	$1.27		32	2.70
16	1.38		33	2.86
17	1.48		34	3.02
18	1.52		35	3.21
19	1.56		36	3.41
20	1.61		37	3.63
21	1.67		38	3.87
22	1.73		39	4.14
23	1.79		40	4.42
24	1.86		41	4.73
25	1.93		42	5.07
26	2.02		43	5.44
27	2.11		44	5.85
28	2.20		45	6.30
29	2.31		46	6.78
30	2.43		47	7.32
31	2.57		48	7.89

Age	Cost		Age	Cost
49	$ 8.53		66	34.28
50	9.22		67	37.31
51	9.97		68	40.59
52	10.79		69	44.17
53	11.69		70	48.06
54	12.67		71	52.29
55	13.74		72	56.89
56	14.91		73	61.89
57	16.18		74	67.33
58	17.56		75	73.23
59	19.08		76	79.63
60	20.73		77	86.57
61	22.53		78	94.09
62	24.50		79	102.23
63	26.63		80	111.04
64	28.98		81	120.57
65	31.51			

Note. If the current published premium rates per $1,000 of insurance protection charged by an insurer for individual one-year term life insurance premiums available to all standard risks are lower than those in the preceding table, the lower rates can be used

for figuring the cost of insurance in connection with individual policies issued by the same insurer.

Example. Your new contract provides that your beneficiary will receive $10,000 if you should die anytime before retirement. Your cash value in the contract at the end of the first year is zero. Your current life insurance protection for the first year is $10,000 ($10,000 minus 0). The cash value in the contract at the end of year two is $1,000, and the current life insurance protection for the second year is $9,000 ($10,000 -$1,000). The one-year cost of the protection can be calculated by using Figure 4-1, *Uniform One-Year Term Premiums for $1,000 Life Insurance Protection* The premium rate is determined according to your age on your birthday nearest the beginning of the policy year.

***Example* 1**. Lynne Green and her employer enter into a 403(b) plan that will provide her with a $500 a month annuity upon retirement at age 65. The agreement also provides that if she should die before retirement, her beneficiary will receive the greater of $20,000 or the cash surrender value in the life insurance contract. Using the facts presented we can determine the cost of Lynne's life insurance protection as shown in Table 4-1. Lynne's employer has included $117 for the cost of the life insurance protection in her current year's income. When figuring her includible compensation for this year, Lynne will subtract $117.

Table 4-1. Worksheet A. Cost of Incidental Life Insurance

Note: *This worksheet is used to figure the cost of incidental life insurance included in a plan participant's annuity contract. This amount will be used to figure includible compensation for the most recent year of service.*

1. *Enter* the value of the contract (amount payable upon death)	...1.	$20.000
2. Enter the cash value in the contract at the end of the year.	2.	-0-
3. Subtract line 2 from line 1 This is the value of the current life insurance protection.	3.	$20,000
4. Enter age on the birthday nearest the beginning of the policy year.	4.	44
5. Enter the 1-year term premium for $1,000 of life insurance based on age. (From Figure 4-1)	5.	$5.85
6. Divide line 3 by $1,000	6.	20
7. Multiply line 6 by line 5 This is the cost of the incidental life insurance	7	$117

***Example* 2**. Lynne's cash value in the contract at the end of the second year is $1,000. In year two, the cost of Lynne's life insurance is calculated as shown in Table 4-2.

Table 4-2. Worksheet A. Cost of Incidental Life Insurance
Note: *Use this worksheet to figure the cost of incidental life insurance included in the annuity contract. This amount will be used to figure includible compensation for the most recent year of service.*

1. Enter the value of the contract (amount payable upon death)	1.	$20,000.00
2. Enter the cash value in the contract at the end of the year	2.	1,000.00
3. Subtract line 2 from line 1. This is the value of current life insurance protection	3.	$19,000.00
4. Enter age on the birthday nearest the beginning of the policy year.	4.	45
5. Enter the 1-year term premium for $1,000 of life insurance based on age. (From Figure 4-1)	5.	$6.30
6. Divide line 3 by $1.000	6.	19
7. Multiply line 6 by line 5 This is the cost of the incidental life insurance	7.	$119.70

In year two, Lynne's employer will include $119.70 in her current year's income. Lynne will subtract this amount when figuring her includible compensation.

Figuring Includible Compensation for the Most Recent Year of Service
Worksheet B can be used to determine the includible compensation for an individual's most recent year of service.
Example. Floyd has been periodically working full time for a local hospital since September 20x0. He needs to figure his limit on annual additions for 20x3. The hospital's normal annual work period for employees in Floyd's general type of work runs from January to December. During the periods that Floyd was employed with the hospital, the hospital has always been eligible to provide a 403(b) plan to employees. Additionally, the hospital has never provided the employees with a 457 deferred compensation plan, transportation benefits, or a cafeteria plan. Floyd has never worked abroad and there is no life insurance provided under the plan.

Table 4-3 shows the service Floyd provided to his employer, his compensation for the periods worked and his elective deferrals. The increase between 20x2 and 20x3 is due to new skills.

Table 4-3. Floyd's Compensation
Note: *This table shows information Floyd will use to figure includible compensation for his most recent year* of *service*

Year	Years of Service	Taxable Wages	Elective Deferrals
20x3	*6/12* of a year	$42,000	$2,000
20x2	4/12 of a year	$16,000	$1,650
20x1	*4/12* of a year	$16,000	$1,650

Table 4-4. Worksheet B. Includible Compensation for the Most Recent Year of Service*

Note: *Use this worksheet to figure includible compensation for the most recent year* of *service.*

1. Enter includible wages from the employer maintaining the 403(b} account for the most recent year of service	1.	$66.000
2. Enter elective deferrals for the most recent year of service	2.	$ 4.475
3. Enter amounts contributed or deferred by the employer under a cafeteria plan for the most recent year of service	3.	0
4. Enter amounts contributed or deferred by the employer to a 457 account (a nonqualified plan of a state or local government, or of a tax-exempt organization) for the most recent year of service	4.	. 0
5. Enter the value of qualified transportation fringe benefits received from the employer.	5.	0
6. Enter the foreign earned income exclusion for the most recent year of service.	6.	0
7. Add lines 1, 2, 3. 4. 5, and 6	7.	$70.475
8. Enter the cost of incidental life insurance that is part of an annuity contract for the most recent year of service	8.	0
9. Enter compensation that was both: • Earned during the most recent year of service, and • Earned while the employer was not qualified to maintain a 403(b) plan.	9.	0
10. Add lines 8 and 9	10.	0
11. Subtract line 10 from line 7. This is the includible compensation for the most recent year of service	11.	$70.475
**Use estimated amounts* if *figuring includible compensation before the end* of *the year.*		

Before Floyd can figure his limit on annual additions, he must figure includible compensation for his most recent year of service. Because Floyd did not work for the entire year in 20x3, his most recent year of service will include the time he worked in 20x3 plus time he worked in the preceding 3 years until the time he worked for the hospital totals one year. If the total is less than one year, Floyd will treat it as if it were one year. He figures his most recent year of service shown in the following list.

- Time worked in 20x3 is 6/2 of a year.
- Time worked in 20x2 is 4/2 of a year. All of this time will be used to determine Floyd's

most recent year of service.

- Time worked in 20x1 is 4/2 of a year. Floyd only needs 2 months of the 4 months he worked in 20x1 to have enough time to total one full year. Because he needs only one-half of the actual time he worked. Floyd will use only one-half of his income earned during that period to calculate wages that will be used in figuring his includible compensation.

Using the information provided in Table 4-3, wages for Floyd's most recent year of service are $66,000 ($42,000 + $16,000 + $8,000) His includible compensation for his most recent year of service is figured as shown in Table 4-4. After figuring his includible compensation, Floyd determines his limit on annual additions for 20x3 to be $40,000, the lesser of his includible compensation, $70,475 (Table 4-4), and the maximum amount of $40,000.

Limit on elective deferrals

The second, and final, component of MAC is the limit on elective deferrals. This is a limit on the amount of contributions that can be made to an account through a salary reduction agreement.

A ***salary reduction agreement*** is an agreement between an individual and his or her employer allowing for a portion of compensation to be directly invested in a 403(b) account on behalf of the employee. A person can enter into more than one salary reduction agreement during a year.

More than one 403(b) account. If; for any year, elective deferrals are contributed to more than one 403(b) account for someone (whether or not with the same employer), he or she must combine all the elective deferrals to determine whether the total is more than the limit for that year.

403(b) plan and another retirement plan. If; during the year, contributions in the form of elective deferrals are made to other retirement plans on an individual's behalf; he or she must combine all of the elective deferrals to determine if they are more than the limit on elective deferrals. The limit on elective deferrals applies to amounts contributed to:

- 401 (k) plans, to the extent excluded from income,
- Section 501(c)(18) plans, to the extent excluded from income,
- SIMPLE plans,
- Simplified employee pension (SEP) plans, and
- All 403(b) plans.

Excess elective deferrals. If the amount contributed is more than the allowable limit, the taxpayer must include the excess in gross income for the year contributed. This is explained in the Excess Contributions section.

General Limit

Under the general limit on elective deferrals, the most that can be contributed to a 403(b) account through a salary reduction agreement for 2015 through 2017 was $18,000. The limit for 2018 is $18,500. This limit applies without regard to community property laws.

15-Year Rule

If an individual has at least 15 years of service with a public school system, hospital, home health service agency, health and welfare service agency, church, or convention

or association of churches (or associated organization), the limit on elective deferrals to the 403(b) account is increased by the least of:

- $3,000,
- $15,000, reduced by increases to the general limit allowed in earlier years because of this rule, or
- $5,000 times the number of years of service for the organization, minus the total elective deferrals made by the employer on the employee's behalf for earlier years.

If a person qualifies for the 15-year rule, his or her elective deferrals under this limit can be as high as $14,000 for 20x2 and $15,000 for 20x3. The information below can be used to determine whether someone has 15 years of service with an employer.

Years of Service

To determine if eligible for the increased limit on elective deferrals, the person will first need to figure his or her *years* of *service.* How to figure years of service depends on whether an individual was a full-time or a part-time employee, whether he or she worked for the full year or only part of the year, and whether the person had worked for the employer for an entire year. One must figure years of service for each year during which he or she worked for the employer who is maintaining the 403(b) account. If more than one employer maintains a 403(b) account for a person in the same year, he or she must figure years of service separately for each employer.

Definition

Years of service are the total number of years worked for the employer maintaining the 403(b) account as of the end of the year.

Figuring Years of Service

One should take the following rules into account when figuring years of service.
Status of employer- Years of service include only periods during which the employer was a qualified employer. The plan administrator can determine whether or not the employer was qualified during all periods of service.
Service with one employer. Generally, a person cannot count service for any employer other than the one who maintains the 403(b) account.
Church employee*.* If a person is a church employee, he or she should treat all years of service with related church organizations as years of service with the same employer. For more information about church employees, see the section titled *Ministers and Church Employees.*
Self-employed ministers. If a person is a self-employed minister, his or her years of service include full and part years in which they have been treated as employed by a tax-exempt organization that is a qualified employer.

Less than one year of total service. Years of service cannot be less than one year. If at the end of a tax year, someone has less than one year of service (including service in any previous years), the limit on annual additions should be figured as if the plan participant had one year.
Total years of service. When figuring years of service, figure each year individually and then add the individual years of service to determine the total years of service, ending with the year for which the limit on annual additions is being calculated. The total years of service will be used when figuring the limit on annual additions.

Example. The annual work period for full-time teachers employed by ABC Public Schools is September through December and February through May. Marsha began working with ABC schools in September several years ago. She has always worked full time for each annual work period. At the end of 20x2, Marsha had 4.5 years of service with ABC Public Schools, as shown in Table 4-5.

Table 4-5 Marsha's Years of Service

Note: *This table shows how Marsha figures her years of service,* as *explained in the previous example.*

Year	Period worked	Portion of Work Period	Years of Service
20x8 (year 1)	Sept.-Dec	.5 year	.5 year
	Feb.-May	.5 year	
20x9 (year 2)	Sept.-Dec	.5 year	1 year
	Feb.-May	.5 year	
20x0 (year 3)	Sept.-Dec	.5 year	1 year
	Feb.-May	.5 year	
20x1 (year 4)	Sept.-Dec	.5 year	1 year
	Feb.-May	.5 year	
20x2 (year 5)	Sept.-Dec	.5 year	1 year
Total Years of Service			4.5 years

Full time or part time. To figure years of service, each year must be analyzed individually and then the determination made as to whether someone worked full time for the full year or something other than full time. When determining whether work was full time or something other than full time, the employee should use the *employer's annual work period* as the standard.

Employer's annual work period. The employer's annual work period is the usual amount of time an individual working full time in a specific position is required to work. Generally, this period of time is expressed in days, weeks, months, or semesters and can span two calendar years.

Example. All full-time teachers at ABC Public Schools are required to work both the September through December semester and the February through May semester. Therefore, the annual work period for full-time teachers employed by ABC Public Schools is September through December and February through May. Teachers at ABC Public Schools who work both semesters in the same calendar year are considered working a full year of service in that calendar year.

Full-Time Employee for the Full Year

Each full year during which a person was employed full time should be counted as one year of service. In determining whether employed full time, one should compare the amount of work that was required to be performed with the amount of work normally required of others who held the same position with the same employer and who generally received most of their pay from the position.

How to compare. Any method can be used that reasonably and accurately reflects the amount of work required. For example, if the plan participant is a teacher, he or she can use the number of hours of classroom instruction as a measure of the amount of work required. In determining whether positions with the same employer are the same, consider all of the facts and circumstances concerning the positions, including the work performed, the methods by which pay is determined, and the descriptions (or titles) of

the positions.

Example. An assistant professor employed in the English department of a university will be considered a full-time employee if the amount of work that he or she is required to perform is the same as the amount of work normally required of assistant professors of English at that university who get most of their pay from that position. If no one else works for your employer in the same position, compare your work with the work normally required of others who held the same position with similar employers or similar positions with your employer.

Full year of service. A full year of service for a particular position means the usual annual work period of anyone employed full time in that general type of work at that place of employment.

Example. If a doctor works for a hospital 12 months of a year except for a one-month vacation, the doctor will be considered as employed for a full year if the other doctors at that hospital also work 11 months of the year with a one-month vacation. Similarly, if the usual annual work period at a university consists of the fall and spring semesters, an instructor at that university who teaches these semesters will be considered as working a full year.

Other Than Full Time for the Full Year

If, during any year, someone was employed full time for only part of his or her employer's annual work period, part time for the entire annual work period, or part time for only part of the work period, the employee's year of service for that year is a fraction of the employer's annual work period.

Full time for part of the year. If, during a year, a person was employed full time for only part of the employer's annual work period, the fraction for that year is figured as follows.

- The numerator (top number) is the number of weeks, months, or semesters the person was a full-time employee.
- The denominator (bottom number) is the number of weeks, months, or semesters considered the normal annual work period for the position.

Example. Jason was employed as a full-time instructor by a local college for the 4 months of the 20x2 spring semester (February 20x2 through May 20x2). The annual work period for the college is 8 months (February through May and July through October). Given these facts, Jason was employed full time for part of the annual work period and provided ½ of a year of service. Jason's years of service computation for 20x2 is as follows.

Number of months Jason worked . / Number of months in annual work period	=	4 . / 8	=	1 . / 2

Part time for the full year. If, during a year, a person was employed part time for the employer's entire annual work period, figure the fraction for that year as follows.

- The numerator (top number) is the number of hours or days worked.
- The denominator (bottom number) is the number of hours or days required of someone holding the same position who works full time.

Example. Vance teaches one course at a local medical school. He teaches 3 hours per

week for two semesters. Other faculty members at the same school teach 9 hours per week for two semesters. The annual work period of the medical school is two semesters. An instructor teaching 9 hours a week for two semesters is considered a full-time employee. Given these facts, Vance has worked part time for a full annual work period. Vance has completed 1/3 of a year of service, figured as shown below.

Number of hours per week Vance worked . / Number of hours per week considered full time	=	3 . / 9	=	1 . / 3

Part time for part of the year. If, during any year, an individual was employed part time for only part of the employer's annual work period, the fraction for that year is figured by multiplying two fractions. The first fraction is figured as though someone had worked full time for part of the annual work period. The fraction is as follows.

- The numerator (top number) is the number of weeks, months, or semesters spent as a full-time employee.
- The denominator (bottom number) is the number of weeks, months, or semesters considered the normal annual work period for the position.

The second fraction should be figured as though a person had worked part time for the entire annual work period. The fraction is as follows.

- The numerator (top number) is the number of hours or days worked.
- The denominator (bottom number) is the number of hours or days required of someone holding the same position who works full time.

Once these two fractions are figured, multiply them together to determine the fraction representing the partial year of service for the year.

Example. Maria, an attorney, teaches a course for one semester at a law school. She teaches 3 hours per week. The annual work period for teachers at the school is two semesters. All full-time instructors at the school are required to teach 12 hours per week. Based on these facts, Maria is employed part time for part of the annual work period. Her year of service for this year is determined by multiplying two fractions. Her computation is as follows.

Maria's first fraction

Number of semesters Maria worked . / Number of semesters in an annual work period	=	1 . / 2

Maria's second fraction

Number of hours Maria worked per week . / Number of hours per week considered full time	=	3 . / 12	=	1 . / 4

Maria would multiply these fractions to obtain the fractional year of service:

$$\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$$

Figuring the Limit on Elective Deferrals

Part II of Worksheet 1 can be used to figure the limit on elective deferrals.

Example Floyd has figured his limit on annual additions. The only other component needed before he can determine his MAC for 20x3 is his limit on elective deferrals.

Figuring Floyd's limit on elective deferrals. Floyd has been employed with his current employer for less than 15 years. He is not eligible for the special 15-year increase. Therefore, his limit on elective deferrals for 20x3 is $12,000, as shown in Table 4-6. Floyd's employer will not make any nonelective contributions to his 403(b) account and Floyd will not make any after-tax contributions.
Figuring Floyd's MAC Floyd has determined that his limit on annual additions for 20x3 is $40,000 and his limit on elective deferrals is $12,000. Because elective deferrals are the only contributions made to Floyd's account, the maximum amount that can be contributed to a 403(b) account on Floyd's behalf in 20x3 is $12,000, the lesser of both limits.

Table 4-6 Worksheet 1. Maximum Amount Contributable (MAC)
Note. *Use this worksheet to figure the MAC*

Part I. Limit on Annual Additions		
1. Enter the includible compensation for the most recent year of service	1.	$70,475
2. Maximum	2.	$40,000
3. Enter the lesser of line 1 or line 2. This is the limit on annual additions	3.	$40,000
Caution: If the plan participant had only nonelective contributions, skip Part II and enter the amount from line 3 on line 16.		

Part II. Limit on Elective Deferrals		
4. Maximum contribution • For 20x2, enter $11,000 • For 20x3, enter $12,000	4.	$12,000
Note. If the person has at least 15 years of service with a qualifying organization, complete lines 5 through 15. If not, enter zero (-0-) on line 14 and go to line 15.		
5. Amount per year of service	5	. $ 5,000
6.. Enter years of service	6.	.
7. Multiply line 5 by line 6	7.	_____ .
8. Enter the total of all elective deferrals for prior years made for the employee by qualifying organizations	8.	. _____ .
9. Subtract line 8 from line 7. If zero or less, enter zero (-0-)	9.	.
10. Maximum increase in limit for long service	10.	$15,000

11. Enter all prior year increases in the limit for long service	11.	.
12. Subtract line 11 from line 10	12.	.
13. Maximum additional contributions	13.	$3,000
14. Enter the least of lines 9,12, or 13. This is the increase in the limit for long service	14.	-0-
15. Add lines 4 and 14. This is the limit on elective deferrals	15.	$12,000
Part III. Maximum Amount Contributable		
16. • If someone had *only nonelective contributions,* enter the amount from line 3. This is his or her MAC. • If a person had *only elective deferrals,* enter the lesser of lines 3 or 15. This is their MAC. • If an individual had *both elective deferrals and nonelective contributions,* enter the amount from line 3. This is the MAC. (Use the amount on line 15 to determine if there are excess elective deferrals as explained in *Excess Contributions* section.)	16.	$12,000

Ministers and Church Employees

Self-employed ministers and church employees who participate in 403(b) plans generally follow the same rules as other 403(b) plan participants. This means that if someone is a self-employed minister or a church employee, his or her MAC generally is the lesser of:

- The limit on annual additions, or
- The limit on elective deferrals.

For most ministers and church employees, the limit on annual additions is figured without any changes. This means that if a person is a minister or church employee, their limit on annual additions generally is the lesser of:

- $53,000 (for 2015 and 2016), or
- The includible compensation for his or her most recent year of service.

Although, in general, the same limit applies, church employees can choose an *alternative limit* and there are changes in how church employees, foreign missionaries, and self-employed ministers figure includible compensation for the most recent year of service. This section will explain the alternative limit and the changes.

Who is a church employee? A church employee is anyone who is an employee of a church (or a convention or association) of churches, including an employee of a tax-exempt organization controlled by or associated with a convention or association of churches.

Alternative Limit for Church Employees
If someone is a church employee, he or she can choose to use $10,000 a year as their limit on annual additions. Total contributions over a person's lifetime under this choice cannot be more than $40,000.

Changes to Includible Compensation for Most Recent Year of Service

There are two types of changes in determining includible compensation for the most recent year of service. They are:

- Changes in how the includible compensation of foreign missionaries and self-employed ministers is figured, and
- A change to the years that are counted when figuring the most recent year of service for church employees and self-employed ministers.

Changes to Includible Compensation

Includible compensation is figured differently for foreign missionaries and self-employed ministers.

Foreign missionary. If someone is a foreign missionary, his or her includible compensation does not include contributions made by the church during the year to the 403(b) account. If an individual is a foreign missionary, contributions to the 403(b) account will not be treated as exceeding the limit on annual additions if the contributions are not more than the greater of:

- $3,000, or
- 100% of includible compensation.

A person is a foreign missionary if he or she is either a layperson or a duly ordained, commissioned, or licensed minister of a church and meets both of the following requirements.

- Is an employee of a church or convention or association of churches.
- Is performing services for the church outside the United States.

Self-employed minister. If an individual is a self-employed minister, he or she is treated as an employee of a tax-exempt organization that is a qualified employer. The person's includible compensation is net earnings from ministry minus the contributions made to the retirement plan on the plan participant's behalf and the deduction for one-half of the self-employment tax.

Changes to Years of Service

Generally, only service with the employer who maintains the 403(b) account can be counted when figuring an employee's limit on annual additions.

Church employees. If someone is a church employee, all of the years of service should be treated as an employee of a church or a convention or association of churches as years of service with one employer.

Self-employed minister. If someone is a self-employed minister, his or her years of service include full and part years during which they were self-employed.

Catch-Up Contributions

The most that can be contributed to a 403{b) account is the lesser of the limit on annual additions or the limit on elective deferrals. If the plan participant will be age 50 or older by the end of the year, he or she may also be able to make additional catch-up

contributions. These additional contributions cannot be made with after-tax employee contributions. A person is eligible to make catch-up contributions if:

- He or she will have reached age 50 by the end of the year, and
- The maximum amount of elective deferrals that can be made to the 403{b) account have been made for the plan year.

The maximum amount of catch-up contributions is the lesser of

- $6,000 for 2015 and 2016, or
- The includible compensation minus any other elective deferrals for the year.

Catch-up contributions do not affect the MAC. Therefore, the maximum amount that an individual is allowed to have contributed to the 403(b) account is the MAC plus allowable catch-up contribution.

Figuring catch-up contributions. When figuring allowable catch-up contributions, one should combine all catch-up contributions made by the employer on the employee's behalf to the following plans.

- Qualified retirement plans. (To determine if a plan is a qualified plan the plan administrator should be consulted.)
- 403(b) plans.
- Simplified employee pension (SEP) plans.
- SIMPLE plans.

The total amount of the catch-up contributions on the employee's behalf to all plans maintained by the employer cannot be more than the annual limit. For 2015, the limit is $6,000 and this is also the limit for 2016. Worksheet C (displayed later in this chapter), can be used to figure the limit on catch-up contributions.

Excess Contributions

If an individual's actual contributions are greater than his or her MAC, there is an excess contribution. Excess contributions can result in income tax, additional taxes, and penalties. The effect of excess contributions depends on the type of excess contribution. This section discusses excess contributions to a 403(b) account.

Preventing Excess Contributions

To prevent excess contributions, a person should figure their MAC at the beginning of each year using a reasonable estimate of compensation. If, at any time during the year, the person's employment status or compensation changes, he or she should refigure the MAC using a revised estimate of compensation.

How To Know If There Are Excess Contributions

At the end of the year or the beginning of the next year, the taxpayer should refigure his or her MAC based on actual compensation and actual contributions made to his or her account. If the actual contributions to the account are greater than the MAC, there are excess contributions.

What Happens If There Are Excess Contributions? Certain excess contributions in a 403(b) account can be corrected. The effect of an excess 403(b) contribution will depend on the type of excess contribution.

Types of excess contributions. If, after checking actual contributions, it is determined that a plan participant has an excess, the first thing is to identify the type of excess

contribution. Excess contributions to a 403(b) account are categorized as either an:

- Excess annual addition, or
- Excess elective deferral.

Excess Annual Addition

An excess annual addition is a contribution that is more than the limit on annual additions. To determine the limit on annual additions refer to the *Limit on Annual* Additions section (or the *Ministers and Church Employees* section). In the year that contributions are more than the limit on annual additions, the excess amount will be included in the plan participant's income. Amounts in excess of the limit on annual additions that are due to elective deferrals may be distributed if the excess contributions were made for anyone of several reasons, including:

- A reasonable error in determining the amount of elective deferrals that could be made under the limit on annual additions, or
- A reasonable error in estimating compensation.

Excise Tax

If the 403(b) account invests in mutual funds, and the plan participant exceeds his or her limit on annual additions, the taxpayer may be subject to a 6% excise tax on the excess contribution. The excise tax does not apply to funds in an annuity account or to excess deferrals. The excise tax must be paid each year in which there are excess contributions in the account. Excess contributions can be corrected by contributing less than the applicable limit in later years or by making permissible distributions. The excise tax cannot be deducted.

Permissible distributions. A permissible distribution is a distribution that can be made when one of the following events occurs.

- reach age 59½.
- have a severance from employment.
- death occurs
- upon becoming disabled.
- In the case of salary reduction contributions, the plan participant encounters financial hardship.

Reporting requirement. The taxpayer must file Form 5330 if there has been an excess contribution to a custodial account and that excess has not been corrected.

Excess Elective Deferral

An excess elective deferral is the amount that is more than the limit on elective deferrals. Refer to the section 'Limit on Elective Deferrals' to determine the limit. An employer's 403(b) plan may contain language permitting it to distribute excess deferrals. If so, it may require that, in order to get a distribution of excess deferrals, the employee either notifies the plan of the amount of excess deferrals or designates a distribution as an excess deferral. The plan may require that the notification or designation be in writing and may require that the plan participant certify or otherwise establish that the designated amount is an excess deferral. A plan is not required to permit distribution of excess deferrals.

Correction of excess deferrals during year. If there are excess deferrals for a year, a corrective distribution may be made only if both of the following conditions are satisfied.

- The employee or employer designates the distribution as an excess deferral to the

extent that there are excess deferrals for the year.
- The correcting distribution is made after the date on which the excess deferral was made.

Correction of excess deferrals after the year. If there are excess deferrals for a year, an individual may receive a corrective distribution of the excess deferral no later than April 15 of the following year. The plan can distribute the excess deferral (and any income allocable to the excess) no later than April 15 of the year following the year the excess deferral was made.
Tax treatment of excess deferrals. If the excess deferral is distributed no later than April 15, it is included in income in the year contributed and the earnings on the excess deferral will be taxed in the year distributed.

***Example* 1**. William's MAC for 20x1 was $10,500. All of William's contributions were made through salary reductions. He contributed $11,500 in 20x1, an excess deferral of $1,000. He notified his plan administrator and his employer of the excess contribution on March 15, 20x2, and the excess deferral was distributed on April 12, 20x2. Because the excess deferral was distributed before April 15, 20x2, the excess deferral will be included in his income for 20x1, and any earnings on the excess is included in his income in the year they are distributed. If one does not receive a distribution of excess elective deferrals by April 15 of the year following the year it is contributed, it will be included in the earned income in the year contributed and in the year distributed.

***Example* 2**. Assume that, in *Example* 1, a distribution of the excess deferral was not made to William by April 15, 20x1. Because the distribution was not made timely, the excess deferral will be taxed in 20x0 (the year contributed) and again in the year the excess deferral is distributed. The earnings on the distribution will be taxed in the year they are distributed.

Distributions and Rollovers

Distributions

Generally, a distribution cannot be made from a 403(b) account until the employee:
- Reaches age 59½,
- Has a severance from employment,
- Dies,
- Becomes disabled, or
- In the case of salary reduction contributions, encounters financial hardship.

In most cases, the payments received by an individual or that are made available to someone under a 403(b) account are taxable in full as ordinary income. In general, the same tax rules apply to distributions from 403(b) plans that apply to distributions from other retirement plans. These rules are explained in the *Pension and Annuity Income* chapters. Those sections also discuss the additional tax on early distributions from retirement plans.

Minimum Required Distributions

A person must receive all, or at least a certain minimum, of the interest accruing in the 403(b) plan by April 1 of the calendar year following the later of the calendar year in

which the plan participant becomes age 70½ or the calendar year in which a person retires. A check can be made with the employer, plan administrator, or provider: to find out whether this rule also applies to pre-1987 accruals. If not, a minimum amount of these accruals must begin to be distributed by the later of the end of the calendar year in which an individual reaches age 75 or April 1 of the calendar year following retirement, whichever is later. For each year thereafter, the minimum distribution must be made by the last day of the year. If a person does not receive the required minimum distribution, he or she is subject to a nondeductible 50% excise tax on the difference between the required minimum distribution and the amount actually distributed.
For more information on minimum distribution requirements and the additional tax that applies if too little is distributed each year, see *Pension and Annuity Income* chapters.

No Special 10-Year Tax Option

A distribution from a 403(b) plan does not qualify as a lump-sum distribution. This means the taxpayer cannot use the special 10-year tax option to calculate the taxable portion of a 403(b) distribution.

Transfer of Interest in 403(b) Contract

If someone transfers all or part of their interest from a 403(b) account to another 403(b) account, the transfer is tax free. However, this treatment applies only if the transferred interest is subject to the same or stricter distribution restrictions. This rule applies regardless of whether someone is a current employee, a former employee, or a beneficiary of a former employee. Transfers that do not satisfy this rule are plan distributions and are generally taxable as ordinary income.
Tax-free transfers for certain cash distributions. A tax-free transfer may also apply to a cash distribution of a 403(b) account from an insurance company that is subject to a rehabilitation, conservatorship, insolvency, or similar state proceeding. To receive tax-free treatment, all of the following must be done.

- Withdraw all the cash to which the plan participant is entitled in full settlement of his or her contract rights or, if less, the maximum permitted by the state.
- Reinvest the cash distribution in a single policy or contract issued by another insurance company or in a single custodial account subject to the same or stricter distribution restrictions as the original contract not later than 60 days after receipt of the cash distribution.
- Assign all future distribution rights to the new contract or account for investment in that contract or account if the amount received is less than that to which one is entitled because of state restrictions.

In addition to the preceding requirements, a person must provide the new insurer with a written statement containing all of the following information:

- The gross amount of cash distributed under the old contract.
- The amount of cash reinvested in the new contract.
- The investment in the old contract on the date of receipt of the first cash distribution.

Also, the taxpayer must attach the following items to the timely-filed income tax return in the year of receipt of the first distribution of cash.

1) A copy of the statement given the new insurer.
2) A statement that includes:
    a) The words *ELECTION UNDER REV. PROC.* 92-44,
    b) The name of the company that issued the new contract, and
    c) The new policy number.

Direct trustee-to-trustee transfer. If a person makes a direct trustee-to-trustee transfer, from a governmental 403(b) account to a defined benefit governmental plan; it may not be includible in gross income. The transfer amount is not includible in gross income if it is made to:

- Purchase permissive service credits, or
- Repay contributions and earnings that were previously refunded under a forfeiture of service credit under the plan, or under another plan maintained by a state or local government employer within the same state.

Permissive service credit. Permissive service credit means credit for a period of service recognized by an individual's defined benefit governmental plan, only if he or she voluntarily contributes to a 403(b) plan an amount that does not exceed the amount necessary to fund the benefit attributable to the period of service and that is in addition to the regular employee contribution, if any, under the plan.

Tax-Free Rollovers

Anyone can generally roll over tax-free all or any part of a distribution from a 403(b) plan to a traditional IRA or an eligible retirement plan. The most that can be rolled over is the amount that, except for the rollover, would be taxable. The rollover must be completed by the 60th day following the day on which the distribution is received. For information on eligible retirement plans, see the *Pension and Annuity Income* chapters.

Hardship exception* to *rollover rules. The IRS may waive the 60-day rollover period if the failure to waive such requirement would be against equity or good conscience, including cases of casualty, disaster, or other events beyond the reasonable control of the individual.

Rollovers to and from 403(b) plans. A person can roll over, tax free, all or any part of a distribution from an eligible retirement plan to a 403(b) plan. Additionally, one can roll over, tax free, all or any part of a distribution from a 403(b) plan to an eligible retirement plan. If a distribution includes both pre-tax contributions and after-tax contributions, the portion of the distribution that is rolled over is treated as consisting first of pre-tax amounts (contributions and earnings that would be includible in income if no rollover occurred). This means that if one were to roll over an amount that is at least as much as the pre-tax portion of the distribution, he or she does not have to include any of the distribution in income. For more information on rollovers and eligible retirement plans, see the *Pension and Annuity Income* chapters.

If a plan participant rolls over money or other property from a 403(b) plan to an eligible retirement plan, see the *Pension and Annuity Income* chapters for information about possible effects on later distributions from the eligible retirement plan.

Eligible retirement plans. The following are considered eligible retirement plans.

- Individual retirement arrangements.
- Qualified retirement plans. (To determine if the plan is a qualified plan, the plan administrator should be consulted.)
- 403(b) plans.
- Government eligible 457 plans.

Nonqualifying distributions. These cannot be rolled over tax free:

- Minimum distributions (generally required to begin at age 70½),

- Substantially equal payments over life or life expectancy,
- Substantially equal payments over the joint lives or life expectancies of the beneficiary and the plan participant,
- Substantially equal payments for a period of 10 years or more,
- Hardship distributions, or
- Corrective distributions of excess contributions or excess deferrals, and any income allocable to the excess, or excess annual additions and any allocable gains.

Direct rollovers of 403(b) plan distributions. The plan participant has the option of having the 403(b) plan make the rollover directly to the IRA or new plan. Before receipt of a distribution, the plan will provide information on this. It is generally to someone's advantage to choose this option because the plan will not withhold tax on the distribution if it is chosen.

Withholding. If someone were to receive a distribution that qualifies to be rolled over, the payer must withhold 20% of it for taxes (even if the recipient plans to roll the distribution over). The 'no withholding' option is unavailable unless the direct rollover option is elected.

Distribution received by plan participant. If someone receives a distribution that qualifies to be rolled over, he or she can roll over all or any part of the distribution. Generally, they will receive only 80% of the distribution because 20% must be withheld. If one were to roll over only the 80% received, the taxpayer must pay tax on the 20% not rolled over. The plan participant can replace the 20% that was withheld with other money within the 60-day period to make a 100% rollover.

Voluntary deductible contributions. For tax years 1982 through 1986, employees could make deductible contributions to a 403(b) plan under the individual retirement arrangement (IRA) rules instead of deducting contributions to a traditional IRA. If voluntary deductible contributions to a 403(b) plan were made under these traditional IRA rules, the distribution of all or part of the accumulated deductible contributions may be rolled over assuming it otherwise qualifies as a distribution which can be rolled over. Accumulated deductible contributions are the deductible contributions plus income and gain allocable to the contributions, minus expenses and losses allocable to the contributions, and minus distributions from the contributions, income, or gain.

Excess employer contributions. The portion of a distribution from a 403(b) plan transferred to a traditional IRA that was previously included in income as excess employer contributions (discussed earlier) is not an eligible rollover distribution. Its transfer does not affect the rollover treatment of the eligible portion of the transferred amounts. However, the ineligible portion is subject to the traditional IRA contribution limits and may create an excess IRA contribution subject to a 6% excise tax.

Qualified Domestic Relations Order. An individual may be able to roll over tax-free all or any part of an eligible rollover distribution from a 403(b) plan that is received under a qualified domestic relations order (QDRO). If a person receives the interest in the 403(b) plan as an employee's spouse or former spouse under a QDRO, all of the rollover rules apply as if he or she were the employee. The interest in the plan can be rolled over to a traditional IRA or another 403(b) plan. For more information on the treatment of an interest received under a QDRO, see the *Pension and Annuity Income* chapters.

Spouses of deceased employees. Survivors of a deceased employee can roll over the qualifying distribution attributable to the employee. The survivor can make the rollover to any eligible retirement plan. However, it cannot be rolled over to a Roth IRA. If after rolling over money and other property from a 403(b) plan to an eligible retirement plan, the plan participant were to take a distribution from that plan, he or she would not be eligible to receive the capital gain treatment or the special averaging treatment for the distribution.

Application of one rollover per year limitation
Beginning in 2015, you can make only one rollover from an IRA to another (or the same) IRA in any 1-year period regardless of the number of IRAs you own. However, you can continue to make unlimited trustee-to-trustee transfers between IRAs because it is not considered a rollover. Furthermore, you can also make as many rollovers from a traditional IRA to a Roth IRA (also known as conversions).

Frozen deposits. The 50-day period usually allowed for completing a rollover is extended for any time that the amount distributed is a frozen deposit in a financial institution. The 50-day period cannot end earlier than 10 days after the deposit ceases to be a frozen deposit. A frozen deposit is any deposit that on any day during the 50-day period cannot be withdrawn because:

1) The financial institution is bankrupt or insolvent, or
2) The state where the institution is located has placed limits on withdrawals because one or more banks in the state are (or are about to be) bankrupt or insolvent.

Gift Tax

If, by choosing or not choosing an election, or option, there is cause to be provided an annuity for the beneficiary at or after the death of the plan participant, he or she may have made a taxable gift equal to the value of the annuity.
Joint and survivor annuity. If the gift is an interest in a joint and survivor annuity where only the plan participant and spouse have the right to receive payments, the gift will generally be treated as qualifying for the unlimited marital deduction.

Worksheets

A previous section introduced the term **maximum amount contributable** (MAC). Generally, the MAC is the lesser of the:

- Limit on annual additions (see the section by this name), or
- Limit on elective deferrals (see the section by this name).

The worksheets in this chapter can help the taxpayer figure the cost of incidental life insurance, includible compensation, limit on annual additions, and limit on elective deferrals, limit on catch-up contributions, and the maximum amount contributable. After completing the worksheets, the individual should maintain them with the 403(b) records for that year. They should not be attached to the tax return. At the end of the year or the beginning of the next year, the estimated compensation figures should be compared with the actual figures. If compensation is the same as, or more than, the projected amounts and the calculations are correct, then these worksheets should be filed with other tax records for the year. If compensation was lower than the individual's originally

estimated figures, he or she will need to check the amount contributed during the year to determine if contributions are more than the MAC.

When Should MAC be Figured

At the beginning of each year, the plan participant should figure the MAC using a conservative estimate of compensation. Should income change during the year, the MAC should be refigured based on a revised conservative estimate. By doing this, the taxpayer will be able to determine if contributions to his or her 403(b) account should be increased or decreased for the year.

Figuring MAC for the Current Year

If the MAC is being figured for the current year, one should use a conservative estimate of their compensation.

Checking the Previous Year's Contributions

At the beginning of the following year, an individual should refigure their MAC based on actual earned income. At the end of the current year or the beginning of the next year, a person should check plan contributions to be sure he or she did not exceed the MAC. This means refiguring the limit based on actual compensation figures of the plan participant for the year. This will allow a person to determine if the amount contributed is more than the allowable amounts, and possibly avoid additional taxes.

Available Worksheets

The following worksheets have been provided to help figure the MAC.

- Worksheet A. Cost of Incidental life Insurance.
- Worksheet B. Includible Compensation for Most Recent Year of Service.
- Worksheet C. limit on Catch-Up Contributions.
- Worksheet 1. Maximum Amount Contributable (MAC).

Worksheet A. Cost of Incidental Life Insurance

Note: *Use this worksheet to figure the cost of incidental life insurance included in an annuity contract. This amount will be used to figure includible compensation for the most recent year of service.*

1. Enter the value of the contract (amount payable upon death)	1. _____
2. Enter the cash value in the contract at the end of the year	2. _____
3. Subtract line 2 from line 1. This is the value of the current life insurance protection	3. _____
4. Enter plan participant's age on birthday nearest the beginning of the policy year.	4. _____
5. Enter the 1-year term premium for $1,000 of life insurance based on age. (From Figure 4-1)	5. _____
6. Divide line 3 by $1,000	6. _____

7. Multiply line 6 by line 5. This is the cost of the incidental life insurance	7. _____

Worksheet B. Includible Compensation for Most Recent Year of Service*

Note: *Use this worksheet to figure includible compensation for the most recent year of service.*

1. Enter includible wages from the employer maintaining the 403(b) account for the plan participant's most recent year of service.	1. _____
2. Enter elective deferrals for the most recent year of service	2. _____
3. Enter amounts contributed or deferred by the employer under a cafeteria plan for the most recent year of service	3. _____
4. Enter amounts contributed or deferred by the employer to the plan participant's section 457 account (a nonqualified plan of a state or local government or of a tax-exempt organization) for his or her most recent year of service.	4. _____
5. Enter the value of qualified transportation fringe benefits received from the employer	5. _____
. 6. Enter the foreign earned income exclusion for the most recent year of service	6. _____
7. Add lines 1, 2, 3, 4, 5, and 6	7. _____
. 8. Enter the cost of incidental life insurance that is part of the annuity contract for the most recent year of service	8. _____
9. Enter compensation that was both: • Earned during the most recent year of service, and • Earned while the employer was not qualified to maintain a 403(b) plan.	9. _____
10. Add lines 8 and 9	10. _____
11. Subtract line 10 from line 7. This is the includible compensation for the most recent year of service	11. _____
Use *estimated amounts if figuring includible compensation before the end of the year.*	

Worksheet C. Limit on Catch-Up Contributions

Note: *If the participant will be age* 50 *or older by the end of the year, this worksheet should be used to figure the limit on catch-up contributions.*

1. Maximum catch-up contributions • For 20x5, enter $6,000 • For 20x6, *enter* $6,000	1. _____
2. Enter includible compensation for the most recent year of service	2. _____
3. Enter elective deferrals	3. _____
4. Subtract line 3 from line 2	4. _____
5. Enter the lesser of line 1 or line 4 This is the limit on catch-up contributions.	5. _____

Worksheet 1. Maximum Amount Contributable (MAC) Note. *Use this worksheet to figure the MAC*

Part I. Limit on Annual Additions	
1. Enter includible compensation for the most recent year of service	1. _____
2. M**aximum** (for 2016 $53,000)	2. (2015) _____$53,000
3. Enter the lesser of line 1 or line 2. This is the **limit on annual additions**	3. _____
Caution: If the plan participant had only nonelective contributions, skip Part II and enter the amount from line 3 on line 16.	
Part II. Limit on Elective Deferrals	
4. **Maximum contribution** • For 2016 enter $18.000 • For 2017 enter $18.000.	4. _____
Note. If a plan participant has at least 15 years of service with a qualifying organization, complete lines 5 through 15. If not, enter zero (-0-) on line 14 and go to line 15.	
5. Amount per year of service	5. _____$ 5,000
6. Enter the years of service	6. _____

7. Multiply line 5 by line 6	7. _____
8. Enter the total of all elective deferrals for prior years made by the qualifying organizations	8. _____
9. Subtract line 8 from line 7. If zero or less enter zero (-0-)	9. _____
10. Maximum increase in limit for long service	10. $15,000
11. Enter all prior year increases in the limit for long service	11. _____
12. Subtract line 11 from line 10	12. _____
13**. Maximum additional contributions**	13. $3,000
14. Enter the least of lines 9.12. Or 13. This is the increase in the limit for long service	14. _____
15. Add lines 4 and 14. This is the limit on elective deferrals.	15. _____
Part III. Maximum Amount Contributable	
16. • If there were *only nonelective contributions,* enter the amount from line 3. This is the **MAC**. • If there were *only elective deferrals,* enter the lesser of lines 3 or 15. This is the **MAC**. • If there were *both elective deferrals and nonelective contributions,* enter the amount from line 3. This is the **MAC**. (Use the amount on line 15 to determine if there were excess elective deferrals as explained in the *Excess Contributions* section.).	16. _____

Retirement Savings Contributions Credit

If the employee or the employer makes eligible contributions (defined later) to a retirement plan, the plan participant may be able to take a credit of up to $1,000 (up to $2,000 if filing jointly). This credit could reduce the federal income tax paid dollar for dollar.

Can the credit be claimed? If the employee or the employer make eligible contributions to a retirement plan, he or she can claim the credit if all of the following apply.

1) not under age 18.
2) not a full-time student (explained later).
3) no one else, such as the plan participant's parent(s), claim an exemption for the individual on their tax return.
4) adjusted gross income (defined later) is not more than (for 2015):
    a) $61,000 if filing status is married filing jointly,

b) $45,750 if filing status is head of household (with qualifying person), or
c) $30,500 if filing status is single, married filing separately, or qualifying widow(er) with dependent child.

Full-time student. An individual is a full-time student if, during some part of each of 5 calendar months (not necessarily consecutive) during the calendar year, he or she is either:

- A full-time student at a school that has a regular teaching staff, course of study, and regularly enrolled body of students in attendance, or
- A student taking a full-time, on-farm training course given by either a school that has a regular teaching staff, course of study, and regularly enrolled body of students in attendance, or a state, county, or local government.

A person is a full-time student if he or she is enrolled for the number of hours or courses the school considers to be full time.

Adjusted gross income. This is generally the amount on line 35 of the Form 1040 or line 19 of Form 1040A. However, one must add to that amount any exclusion or deduction claimed for the year for:

- Foreign earned income,
- Foreign housing costs,
- Income for bona fide residents of American Samoa, and
- Income from Puerto Rico.

Eligible contributions. These include

1) Contributions to a traditional or Roth IRA, and
2) Salary reduction contributions (elective deferrals) to:
    a) A 401(k) plan (including a SIMPLE 401 (k),
    b) A section 403(b) annuity,
    c) An eligible deferred compensation plan of a state or local government (a 457 plan),
    d) A SIMPLE IRA plan, or
    e) A salary reduction SEP.

They also include voluntary after-tax employee contributions to a tax-qualified retirement plan or a section 403(b) annuity. For purposes of this credit, an employee contribution will be voluntary as long as it is required as a condition of employment.

Reducing eligible contributions. Eligible contributions are reduced (but not below zero) by the total distributions received during the testing period (defined later) from any IRA, plan, or annuity to which eligible contributions can be made. However, eligible contributions are not to be reduced by the portion of any distribution which is not includible in income because it is a trustee-to-trustee transfer or a rollover distribution. Eligible contributions are reduced by any distribution from a Roth IRA that is not rolled over, even if the distribution is not taxable. Do not reduce eligible contributions by any distribution that is a return of a contribution to an IRA (including a Roth IRA) made during the year for which the credit is claimed for it if:

1) The distribution is made before the due date (including extensions) of the taxpayer's tax return for that year,
2) The individual does not take a deduction for the contribution, and
3) The distribution includes any income attributable to the contribution.

CHAPTER 5 IRA'S, PIA'S AND STRIPS

As per the title, this chapter is sectioned into these three topics and their relation to the subject of annuities.

IRA's

2016 IRA Deduction Limits - Effect of Modified AGI on Deduction if You Are Covered by a Retirement Plan at Work

If you are covered by a retirement plan at work, use this table to determine if your modified AGI affects the amount of your deduction.

If Your Filing Status Is...	And Your Modified AGI Is...	Then You Can Take...
single or **head of household**	$61,000 or less	a full deduction up to the amount of your contribution limit[a]
	more than $61,000 but less than $71,000	a partial deduction.
	$71,000 or more	no deduction.
married filing jointly or **qualifying widow(er)**	$98,000 or less	a full deduction up to the amount of your contribution limit[a]
	more than $98,000 but less than $118,000	a partial deduction.
	$118,000 or more	no deduction.
married filing separately	less than $10,000	a partial deduction.
	$10,000 or more	no deduction.
[a]If you file separately and did not live with your spouse at any time during the year, your IRA deduction is determined under the "Single" filing status.		

2016 Deduction Limit - Effect of Modified AGI on Deduction if You Are NOT Covered by a Retirement Plan at Work

If you are not covered by a retirement plan at work, use this table to determine if your modified AGI affects the amount of your deduction.

If Your Filing Status Is...	And Your Modified AGI Is...	Then You Can Take...
single, **head of household**, **or qualifying widow(er)**	any amount	a full deduction up to the amount of your contribution limit[a]
married filing jointly or **separately** with a spouse who **is not** covered by a	any amount	a full deduction up to the amount of your contribution

plan at work		limit[a]
married filing jointly with a spouse who **is** covered by a plan at work	$183,000 or less	a full deduction up to the amount of your contribution limit[a]
	more than $183,000 but less than $193,000	a partial deduction.
	$193,000 or more	no deduction.
married filing separately with a spouse who **is** covered by a plan at work	less than $10,000	a partial deduction.
	$10,000 or more	no deduction.
[a]If you file separately and did not live with your spouse at any time during the year, your IRA deduction is determined under the "Single" filing status.		

Kinds of rollovers from a traditional IRA. An individual can roll over, tax free, a distribution from a traditional IRA into a qualified plan, including a deferred compensation plan of a state or local government (section 457 plan), and a tax-sheltered annuity (section 403(b) plan). The part of the distribution that can be rolled over is the part that would otherwise be taxable (includible in income). Qualified plans may, but are not required to, accept such rollovers.

Deemed IRAs- A qualified employer plan (retirement plan) can maintain a separate account or annuity under the plan (a deemed IRA) to receive voluntary employee contributions. If the separate account or annuity otherwise meets the requirements of an IRA, it will only be subject to IRA rules. An employee's account can be treated as a traditional IRA or a Roth IRA.
For this purpose, a "qualified employer plan" includes:

- A qualified pension, profit-sharing, or stock bonus plan (section 401(a) plan),
- A qualified employee annuity plan (section 403(a) plan),
- A tax-sheltered annuity plan (section 403(b) plan), and
- A deferred compensation plan (section 457(b) plan) maintained by a state, a political subdivision of a state, or an agency or instrumentality of a state or political subdivision of a state.

Kinds of rollovers from a traditional IRA

A person can rollover, tax free, a distribution from the traditional IRA into a qualified plan, including a deferred compensation plan of a state or local government (section 457 plan), and a tax-sheltered annuity (section 493(b) plan). The part of the distribution that can be rolled over is the part that would otherwise be taxable (includible in income). Qualified plans may, but are not required to, accept such rollovers

Annuity or endowment contracts- If an individual invests in an annuity or endowment contract under an individual retirement annuity, no more than $3,000 ($3,500 if 50 or older) can be contributed toward its cost for the tax year, including the cost of life insurance coverage. If more than this amount is contributed, the annuity or endowment contract is disqualified.

Defined benefit plan- a defined benefit plan is any plan that is not a defined contribution plan. In a defined benefit plan, the level of benefits to be provided to each participant is spelled out in the plan. The plan administrator figures the amount needed to provide those benefits and those amounts are contributed to the plan. Defined benefit plans include pension plans and annuity plans.

What if an IRA is inherited?

If someone inherits a traditional IRA, it is subject to special rules.
Inherited from spouse- If a traditional IRA is inherited from a spouse, generally the following choices are available to a person-

1) Treat it as their own by designating him/her self as the account owner
2) Treat it as their own by rolling it over into a traditional IRA, or to the extent it is taxable, into a
    a) Qualified employer plan,
    b) Qualified employee annuity (section 403(a) plan)
    c) Tax-sheltered annuity (section 403(b) plan)
    d) Deferred compensation plan or a state or local government (section 457 plan), or
3) Treat himself as the beneficiary rather than treating the IRA as his or her own.

A person will be considered to have chosen to treat it as their own if

- Contributions (including rollover contributions) are made to the inherited IRA, or
- The individual does not take the required minimum distribution for a year as a beneficiary of the IRA.

The individual will only be considered to have chosen to treat it as his or her own IRA if;

- That person is the sole beneficiary of the IRA
- The individual has an unlimited right to withdraw amounts from it, and
- The distribution of the required minimum amount for the account for the calendar year of the decedent's death has been made.

If a person still receives a distribution from his or her deceased spouse's IRA, the individual can roll that distribution over into their own IRA within the 60-day time limit, as long as the distribution is not a required distribution, even if that person is the sole beneficiary of the deceased spouse's IRA.

Rollovers

Generally, a rollover is a tax-free distribution to the plan participant of cash or other assets from one retirement plan that is contributed to another retirement plan. The contribution to the second retirement plan is called a 'rollover contribution.' Note that the amount rolled over tax-free is generally taxable when the new plan distributes that amount to the taxpayer or the taxpayer's beneficiary.
Kinds of rollovers to a traditional IRA-a person can rollover amounts from the following plans into a traditional IRA;

1) A traditional IRA
2) An employer's qualified retirement plan for its employees
3) A deferred compensation plan of a state or local government (section 457 plan)
4) A tax-sheltered annuity (section 403 plan).

Treatment of rollovers- One cannot deduct a rollover contribution, but the rollover

distribution must be reported on the person's tax return.

Rollover From Employer's Plan Into an IRA

A person can roll over into a traditional IRA all or part of an **eligible rollover distribution** received from an (or a deceased spouse's)-

1) Employer's qualified pension, profit-sharing or stock bonus plan
2) Annuity plan
3) Tax-sheltered annuity plan (section 403(b) plan), or
4) Governmental deferred compensation plan (section 457 plan).

A qualified plan is one that meets the requirements of the Internal Revenue Code.

Eligible retirement plans- The following are considered eligible retirement plans-

- Individual retirement arrangements (IRA's)
- Qualified trusts
- Qualified employee annuity plans under section 403(a)
- Deferred compensation plans of a state or local government(section 457 plan)
- Tax-sheltered annuities (section 403(b) annuities)

Distributions received by a surviving spouse- If an individual receives an eligible rollover distribution, from his or her deceased spouse's employer's qualified plan or a tax-sheltered annuity, the individual can roll part or all of it over into a traditional IRA. The recipient can also roll over all or any part of a distribution of deductible employee contributions (DEC's).

Distribution from a tax-sheltered annuity- If an individual receives an eligible rollover distribution from a tax-sheltered annuity plan, he or she can roll it over into a traditional IRA.

Age 59½ Rule

Generally, if someone is under age 59½ he or she must pay a 10% additional tax on the distribution of any assets (money or other property) from a traditional IRA. Distributions before age 59½ are called early distributions. The 10% additional tax applies to the part of the distribution that has been included in the individual's gross income. It is in addition to any regular income tax on that amount.

A number of exceptions to this rule are shown below. Note that the taxpayer may have to pay a 25%, rather than a 10% additional tax if he or she receives distributions from a SIMPLE IRA before age 59½.

After age 59½ and before age 70½- After a person reaches age 59½, he or she can receive distributions from the traditional IRA without having to pay the 10% additional tax. Even though someone can receive distributions after reaching age 59½, distributions are not required until the age of 70½ is attained.

Exceptions

There are several exceptions to the age 59½ rule. Even if a person receives a distribution before reaching age 59½, the 10% additional tax may not be payable if one of the following situations applies;

- The taxpayer has unreimbursed medical expenses that are more than 7.5% of his or

her adjusted gross income.

- The distributions are not more than the cost of the medical insurance
- A person is disabled
- An individual is the beneficiary of a deceased IRA owner.
- A person is receiving distributions in the form of an annuity
- The distributions are not more that a person's qualified higher education expenses.
- The distributions are used to buy, build, or rebuild a first home
- The distribution is due to an IRS levy of the qualified plan

For an annuity- A person can receive distributions from the traditional IRA that are part of a series of substantially equal payments over the life (or life expectancy), or over the lives (or the joint life expectancies) of the annuitant and beneficiary, without having to pay the 10% additional tax, even if one were to receive such distributions before reaching the age of 59½. A person must use an IRS-approved distribution method and also must take at least one distribution annually for this exception to apply. The 'required minimum distribution method,' when used for this purpose, results in the exact amount required to be distributed, not the minimum amount.

There are two other IRS-approved distribution methods that can be used. They are generally referred to as the 'fixed amortization method' and the 'fixed annuitization method.' These two methods are not discussed in this book because they are very complex and require professional assistance. *Revenue Ruling 2002-62* in *Internal Revenue Bulletin 2002-42* gives more information on these two methods. This Revenue Ruling can be found at the IRS website.

The payments under this exception must continue for at least 5 years, or until the taxpayer reaches age 59½, whichever is the longer period. This 5-year rule does not apply if a change from an approved distribution method is made because of the death or disability of the IRA owner. If the payments under this exception are changed before the end of the above required periods, for any reason other than the death or disability of the IRA owner, he or she will be subject to the 10% additional tax. However, if he or she began receiving a series of substantially equal periodic payments, the annuitant can change to the required minimum distribution method at any time without incurring the additional tax. Also, if an individual began receiving distributions using either the fixed amortization method or the fixed annuitization method, he or she can make a one-time switch to the required minimum distribution method without incurring the additional tax. For example, if someone were to receive a lump-sum distribution of the balance in his or her traditional IRA before the end of the required period for annuity distributions and the individual did not receive it because they were disabled, the person would be subject to the 10% additional tax. The tax would apply to the lump-sum distribution and all previous distributions made under the exception rule.

Minimum Distributions

Minimum distributions from a traditional IRA may be figured differently depending on whether they are paid out of an individual retirement account or an individual retirement annuity. If the traditional IRA is an individual retirement annuity, if someone receives distributions from the traditional IRA as an annuity purchased from an insurance company, special rules apply to figuring the required minimum distribution. For more information on rules for annuities, the taxpayer needs §1.401(a)(9)-6T of the

regulations.

Distribution of an annuity contract from an IRA account- The plan participant can tell the trustee or custodian of the traditional IRA account to use the amount in the account to buy an annuity contract. An individual is not taxed when he or she receives the annuity contract. Tax is due once payments start being received under that annuity contract.

Tax treatment- If only deductible contributions were made to a traditional IRA since it was set up (this includes all of a person's traditional IRA's, if they have more than one), the annuity payments are fully taxable. If any of the traditional IRA's includes both deductible and non-deductible contributions, the annuity payments are taxed on an apportioned basis.

Estate tax- Generally, the value of an annuity or other payment receivable by any beneficiary of a decedent's traditional IRA that represents the part of the purchase price contributed by the decedent (or by his or her former employer(s), must be included in the decedent's gross estate.

Prohibited Transactions

A prohibited transaction is any improper use of the traditional IRA account or annuity by the participant, his or her beneficiary, or any disqualified person. Disqualified persons include an individual's fiduciary or family members (spouse, ancestor, lineal descendant, and any spouse of a lineal descendant). The following are examples of prohibited transactions with a traditional IRA-

- Borrowing money from it
- Selling property to it
- Receiving unreasonable compensation for managing it
- Using it as security for a loan.
- Buying property for personal use (present or future) with IRA funds

Borrowing on an Annuity contract- If a person borrows money against the traditional IRA annuity contract, he or she must include in gross income the fair market value of the annuity contract as of the first day of the tax year. The 10% additional tax may have to be paid on early distributions, as previously discussed.

Affected investment defined- Affected investment means an annuity contract or a guaranteed investment contract (with an insurance company) for which payments under the terms of the contract have been reduced or suspended because of state insurer delinquency proceeding against the contracting insurance company.

Roth IRA's

The Roth IRA provides no deduction for contributions, but instead provides a benefit that isn't available for any other form of retirement savings: if an individual meets certain requirements, *all earnings are tax free* when withdrawn. Other benefits include avoiding the early distribution penalty on certain withdrawals, and avoiding the need to take minimum distributions after age 70½.

Eligibility

A person is eligible to make a regular contribution to a Roth IRA even if participating in a

retirement plan maintained by his or her employer. These contributions can be as much as $5,500 ($6,500 if 50 or older by the end of the year). There are two requirements. First, the participant or spouse must have compensation or alimony income equal to the amount contributed. Second, the modified adjusted gross income can't exceed certain limits. For 2015, the limits are $116,000 for single individuals and $183,000 for married individuals filing joint returns. The amount which can be contributed is reduced gradually and then completely eliminated when modified adjusted gross income exceeds $131,000 (single) or $193,000 (married filing jointly).

Plus and Minus

The chief advantage of the Roth IRA is obvious: the ability to have investment earnings completely escape taxation. The advantage comes at a price, though: there is no deduction when you contribute to the Roth IRA. So which is more important? It depends on the individual situation, and also on what assumptions are made about the future. How long before money is withdrawn from the IRA? What will the tax brackets be? What earnings can be anticipated in the interim?

There are significant advantages to the Roth IRA. One is that the minimum distribution rules don't apply. If someone is able to live on other resources after retirement, he or she does not have to draw on the Roth IRA at age 70½. That means earnings continue to grow tax-free. The other advantage is the ability to take certain early distributions without paying the early distribution penalty. In short, the Roth IRA makes it easier to keep the money in, and also easier to take money out.

Distributions

Distributions from Roth IRAs are tax-free until the regular contributions are withdrawn. After that rollover (conversion) contributions, if any, are withdrawn. Special rules apply to withdrawal of rollover contributions. When all contributions (regular and rollover) are withdrawn, any subsequent withdrawals come from earnings. The withdrawals are tax-free if you're over age 59½ and at least five years have expired since you established your Roth IRA. Otherwise (with limited exceptions) they're taxable and potentially subject to the early withdrawal penalty.

Distributions to beneficiaries- Generally, the entire interest in the Roth IRA must be distributed by the end of the fifth calendar year after the year of the owner's death unless the interest is payable to a designated beneficiary over the life or life expectancy of the designated beneficiary.
If paid as an annuity- It must be payable over a period not greater than the designated beneficiary's life expectancy and distributions must begin before the end of the calendar year following the year of death. Distributions from another Roth IRA cannot be substituted for these distributions unless the other Roth IRA was inherited from the same decedent.

SIMPLE

A SIMPLE plan is a tax-favored retirement plan that certain small employers (including self-employed individuals) can set up for the benefit of their employees. A SIMPLE plan is a written agreement (salary reduction agreement between employee and employer

including a self-employed individual), to choose to:

- Reduce employee compensation by a certain percentage each pay period, and
- Have the employer contribute the salary reductions to a SIMPLE IRA on behalf of the employee. These contributions are called salary reduction contributions.

All contributions under a SIMPLE IRA plan must be made to SIMPLE IRA's, not to any other type of IRA. The SIMPLE IRA can be an individual retirement account or an individual retirement annuity, described above. Contributions are made on behalf of **eligible employees** or **nonelective contributions.**

Rollovers from SIMPLE IRA's- A person may be able to roll over, tax free, a distribution form his or her SIMPLE IRA to a qualified plan, a tax-sheltered annuity (section 403(b) plan), or deferred compensation plan of a state or local government (section 457 plan).

Treasury STRIPS

This information comes from the U.S. Treasury Department website-

The Treasury STRIPS program was introduced in January 1985. The term STRIPS is an acronym for Separate Trading of Registered Interest and Principal of Securities. The STRIPS program lets investors hold and trade the individual interest and principal components of eligible Treasury notes and bonds as separate securities.

What is a stripped security?

When a Treasury fixed-principal or inflation-indexed note or bond is stripped, each interest payment and the principal payment becomes a separate zero-coupon security. Each component has its own identifying number and can be held or traded separately. For example, a Treasury note with 10 years remaining to maturity consists of a single principal payment at maturity and 20 interest payments, one every six months for 10 years. When this note is converted to STRIPS form, each of the 20 interest payments and the principal payment becomes a separate security. STRIPS are also called zero-coupon securities because the only time an investor receives a payment during the life of a STRIP is when it matures.

How do I buy STRIPS?

The Treasury does not issue or sell STRIPS directly to investors. STRIPS can be purchased and held only through financial institutions and government securities brokers and dealers.

Why do investors hold STRIPS?

STRIPS are popular with investors who want to receive a known payment at a specific future date. For example, some State lotteries invest the present value of large lottery prizes in STRIPS to be sure that funds are available when needed to meet annual payment obligations that result from the prizes. Pension funds invest in STRIPS to match the payment flows of their assets with those of their liabilities to make benefit payments. STRIPS are also popular investments for individual retirement accounts, 401(k)-type savings plans, and other income tax-advantaged accounts that permit earnings to accumulate without incurring immediate income tax consequences. See the Federal income tax treatment of STRIPS section, later. The Department of the Treasury

does not provide investment advice. Your investment advisor, financial institution, government securities broker or dealer, accountant, and/or tax advisor can discuss STRIPS in the context of your investment needs.

Which Treasury securities are eligible to be stripped?

All Treasury notes and bonds are strippable.

How is a Treasury security stripped?

A financial institution, government securities broker, or government securities dealer can convert an eligible Treasury security into interest and principal components through the commercial book-entry system. Generally, an eligible security can be stripped at any time from its issue date until its call or maturity date.

Securities are assigned a standard identification code known as a CUSIP number. CUSIP is the acronym for Committee on Uniform Security Identification Procedures. Just as a fully constituted security has it a unique CUSIP number, each STRIPS component has a unique CUSIP number. All interest STRIPS that are payable on the same day, even when stripped from different securities, have the same generic CUSIP number. However, the principal STRIPS from each note or bond have a unique CUSIP number. For example, if several fixed-principal notes and bonds that pay interest on May 15 and November 15 are stripped, the interest STRIPS that are payable on the same day (for example, May 15, 2015) have the same CUSIP number. However, the principal STRIPS of each fixed-principal note and bond have a unique CUSIP number, and principal STRIPS with different CUSIP numbers that pay on the same day are not interchangeable (or "fungible"). In the case of inflation-indexed notes and bonds, the semiannual interest STRIPS that are payable on the same day (for example April 15, 2015) have the same CUSIP number. The principal STRIPS also have a unique CUSIP number. The CUSIP numbers for STRIPS from inflation-indexed securities are different from those for STRIPS from fixed-principal securities. The Federal rules pertaining to STRIPS are available at the Treasury Department website (31 C.F.R. 356.31). Also, Appendix B to 31 C.F.R., Part 356, gives an example of the adjustment that must be made to the value of a stripped interest component of an inflation-indexed security to make it interchangeable with the interest components of other inflation-indexed securities with the same payment date.

What are minimum par amounts for stripping?

Fixed-principal securities: The minimum face amount needed to strip a fixed-principal note or bond is $1,000 and any par amount to be stripped above $1,000 must be in a multiple of $1,000.
Inflation-indexed securities: The minimum face amount needed to strip an inflation-indexed note or bond is $1,000 and any par amount to be stripped above $1,000 must be in a multiple of $1,000.

Are STRIPS safe investments?

STRIPS are obligations of the Treasury and are backed by the full faith and credit of the United States. Market prices of STRIPS fluctuate more than the prices of fully constituted securities of the same maturity. The market price of a STRIP reflects the fact that there is only one payment on a specific date in the future. The market price of a fully constituted Treasury note or bond reflects the fact that there is a series of semiannual interest payments and a final payment at maturity. The longer the maturity

of STRIPS, the greater is the potential market price fluctuation. STRIPS sell at a discount because there are no periodic interest payments. An investor's income on a STRIP that is held to maturity is the difference between the purchase price and the amount received at maturity. Long-term STRIPS have lower market prices than short-term STRIPS, because long-term STRIPS accrue interest over a longer period of time. For example, assume that three STRIPS are quoted in the market at a yield of 6.50 percent. The price for STRIPS with 25 years remaining to maturity would be $202.07 per $1,000 face amount; that for STRIPS with 10 years remaining to maturity would be $527.47 per $1,000 face amount, while that for 2-year STRIPS would be $879.91 per $1,000 face amount. The total income from a STRIPS security is fixed at the time of purchase when the security is held to maturity. When STRIPS are sold before maturity, however, the investor could realize a gain or loss because the market price could be more or less than the purchase price plus the amount of interest (and the inflation adjustment to principal in the case of inflation-indexed notes and bonds) that has accrued between the time the security was purchased and the sale date.

Are STRIPS readily available?

There is a large and active market for STRIPS components of fixed-principal securities. Many brokers and dealers make markets in these securities and other market participants include pension funds, financial institutions, investment funds, and individuals. While the liquidity of particular issues may vary from time to time, in general a busy market exists for STRIPS with maturities from a few months to 30 years. A market has not yet developed for stripped components of inflation-indexed securities.

What is the Federal income tax treatment of STRIPS?

Generally, an investor must report as income, for Federal income tax purposes, the interest earned on STRIPS in the year in which it is earned. Inflation adjustments to principal on inflation-indexed securities must also be reported in the year earned. Income must be reported even though it is not received until maturity or the STRIPS are sold. Every investor in STRIPS receives a report each year displaying the amount of STRIPS interest income from the financial institution, government securities broker, or government securities dealer that maintains the account in which the STRIPS are held. This statement is known as IRS Form 1099 - OID, the acronym for original issue discount. The income-reporting requirement has meant that STRIPS are attractive investments for tax-deferred accounts, such as individual retirement accounts and 401(k) plans, and for non-taxable accounts, which include pension funds. The income tax treatment of STRIPS also takes into account market discount and capital gains or losses, if any. Therefore, an investor would be well advised to review possible income tax implications before investing in STRIPS. For further information on the tax treatment of STRIPS and other zero-coupon securities, see Internal Revenue Service Publication 550, "Investment Income and Expenses" on the Internal Revenue Service website at: http://www.irs.gov/forms_pubs/findfiles.html

Can the STRIPS components be reassembled into a whole security?

STRIPS components can be reassembled or "reconstituted" into a fully constituted security in the commercial book-entry system. To reconstitute a security, a financial institution or government securities broker or dealer must obtain the appropriate principal component and all unmatured interest components for the security being reconstituted. The principal and interest components must be in the appropriate minimum or multiple amounts for a security to be reconstituted.

The flexibility to strip and reconstitute securities allows investors to take advantage of various holding and trading strategies under changing financial market conditions that may tend to favor trading and holding STRIPS or fully constituted Treasury securities.

PIA's

Here is a speech by a Treasury Department official that sheds some light on the subject of price-level indexed annuities. It also shows how public policy and the political process (especially during an administration change) affect the market for financial products, and how quickly things can change.

FROM THE OFFICE OF PUBLIC AFFAIRS
December 7, 2000

**"WHY HAVEN'T PRICE-LEVEL INDEXED ANNUITIES
TAKEN THE FINANCIAL WORLD BY STORM?"
TREASURY ASSISTANT SECRETARY FOR ECONOMIC POLICY DAVID WILCOX
REMARKS TO 2000 STANFORD LIFE INSURANCE TAXATION WORKSHOP
WASHINGTON, DC**

I. Introduction

It is a pleasure to be here with you tonight. It is particularly gratifying to have the opportunity to speak to representatives of and experts about an industry that will be at the leading edge in creating solutions to the demographic challenge of the retiring baby-boomers. Back before the dawn of the modern financial era - that is, before the Treasury had issued price-level-indexed securities - I did the best I could as a low-level member of the staff at the Federal Reserve Board to agitate in favor of the Treasury taking this important step. As you know, in January 1997, the Treasury did in fact begin issuing these securities (though I strongly suspect that the correspondence between my agitation and the actions eventually taken by the Treasury Department was more coincidence than causal). Today, more than $100 billion of the price-level-indexed securities have been sold, with maturity dates ranging between 2002 and 2029. Moreover, I might note that the new inflation-protected I-bond accounts for about a third of our sales of savings bonds.

Nothing has changed my mind about the wisdom of Treasury having issued price-level-indexed securities. However, it is the case that one of the arguments that I among many others made in support of Treasury issuance of the new securities has not come true. In particular, I argued that Treasury issuance of price-level-indexed securities, by finally providing insurers with a means of hedging their price-level risk, would allow the introduction of a new class of retail products offering ironclad protection from inflation. Perhaps the most important of these new products, I speculated, would be price-level-indexed life annuities. Nearly four years after the introduction of TIPS, it still hasn't happened. True enough, there have been one or two exceptions or near-exceptions - perhaps most notably the variable annuity offered by CREF, with a payout that is tied to the performance of a portfolio invested entirely in TIPS. This contract comes very close to providing payouts with constant purchasing power, though as I shall note below, the buyer response not exactly been overwhelming.

So what I would like to do tonight is to tell a detective story about the non-emergence of price-level-indexed securities, more or less in the manner of an Agatha Christie story. When John Shoven asked me to give this talk, I thought it might be difficult to come up

with plausible explanations for this "crime." But I'm happy to report that the authorities have been able to round up a bevy of suspects. So I would like to parade these suspects before you, examine the evidence on each one, and see if we can convict a culprit.

II. The Annuity Market Today

Let me set the stage by being clear about exactly what the mystery is that we are investigating. The essential characteristic of the "missing" product that I have in mind is that the purchasing power of the payments it would provide would be unaffected by inflation surprises. This is to be contrasted with - among other things - a fixed annuity in which the distributions to the policyholder are specified as a fixed number of nominal dollars regardless of their purchasing power, or a variable annuity in which the distributions depend on the investment performance of an underlying portfolio. It is often claimed that a variable annuity tied to the performance of the stock market protects the annuitant against inflation risk, but history suggests otherwise. Brown, Mitchell, and Poterba, for example, find that from 1930 through 1997, the correlation between unanticipated inflation and unanticipated changes in nominal stock prices is actually negative. In other words, when the inflation news is bad, nominal stock prices tend to fall - just the opposite of what an inflation hedge should do.

Overall, the facts of annuities seem to be these: a goodly fraction of retirement savings is not annuitized, and most of the annuities that are purchased are in the form of either fixed or variable annuities. Almost none of it is in the form of purchasing-power-guaranteed annuities. At TIAA-CREF, for example, 41 percent of the amount in 1999 that was annuitized was taken in the form of nominal annuities; another 44 percent was taken in the form of variable annuities, 14 percent in the form of their so-called graded annuity, and a mere 0.2 percent in the form of their inflation-protected annuity. And that is the puzzle. It is interesting to note that real annuities are available in a few other countries, including Chile, Israel, Australia, and the UK. Chile and Israel have plenty of experience with high inflation, so it is not particularly surprising that their financial institutions might be more oriented toward dealing with inflation risk. And the UK began issuing index-linked gilt securities in the early 1980s, so its financial sector may be at a later stage of development in this respect than our own, and might possibly offer us a glimpse of our own future.

Rounding Up The Suspects

With that as background, then let us move to the trial phase of this enquiry. I proceed by calling each suspect to the dock.

A. All innovation takes time, and this one is no different

A first possibility is that innovation takes time in the financial world, just as it does in any other realm of life. By this hypothesis, in other words, "the check is in the mail," though probably not - as some clever person quipped - in the email. I should say that we ourselves are no strangers to lags in the development of new financial products. The State of Massachusetts created the first indexed debt in 1780. And less than three centuries later, the US Treasury followed suit! Anecdotally, about a decade passed in the UK before a deeper appreciation of the usefulness of index-linked gilts took firm root.

B. The non-availability of price-level-indexed corporate debt

A second possibility is that the introduction of *Treasury* inflation-protected securities was a good first step, but that the essential precursor for price-level-indexed annuities is the

emergence of a meaningful market for *corporate* indexed debt. The logic of this view runs as follows: The typical portfolio backing a conventional nominal annuity is mainly invested in corporate debt and mortgage-backed securities. Backing the annuity obligation with private securities allows the annuity provider to earn 100 or 150 basis points above the Treasury rate, and therefore to offer a richer annuity contract. By comparison, a conventional nominal annuity backed entirely by nominal Treasury securities of the same duration would appear to offer a poor return. And so, by analogy, would a price-level-indexed annuity backed entirely by TIPS.

C. The fiscal outlook

Another possibility is that potential providers of price-level-indexed annuities have been taking on board the tremendously favorable fiscal news of the last few years. Those projections, released last summer, showed the debt held by the public being paid off altogether by 2012, potentially leaving would-be providers of price-level-indexed annuities with no means of hedging their inflation risk. Let me offer two reasons for taking that projection seriously. First, the economic assumptions that underlie the projection remain conservative. Second, the Social Security surpluses alone will be large enough, according to our most recent projection, to get the job done.

D. Nominal illusion

Turning to the demand side of the equation, a fourth admittedly prosaic possibility is that potential annuitants suffer from what economists refer to as "nominal illusion." Nominal illusion is a form of confusion that derives from an inability to evaluate dollar amounts, interest rates, and other financial magnitudes in inflation-adjusted terms. For example, when confronted with a choice between receiving a fixed nominal payment of, say, $1,000 per month for as long as they live, versus - say - $750 per month indexed to the price level, many people would choose the former option simply because it involves the higher initial payment. Nominal illusion will make indexed annuities a tough sell, and will require sustained effort to overcome.

E. Adverse selection

Another demand-side possibility - rather contrary in spirit to the preceding hypothesis - is that potential annuitants really are sophisticated, and understand that the payments on a real annuity will be more back-loaded than under a nominal annuity, and therefore subject the real annuity to even more adverse selection than the nominal one. The presence of greater adverse selection implies that, for any *given* potential annuitant, the real contract will look like a worse deal - leaving aside, of course, long-term price-level risk - than the nominal one. And indeed, there is some international evidence of just this sort. For example, a variety of studies conclude that **the "money's worth" of a typical real annuity in the UK is lower than the money's worth of a typical nominal annuity**.

F. Absence of price-level risk

Another possibility that is often mentioned to me is that individuals simply don't believe that there is enough price-level risk to warrant the purchase of purchasing-power insurance. Let me be clear that, by "price-level risk," I mean to refer to surprises in either direction in the purchasing power of a dollar. It seems to me that this "suspect" runs into two important difficulties. First, the relevant uncertainty pertains to surprises in the price level at very long forecast horizons - potentially as far ahead as 20 or 30 years. I don't know a single macroeconomic forecaster who believes that he or she can predict the price level at that horizon with any confidence. Therefore, it seems to me that the premise of low price-level risk - even given today's low *inflation* environment - is

questionable at best. Second, suppose we were to grant the premise of low long-term price-level risk. Then it seems to me we would be driven to the conclusion that insuring against that risk would be very cheap - not that we should take out the insurance. On the whole, I am skeptical that this explanation has much to say about the matter.

G. Tax effects

Lastly, there is the possibility that price-level-indexed securities might be treated less favorably by the tax code than their nominal cousins. While I am not in a position to deliver a definitive statement on this issue, at least as a first cut, I can say that if they ever issued inflation-protected annuities, insurance companies probably would issue them out of their general account, so that the profits from issuing the contracts would be taxed under the same regime that applies to so-called "fixed" annuities. There are no federal tax-law barriers in this treatment. There may be state law questions to be answered.

IV. Judge and Jury

As mentioned at the outset, when I agreed to give this talk, I worried for a while that I might not be able to identify any plausible suspects. Now, I feel a bit more like Hercule Poirot on the Orient Express, with a room full of potential perpetrators of the crime. As Poirot concluded, it may be that many suspects indeed have had a hand in the crime. Here is what I take away from the trial we have just conducted: I now suspect that two further developments may be required for a market for price-level-indexed annuities to become well established. On the supply side, notwithstanding all the puzzles that it raises, I am inclined to think that corporations may have to begin issuing price-level-indexed debt, and individuals may have to borrow to a much greater degree through price-level mortgages.

On the demand side, we are going to have to undertake a major public education effort in order to overcome nominal illusion in particular, and improve financial proficiency generally. After all, a major social marketing campaign was required to persuade the American public of the wisdom of wearing one's seatbelt while riding in a car or truck - and that in a context where the adverse consequences of failure to comply were all too graphically evident. In this connection, I should note that the Treasury Department has been pleased to participate in the launch of a new organization called the National Partners for Financial Empowerment, or NPFE. The mission of the NPFE is to bolster and support the work of the many groups around the country that are promoting the importance of personal financial management to all Americans. In that undertaking - the effort to educate the public about the wisdom of prudently providing for one's long-term financial security in retirement - I solicit your continued commitment to a cause that is essential to helping the nation prepare for the enormous demographic adjustments ahead. I look forward to addressing this group again in ten years, long after a market for price-level-indexed annuities has taken root and flourished, and having the opportunity to talk with you then about how your clients finally have a wonderful new financial tool for making their lives in retirement more financially secure.

CHAPTER 6 GENERAL RULE FOR ANNUITIES

Introduction

This chapter gives the information needed to determine the tax treatment of pension and annuity income under the General Rule. Generally, each monthly annuity payment is made up of two parts: the tax-free part that is a return of a person's net cost and the taxable balance.

What is the General Rule? The General Rule is one of the two methods used to figure the tax-free part of each annuity payment based on the ratio of an individual's investment in the contract to the total expected return. The other method is the Simplified Method, which is discussed in another chapter.

Who must use the General Rule- An individual must use the rule if he or she receives pension or annuity payments from:

1) A nonqualified plan (for example, a private annuity, a purchased commercial annuity, or a nonqualified employee plan),
2) A qualified plan if:
    a) The annuity starting date is before November 19, 1996 (and after July 1, 1986), and the annuitant does not qualify to use, or chooses not to use, the Simplified Method, or
    b) The annuitant is 75 or over and the annuity payments are guaranteed for at least 5 years (regardless of the annuity starting date), or
3) An individual retirement account or annuity (IRA). The life expectancy tables in this chapter can help the taxpayer in computing his or her minimum required distribution amount, as described in a separate chapter

If a person's annuity starting date is after November 18, 1996, the General Rule cannot be used for the following qualified plans.

- A qualified employee plan.
- A qualified employee annuity.
- A tax–sheltered annuity (TSA) plan or contract.

If someone cannot use the General Rule- If the annuity starting date is after November 18, 1996, a taxpayer must use the Simplified Method for annuity payments from a qualified plan. If, at the time the annuity payments began, an individual was at least 75 and was entitled to annuity payments from a qualified plan with fewer than 5 years of guaranteed payments, he or she must use the Simplified Method.

General Information

Some of the terms used in this chapter are defined in the following paragraphs.

- A pension is generally a series of payments made after a person retires from work. Pension payments are made regularly and are for past services with an employer.
- An annuity is a series of payments under a contract. An individual can buy the contract alone or it can be bought with the help of an employer. Annuity payments are made regularly for more than one full year.

Types of pensions and annuities- Particular types of pensions and annuities include:

1. Fixed period annuities. The plan participant receives definite amounts at regular intervals for a definite length of time.
2. Annuities for a single life. An individual receives definite amounts at regular intervals for life. The payments end at death.
3. Joint and survivor annuities. The first annuitant receives a definite amount at regular intervals for life. After he or she dies, a second annuitant receives a definite amount at regular intervals for life. The amount paid to the second annuitant may or may not differ from the amount paid to the first annuitant.
4. Variable annuities. The annuitant receives payments that may vary in amount for a definite length of time or for life. The amounts received may depend upon such variables as profits earned by the pension or annuity funds or cost-of-living indexes.
5. Disability pensions. The plan participant is under minimum retirement age and receives payments because he or she retired on disability. If, at the time of retirement, he or she was permanently and totally disabled, the individual may be eligible for the credit for the elderly or the disabled.

If the annuity starting date is after November 18, 1996, the General Rule cannot be used for the following qualified plans.

- A **qualified employee plan** is an employer's stock bonus, pension, or profit-sharing plan that is for the exclusive benefit of employees or their beneficiaries. This plan must meet Internal Revenue Code requirements. It qualifies for special tax benefits, including tax deferral for employer contributions and rollover distributions, and capital gain treatment or the 5– or 10–year tax option for lump-sum distributions.
- A **qualified employee annuity** is a retirement annuity purchased by an employer for an employee under a plan that meets Internal Revenue Code requirements.
- A **tax-sheltered annuity** is a special annuity plan or contract purchased for an employee of a public school or tax-exempt organization.

The General Rule is used to figure the tax treatment of various types of pensions and annuities, including nonqualified employee plans, defined below:
A nonqualified employee plan is an employer's plan that does not meet Internal Revenue Code requirements. It does not qualify for most of the tax benefits of a qualified plan.
Annuity worksheets. The worksheets found at the end of this chapter are useful in figuring the taxable part of an annuity.

Withholding tax and estimated tax- The pension or annuity is subject to federal income tax withholding unless the choice is made not to have tax withheld. If an individual chooses not to have tax withheld from his or her pension or annuity, or if they do not have enough income tax withheld, estimated tax payments may be required.

Taxation of Periodic Payments

This section explains how the periodic payments received under a pension or annuity plan are taxed under the General Rule. Periodic payments are amounts paid at regular intervals (such as weekly, monthly, or yearly) for a period of time greater than one year (such as for 15 years or for life). These payments are also known as amounts received as an annuity.

For amount received from a plan that is a nonperiodic payment (amount not received as an annuity), see the chapter on Pension and Annuity Income. This chapter also covers loans from nonqualified plans and certain transfers of annuity contracts.

In general, a person can recover net cost of the pension or annuity tax free over the period for which payments are to be received. The amount of each payment that is more than the part that represents net cost is taxable. Under the General Rule, **the part of each annuity payment that represents an individual's net cost is in the same proportion that the investment in the contract is to his or her expected return**. These terms are explained in the following discussions.

Investment in the Contract

In figuring how much of a pension or annuity is taxable under the General Rule, the taxpayer must figure the investment in the contract. First, find the net cost of the contract as of the annuity starting date (defined later). To find this amount, the taxpayer must first figure the total premiums, contributions, or other amounts paid. This includes the amounts contributed by the employer if these amounts were required to be included in income. It also includes amounts actually contributed by the individual (except amounts for health and accident benefits and deductible voluntary employee contributions).

From this **total cost** is subtracted

1) Any refunded premiums, rebates, dividends, or unrepaid loans (any of which were not included in income) that were received by the later of the annuity starting date or the date on which the annuitant received his or her first payment.
2) Any additional premiums paid for double indemnity or disability benefits.
3) Any other tax–free amounts received by a person under the contract or plan before the later of the dates in (1).

The annuity starting date is either the later of the first day of the first period for which payment was received under the contract or the date on which the obligation under the contract becomes fixed, whichever comes later.

Example. On January 1 you completed all your payments required under an annuity contract providing for monthly payments starting on August 1, for the period beginning July 1. The annuity starting date is July 1. This is the date you use in figuring your investment in the contract and your expected return (discussed later).

Adjustments

If any of the following items apply, adjust (add or subtract) the total cost to find net cost.

Foreign employment. If someone worked abroad before 1963, the cost includes amounts contributed by his or her employer that were not includible in their gross income. The contributions that apply were made either:

1) Before 1963 by the employer for that work, or
2) After 1962 by the employer for that work if the services were performed under a plan that existed on March 12, 1962.

Death benefit exclusion. If an individual is the beneficiary of a deceased employee (or former employee), who died before August 21, 1996, he or she may qualify for a death benefit exclusion of up to $5,000.

New law repealed this exclusion from income if the individual in question is the

beneficiary of an employee who died after August 20, 1996.

How to adjust the total cost. If an individual is eligible, the amount of any allowable death benefit exclusion can be treated as additional cost paid by the employee. It should be added to the cost or unrecovered cost of the annuity at the annuity starting date. See Example 3 under Computation Under General Rule for an illustration of the adjustment to the cost of the contract.
Net cost. The amount that has been figured so far, the total cost plus certain adjustments and minus other amounts already recovered before the annuity starting date, is the net cost. This is the unrecovered investment in the contract as of the annuity starting date. If an individual's annuity starting date is after 1986, this is the maximum amount that he or she may recover tax free under the contract.

Refund feature- Adjustment for the value of the refund feature is only applicable when a person reports his or her pension or annuity under the General Rule. An annuity contract has a refund feature if:
1) The expected return (discussed later) of an annuity depends entirely or partly on the life of one or more persons,
2) The contract provides that payments will be made to a beneficiary or the estate of an annuitant on or after the death of the annuitant if a stated amount or a stated number of payments has not been paid to the annuitant or annuitants before death, and
3) The payments are a refund of the amount paid by the individual for the annuity contract.

If someone is reporting an annuity under the General Rule, and the annuity has a refund feature, the individual must reduce net cost of the contract by the value of the refund feature (figured using Table III or VII. Available at www.irs.gov to which you will be directed at the end of this chapter-see How to Use Actuarial Tables, later) to find the investment in the contract.
Zero value of refund feature. For a joint and survivor annuity, the value of the refund feature is zero if:

1) Both annuitants are age 74 or younger,
2) The payments are guaranteed for less than 2½ years, and
3) The survivor's annuity is at least 50% of the first annuitant's annuity.

For a single-life annuity without survivor benefit, the value of the refund feature is zero if:

1) The payments are guaranteed for less than 2½ years, and
2) The annuitant is:
    a) Age 57 or younger (if using the new (unisex) annuity tables),
    b) Age 42 or younger (if male and using the old annuity tables), or
    c) Age 47 or younger (if female and using the old annuity tables).

If the annuitant does not meet these requirements, he or she will have to figure the value of the refund feature, as explained in the following discussion.

Examples. The first example shows how to figure the value of the refund feature when there is only one beneficiary. Example 2 shows how to figure the value of the refund feature when the contract provides, in addition to a whole life annuity, one or more temporary life annuities for the lives of children. In both examples, the taxpayer elects to use Tables V through VIII. The value of the refund feature for a joint and survivor

annuity requires Internal Revenue Service guidance and is beyond the scope of this book.

Example 1. At age 65, Barbara Brown bought for $21,053 an annuity with a refund feature. She will get $100 a month for life. Barbara's contract provides that if she does not live long enough to recover the full $21,053, similar payments will be made to her surviving beneficiary until a total of $21,053 has been paid under the contract. In this case, the contract cost and the total guaranteed return are the same ($21,053). Barbara's investment in the contract is figured as follows:

Net cost		$21,053
Amount to be received annually	$1,200	
Number of years for which payment is guaranteed ($21,053 divided by $1,200)	17.54	
Rounded to nearest whole number of years	18	
Percentage from Actuarial Table VII for age 65 with 18 years of guaranteed payments	15%	
Value of the refund feature (rounded to the nearest dollar)—15% of $21,053		3,158
Investment in the contract, adjusted for value of refund feature		$17,895

If the total guaranteed return were less than the $21,053 net cost of the contract, Barbara would apply the appropriate percentage from the tables to the lesser amount. For example, if the contract guaranteed the $100 monthly payments for 17 years to Barbara's estate or beneficiary if she were to die before receiving all the payments for that period, the total guaranteed return would be $20,400 ($100 × 12 × 17 years). In this case, the value of the refund feature would be $2,856 (14% of $20,400) and Barbara's investment in the contract would be $18,197 ($21,053 minus $2,856) instead of $17,895.

Example 2. John Chase died while still employed. His widow, Eleanor, age 48, receives $171 a month for the rest of her life. John's son, Elmer, age 9, receives $50 a month until he reaches age 18. John's contributions to the retirement fund totaled $7,559.45, with interest on those contributions of $1,602.53. The guarantee or total refund feature of the contract is $9,161.98 ($7,559.45 plus $1,602.53).

The adjustment in the investment in the contract is figured as follows:

A) Expected return:*		
1) Widow's expected return: Annual annuity ($171 × 12)	$2,052	
Multiplied by factor from Table V (nearest age 48)	34.9	$71,614.80
2) Child's expected return: Annual annuity ($50 × 12)	$600	
Multiplied by factor from Table VIII (nearest age 9 for term of 9 years)	9.0	5,400.00
3) Total expected return		$77,014.80
B) Adjustment for refund feature:		
1) Contributions		$7,559.45
2) Death benefit exclusion**		5,000.00

3) Net cost: B(1) + B(2)		$12,559.45
4) Guaranteed amount (contributions of $7,559.45 plus interest of $1,602.53)		$9,161.98
5) Minus: Expected return under child's (temporary life) annuity (A(2))		5,400.00
6) Net guaranteed amount		$3,761.98
7) Multiple from Table VII (nearest age 48 for 2 years duration [recovery of $3,761.98 at $171 a month to nearest whole year])		0%
8) Adjustment required for value of refund feature rounded to the nearest whole dollar (0% × $3,761.98, the smaller of B(3) or B(6))		
*Expected return is the total amount the original annuitant and other eligible annuitants can expect to receive under the contract. See the discussion of expected return, below.		
**The death benefit exclusion is discussed earlier.		

Expected Return

The expected return is the total amount the taxpayer and other eligible annuitants can expect to receive under the contract. The following discussions explain how to figure the expected return with each type of annuity. A person's age, for purposes of figuring the expected return, is the age at the birthday nearest to the annuity starting date.

Fixed period annuity- If a person expects to receive annuity payments for a fixed number of years, without regard to his or her life expectancy, the expected return must be figured based on that fixed number of years. It is the total amount to be received by the annuitant and other eligible annuitants beginning at the annuity starting date. Specific periodic payments are expected to be received for a definite period of time, such as a fixed number of months (but not less than 13). To figure the expected return, one should multiply the fixed number of months for which payments are to be made by the amount of the payment specified for each period.

Single life annuity- If annuity payments are to be received for the rest of the annuitant's life, find the expected return as follows. The person must multiply the amount of the annual payment by a multiple based on his or her life expectancy as of the annuity starting date. These multiples are set out in actuarial Table I at the end of this chapter (see How To Use Actuarial Tables, later) Actuarial Table V is available on line at the IRS website, www.IRS.gov. These multiples may need adjustment if the payments are made quarterly, semiannually, or annually. See Adjustments to Tables I, II, V, VI, and VIA following Table I.

Example. Henry Martin bought an annuity contract that will give him an annuity of $500 a month for his life. If at the annuity starting date Henry's nearest birthday is 66, the expected return is figured as follows:

Annual payment ($500 × 12 months)	$6,000
Multiple shown in Table V, age 66	× 19.2
Expected return	$115,200

If the payments were to be made to Henry quarterly and the first payment was made one full month after the annuity starting date, Henry would adjust the 19.2 multiple by +.1. His expected return would then be $115,800 ($6,000 × 19.3).

Annuity for shorter of life or specified period. With this type of annuity, annuity payments are expected to be received either for the rest of an individual's life or until the end of a specified period, whichever period is shorter. To figure the expected return, one must multiply the amount of the annual payment by a multiple in Table IV or VIII for temporary life annuities (Actuarial Tables IV and VIII are available on line at the IRS website, www.IRS.gov). The proper multiple based on a person's sex and age should be found for the annuity starting date, and the nearest whole number of years in the specified period.

Example. Harriet Brown purchased an annuity this year that will pay her $200 each month for five years or until she dies, whichever period is shorter. She was age 65 at her birthday nearest the annuity starting date. She figures the expected return as follows:

Annual payment ($200 × 12 months)	$2,400
Multiple shown in Table VIII, age 65, 5–year term	× 4.9
Expected return	$11,760

She uses Table VIII (not Table IV) because all her contributions were made after June 30, 1986. See Special Elections, later.

Joint and survivor annuities- If a person has an annuity that pays a periodic income for life and after the individual's death provides an identical lifetime periodic income to the spouse (or some other person), the expected return should be figured based on their combined life expectancies. To figure the expected return, multiply the annual payment by a multiple in Table II or VI based on the joint life expectancies. These tables are available on line at the IRS website, www.irs.gov If the payments are made quarterly, semiannually, or annually, the multiples need to be adjusted. See Adjustments to Tables I, II, V, VI, and VIA following Table I at the end of this chapter.

Example John Carter bought a joint and survivor annuity providing payments of $500 a month for his life, and, after his death, $500 a month for the remainder of his wife's life. At John's annuity starting date, his age at his nearest birthday is 70 and his wife's at her nearest birthday is 67. The expected return is figured as follows:

Annual payment ($500 × 12 months)	$6,000
Multiple shown in Table VI, ages 67 and 70	× 22.0
Expected return	$132,000

Different payments to survivor- If the contract provides that payments to a survivor annuitant will be different from the amount received by the first annuitant, a computation must be used which accounts for both the joint lives of the annuitants and the life of the survivor.

Example 1. Gerald Morris bought a contract providing for payments to him of $500 a month for life and, after his death, payments to his wife, Mary, of $350 a month for life. If, at the annuity starting date, Gerald's nearest birthday is 70 and Mary's is 67, the expected return under the contract is figured as follows:

Combined multiple for Gerald and Mary, ages 70 and 67 (from Table VI)		22.0
Multiple for Gerald, age 70 (from Table V)		16.0
Difference: Multiple applicable to Mary		6.0
Gerald's annual payment ($500 × 12)	$6,000	

Gerald's multiple	16.0	
Gerald's expected return		$96,000
Mary's annual payment ($350 × 12)	$4,200	
Mary's multiple	6.0	
Mary's expected return		25,200
Total expected return under the contract		$121,200

Example 2. Your husband died while still employed. Under the terms of his employer's retirement plan, you are entitled to get an immediate annuity of $400 a month for the rest of your life or until you remarry. Your daughters, Marie and Jean, are each entitled to immediate temporary life annuities of $150 a month until they reach age 18. You elect to use Tables V through VIII. You were 50 years old at the annuity starting date. Marie was 16 and Jean was 14. Using the multiples shown in Tables V and VIII (available on line at the IRS website, www.irs.gov), the total expected return on the annuity starting date is $169,680, figured as follows:

Widow, age 50 (multiple from Table V—33.1 × $4,800 annual payment)	$158,880
Marie, age 16 for 2 years duration (multiple from Table VIII—2.0 × $1,800 annual payment)	3,600
Jean, age 14 for 4 years duration (multiple from Table VIII—4.0 × $1,800 annual payment)	7,200
Total expected return	$169,680

No computation of expected return is made based on your husband's age at the date of death because he died before the annuity starting date.

Computation Under General Rule

Under the General Rule, the taxpayer figures the taxable part of the annuity by using the following steps:

Step 1. The amount of the investment in the contract should be figured, including any adjustments for the refund feature and the death benefit exclusion. This exclusion from income does not apply if someone is the beneficiary of an employee who died after August 20, 1996. If qualified, see adjustments to cost of the contract, earlier.

Step 2. Figure the expected return.

Step 3. Divide Step 1 by Step 2 and round to three decimal places. This will give the exclusion percentage.

Step 4. Multiply the exclusion percentage by the first regular periodic payment. The result is the tax-free part of each pension or annuity payment. The tax-free part remains the same even if the total payment increases or if the taxpayer outlives the life expectancy factor used. If the annuity starting date is after 1986, the total amount of annuity income that is tax free over the years cannot exceed the net cost. Each annuitant applies the same exclusion percentage to his or her initial payment called for in the contract.

Step 5. Multiply the tax-free part of each payment (step 4) by the number of payments received during the year. This will give the tax-free part of the total payment for the year. In the first year of the annuity, the individual's first payment or part of the first payment may be for a fraction of the payment period. This fractional amount is multiplied by the exclusion percentage to get the tax-free part.

Step 6. Subtract the tax-free part from the total payment which has been received. The rest is the taxable part of the pension or annuity.
Example 1. You purchased an annuity with an investment in the contract of $10,800. Under its terms, the annuity will pay you $100 a month for life. The multiple for your age (age 65) is 20.0 as shown in Table V. Your expected return is $24,000 (20 × 12 × $100). Your cost of $10,800, divided by your expected return of $24,000, equals 45.0%. This is the percentage you will not have to include in income. Each year, until your net cost is recovered, $540 (45% of $1,200) will be tax free and you will include $660 ($1,200 - $540) in your income. If you had received only six payments of $100 ($600) during the year, your exclusion would have been $270 (45% of $100 × 6 payments).
Example 2. Gerald Morris bought a joint and survivor annuity. Gerald's investment in the contract is $62,712 and the expected return is $121,200. The exclusion percentage is 51.7% ($62,712 ÷ $121,200). Gerald will receive $500 a month ($6,000 a year). Each year, until his net cost is recovered, $3,102 (51.7% of his total payments received of $6,000) will be tax free and $2,898 ($6,000 - $3,102) will be included in his income. If Gerald dies, his wife will receive $350 a month ($4,200 a year). If Gerald had not recovered all of his net cost before his death, his wife will use the same exclusion percentage (51.7%). Each year, until the entire net cost is recovered, his wife will receive $2,171.40 (51.7% of her payments received of $4,200) tax free. She will include $2,028.60 ($4,200 - $2,171.40) in her income tax return.
Example 3. Using the same facts as Example 2 under Different payments to survivor, you are to receive an annual annuity of $4,800 until you die or remarry. Your two daughters each receive annual annuities of $1,800 until they reach age 18. Your husband contributed $25,576 to the plan. You are eligible for the $5,000 death benefit exclusion because your husband died before August 21, 1996.

Adjusted Investment in the Contract	
Contributions	$25,576
Plus: Death benefit exclusion	5,000
Adjusted investment in the contract	$30,576

The total expected return, as previously figured (in Example 2 under Different payments to survivor), is $169,680. The exclusion percentage of 18.0% ($30,576 ÷ $169,680) applies to the annuity payments you and each of your daughters receive. Each full year $864 (18.0% × $4,800) will be tax free to you, and you must include $3,936 in your income tax return. Each year, until age 18, $324 (18.0% × $1,800) of each of your daughters' payments will be tax free and each must include the balance, $1,476, as income on her own income tax return.
Part-year payments. If an individual receives payments for only part of a year, the exclusion percentage should be applied to the first regular periodic payment, and the result is multiplied by the number of payments received during the year. If a fractional payment is received, follow Step 5, discussed earlier. This gives the tax-free part of the total payment.
Example. On September 28, Mary Jones bought an annuity contract for $22,050 that will give her $125 a month for life, beginning October 30. The applicable multiple from Table V is 23.3 (age 61). Her expected return is $34,950 ($125 × 12 × 23.3). Mary's investment in the contract of $22,050, divided by her expected return of $34,950, equals 63.1%. Each payment received will consist of 63.1% return of cost and 36.9% taxable income, until her net cost of the contract is fully recovered. During the first year, Mary received three payments of $125, or $375, of which $236.63 (63.1% × $375) is a return

of cost. The remaining $138.37 is included in income.

Increase in annuity payments- The tax-free amount remains the same as the amount figured at the annuity starting date, even if the payment increases. All increases in the installment payments are fully taxable.

Example- Joe Smith's wife died on January 1, 20x7 while she was still employed and, as her beneficiary, he began receiving an annuity of $147 per month. In figuring the taxable part, Joe elects to use Tables V through VIII (Actuarial Table V through VIII are available on-line at the IRS website, www.IRS.gov). The cost of the contract was $7,938, consisting of the sum of his wife's net contributions, adjusted for any refund feature. His expected return as of the annuity starting date is $35,280 (age 65, multiple of 20.0 × $1,764 annual payment). The exclusion percentage is $7,938 ÷ $35,280, or 22.5%. During the year he received 11 monthly payments of $147, or $1,617. Of this amount, 22.5% × $147 × 11 ($363.83) is tax free as a return of cost and the balance of $1,253.17 is taxable. Later, because of a cost-of-living increase, his annuity payment was increased to $166 per month, or $1,992 a year (12 × $166). The tax-free part is still only 22.5% of the annuity payments as of the annuity starting date (22.5% × $147 × 12 = $396.90 for a full year). The increase of $228 ($1,992 - $1,764 (12 × $147)) is fully taxable.

Variable annuities- For variable annuity payments, figure the amount of each payment that is tax free by dividing the investment in the contract (adjusted for any refund feature) by the total number of periodic payments expected to be received under the contract. If the annuity is for a definite period, the total number of payments is determined by multiplying the number of payments to be made each year by the number of years the annuitant will receive payments. If the annuity is for life, the total number of payments is determined by using a multiple from the appropriate actuarial table.

Example- Frank Green purchased a variable annuity at age 65. The total cost of the contract was $12,000. The annuity starting date is January 1 of the year of purchase. His annuity will be paid, starting July 1, in variable annual installments for his life. The tax-free amount of each payment, until he has recovered his cost of his contract, is:

Investment in the contract	$12,000
Number of expected annual payments (multiple for age 65 from Table V)	20
Tax-free amount of each payment ($12,000 ÷ 20)	$600

If Frank's first payment is $920, he includes only $320 ($920 - $600) in his gross income.

If **the tax-free amount for a year is more than the payments received** in that year, a person may choose, when the next payment is received, to refigure the tax-free part. Divide the amount of the periodic tax-free part that is more than the payment received by the remaining number of payments expected by the annuitant. The result is added to the previously figured periodic tax-free part. The sum is the amount of each future payment that will be tax free.

Example. Using the facts of the previous example about Frank Green, assume that after Frank's $920 payment, he received $500 in the following year, and $1,200 in the year after that. Frank does not pay tax on the $500 (second year) payment because

$600 of each annual pension payment is tax free. Since the $500 payment is less than the $600 annual tax-free amount, he may choose to refigure his tax-free part when he receives his $1,200 (third year) payment, as follows:

Amount tax free in second year	$600.00
Amount received in second year	500.00
Difference	$100.00
Number of remaining payments after the first 2 payments (age 67, from Table V)	18.4
Amount to be added to previously determined annual tax-free part ($100 ÷ 18.4)	$5.43
Revised annual tax-free part for third and later years ($600 + $5.43)	$605.43
Amount taxable in third year ($1,200 - $605.43)	$594.57

If someone chooses to refigure the tax-free amount, a statement must be filed with the income tax return stating that the taxpayer is refiguring the tax-free amount in accordance with the rules of section 1.72–4(d)(3) of the Income Tax Regulations. The statement must also show the following information:
1) The annuity starting date and taxpayer's age on that date.
2) The first day of the first period for which an annuity payment was received in the current year.
3) The investment in the contract as originally figured.
4) The total of all amounts received tax free under the annuity from the annuity starting date through the first day of the first period for which the taxpayer received an annuity payment in the current tax year.

Exclusion Limits

The annuity starting date determines the total amount of annuity income that one can exclude from income over the years.
Exclusion limited to net cost. If the annuity starting date is after 1986, the total amount of annuity income that can be excluded over the years as a return of cost cannot exceed the annuitant's net cost (figured without any reduction for a refund feature). This is the **unrecovered investment in the contract** as of the annuity starting date. If the annuity starting date is after July 1, 1986, any unrecovered net cost at the original annuitant's (or last annuitant's) death is allowed as a miscellaneous itemized deduction on the final return of the decedent. This deduction is not subject to the 2%-of-adjusted-gross-income limit.
Example 1 Your annuity starting date is after 1986. Your total cost is $12,500, and your net cost is $10,000, taking into account certain adjustments. There is no refund feature. Your monthly annuity payment is $833.33. Your exclusion ratio is 12% and you exclude $100 a month. Your exclusion ends after 100 months, when you have excluded your net cost of $10,000. Thereafter, your annuity payments are fully taxable.
Example 2 The facts are the same as in Example 1, except that there is a refund feature, and you die after 5 years with no surviving annuitant. The adjustment for the refund feature is $1,000, so the investment in the contract is $9,000. The exclusion ratio is 10.8%, and your monthly exclusion is $90. After 5 years (60 months), you have

recovered tax free only $5,400 ($90 x 60). An itemized deduction for the unrecovered net cost of $4,600 ($10,000 net cost minus $5,400) may be taken on your final income tax return. Your unrecovered investment is determined without regard to the refund feature adjustment, discussed earlier.

Exclusion not limited to net cost. If an annuity starting date was before 1987, a person can continue to take monthly exclusion for as long as the annuity is received. If a joint and survivor annuity was chosen, the survivor continues to take the survivor's exclusion figured as of the annuity starting date. The total exclusion may be more than the investment in the contract.

How To Use Actuarial Tables

In figuring, under the General Rule, the taxable part of annuity payments that someone is to receive for the rest of his or her life (rather than for a fixed number of years), it will be necessary to use one or more of the actuarial tables mentioned in this chapter. Tables I & II are presented, but space considerations preclude display of all 50 pages of tables in this book. The actuarial tables needed are available on line at the IRS website, www.IRS.gov

Unisex Annuity Tables

Effective July 1, 1986, the Internal Revenue Service adopted new annuity Tables V through VIII, in which sex is not considered when determining the applicable factor. These tables correspond to the old Tables I through IV. In general, Tables V through VIII must be used if a person made contributions to the retirement plan after June 30, 1986. If no contributions were made to the plan after June 30, 1986, generally one must use only Tables I through IV. However, if an individual received an annuity payment after June 30, 1986, he or she may elect to use Tables V through VIII (see Annuity received after June 30, 1986, later).

Special Elections

Although Tables V through VIII generally must be used if contributions were made to the retirement plan after June 30, 1986, and Tables I through IV if an individual made no contributions after June 30, 1986, the following special elections can be made to select which tables to use.

Contributions made both before July 1986 and after June 1986. If a person made contributions to the retirement plan both before July 1986 and after June 1986, he or she may elect to use Tables I through IV for the pre–July 1986 cost of the contract, and Tables V through VIII for the post–June 1986 cost. (See the examples below.)

Making the election. The following statement should be attached to the income tax return for the first year in which an annuity is received:

"I elect to apply the provisions of paragraph (d) of section 1.72–6 of the Income Tax Regulations."

The statement must also include the annuitant's name, address, social security number, and the amount of the pre–July 1986 investment in the contract.

If the investment in the contract includes post–June 1986 contributions to the plan, and election to use Tables I through IV and Tables V through VIII is not made, then the taxpayer can only use Tables V through VIII in figuring the taxable part of his or her annuity. He or she must also use Tables V through VIII if they are unable or do not wish to determine the portions of the contributions which were made before July 1, 1986 and

after June 30, 1986.
Advantages of election- In general, a lesser amount of each annual annuity payment is taxable if the exclusion ratio is separately figured for pre–July 1986 and post–June 1986 contributions.

If someone intends to make this election, records that substantiate pre–July 1986 and post–June 1986 contributions must be saved. If the death benefit exclusion applies (see discussion, earlier), it is not necessary to apportion it between the pre-July 1986 and the post-June 1986 investment in the contract. The following examples illustrate the separate computations required if a person elects to use Tables I through IV for the pre–July 1986 investment in the contract and Tables V through VIII for the post–June 1986 investment in the contract.

Example 1. Bill Green, who is single, contributed $42,000 to the retirement plan and will receive an annual annuity of $24,000 for life. Payment of the $42,000 contribution is guaranteed under a refund feature. Bill is 55 years old as of the annuity starting date. For figuring the taxable part of Bill's annuity, he chose to make separate computations for his pre–July 1986 investment in the contract of $41,300, and for his post–June 1986 investment in the contract of $700.

	Pre–July 1986	**Post–June1986**
A. Adjustment for Refund Feature		
1) Net cost	$41,300	$700
2) Annual annuity—$24,000 $41,300/$42,000 × $24,000) ($700/42,000 × $24,000)	$23,600	$400
3) Guarantee under contract	$41,300	$700
4) No. of years payments guaranteed (rounded), A(3) ÷ A(2)	2	2
5) Applicable percentage from Tables III and VII	1%	0%
6) Adjustment for value of refund feature, A(5) × smaller of A(1) or A(3)	$413	$0
B. Investment in the Contract		
1) Net cost	$41,300	$700
2) Minus: Amount in A(6)	413	0
3) Investment in the contract	$40,887	$700
C. Expected return		
1) Annual annuity receivable	$24,000	$24,000
2) Multiples from Tables I and V	21.7	28.6
3) Expected return, C(1) × C(2)	$520,800	$686,400
D. Tax–Free Part of Annuity		
1) Exclusion ratio as decimal, B(3) ÷ C(3)	.079	.001
2) Tax–free part, C(1) × D(1)	$1,896	$24

The tax–free part of Bill's total annuity is $1,920 ($1,896 plus $24). The taxable part of his annuity is $22,080 ($24,000 minus $1,920). If the annuity starting date is after 1986, the exclusion over the years cannot exceed the net cost (figured without any reduction for a refund feature).

Example 2. Al Brown is age 62 at his nearest birthday to the annuity starting date. Al's wife is age 60 at her nearest birthday to the annuity starting date. The joint and survivor annuity pays $1,000 per month to Al for life, and $500 per month to Al's surviving wife after his death. The pre–July 1986 investment in the contract is $53,100 and the post–June 1986 investment in the contract is $7,000. Al makes the election described in Example 1. For purposes of this example, assume the refund feature adjustment is zero. If an adjustment is required, IRS will figure the amount.

	Pre–July 1986	**Post–June1986**
A. Refund Feature Adjustment		
1) Net cost	$53,100	$7,000
2) Annual annuity—$12,000 ($53,100/$60,100 × $12,000) ..... ($7,000/$60,100 × $12,000)	$10,602	$1,398
3) Guaranteed under the contract	$53,100	$7,000
4) Number of years guaranteed, rounded, A(3) ÷ A(2)	5	5
5) Applicable percentages	0%	0%
6) Refund feature adjustment, A(5) × smaller of A(1) or A(3)	0	0
B. Investment in the Contract		
1) Net cost	$53,100	$7,000
2) Refund feature adjustment	0	0
3) Investment in the contract adjusted for refund feature	$53,100	$7,000
C. Expected Return		
1) Multiple for both annuitants from Tables II and VI	25.4	28.8
2) Multiple for first annuitant from Tables I and V	16.9	22.5
3) Multiple applicable to surviving annuitant, subtract C(2) from C(1)	8.5	6.3
4) Annual annuity to surviving annuitant	$6,000	$6,000
5) Portion of expected return for surviving annuitant, C(4) × C(3)	$51,000	$37,800
6) Annual annuity to first annuitant	$12,000	$12,000
7) Plus: Portion of expected return for first annuitant, C(6) × C(2) .	$202,800	$270,000
8) Expected return for both annuitants, C(5) + C(7)	$253,800	$307,800
D. Tax–free part of annuity		
1) Exclusion ratio as a decimal, B(3) ÷ C(8)	.209	.023
2) Retiree's tax–free part of annuity, C(6) × D(1)	$2,508	$276
3) Survivor's tax–free part of annuity, C(4) × D(1)	$1,254	$138

[The adjustment topic is beyond the scope of this book, 'Requesting a Ruling on Taxation of Annuity' can be found at the IRS website.]

The tax-free part of Al's total annuity is $2,784 ($2,508 + $276). The taxable part of his annuity is $9,216 ($12,000 - $2,784). The exclusion over the years cannot exceed the net cost of the contract (figured without any reduction for a refund feature) if the annuity starting date is after 1986. After Al's death, his widow will apply the same exclusion percentages (20.9% and 2.3%) to her annual annuity of $6,000 to figure the tax–free part of her annuity.

Annuity received after June 30, 1986. If an annuity payment was received after June 30, 1986, (regardless of the annuity starting date), a person may elect to treat the entire cost of the contract as post–June 1986 cost (even if no post–June 1986 contributions to the plan were made) and use Tables V through VIII. Once made, the taxpayer cannot revoke the election, which will apply to all payments during the year and in any later year.

Make the election by attaching the following statement to the income tax return.

"I elect, under section 1.72–9 of the Income Tax Regulations, to treat my entire cost of the contract as a post–June 1986 cost of the plan."

The statement must also include taxpayer name, address, and social security number. A person should also indicate that he or she is making this election if they are unable or do not wish to determine the parts of the contributions which were made before July 1, 1986 and after June 30, 1986.

Disqualifying form of payment or settlement. If the annuity starting date is after June 30, 1986, and the contract provides for a disqualifying form of payment or settlement, such as an option to receive a lump sum in full discharge of the obligation under the contract, the entire investment in the contract is treated as post–June 1986 investment in the contract. IRS Regulations §1.72–6(d)(3) gives additional examples of disqualifying forms of payment or settlement. It is available at the IRS website- www.irs.gov. Further comments on §1.72 can be found at the end of this chapter.

Worksheet I

For Determining Taxable Annuity Under Regulations Section 1.72-6(d)(6) Election For Single Annuitant With No Survivor Annuity

	Pre-July 1986	Post-June 1986
A. Refund Feature Adjustment	_____	_____
1) Net cost (total cost less returned premiums, dividends, etc.)	_____	_____
2) Annual annuity allocation: Portion of net cost in A(1) / Net cost X annual annuity	_____	_____
3) Guaranteed under the contract	_____	_____
4) Number of years guaranteed (rounded) to whole years: A(3) divided by A(2)	_____	_____
5) Applicable percentages from Tables III and VII	_____	_____
6) Refund feature adjustment: A(5) times lesser of A(1) or A(3)	_____	_____
B. Investment in the Contract	_____	_____
1) Net cost: A(1)	_____	_____
2) Refund feature adjustment: A(6)	_____	_____
3) Investment in the contract adjusted for refund feature: B(1) minus B(2)	_____	_____
C. Expected Return	_____	_____
1) Annual annuity: 12 times monthly annuity	_____	_____
2) Expected return multiples from Tables I and V	_____	_____
3) Expected return: C(1) times C(2)	_____	_____
D. Tax-Free Part of Annuity	_____	_____
1) Exclusion ratio, as a decimal rounded to 3 places: B(3) divided by C(3)	_____	_____
2) Tax-free part of annuity: C(1) times D(1)	_____	_____

Worksheet II

For Determining Taxable Annuity Under Regulations Section 1.72-6(d)(6)Election For Joint and Survivor Annuity

	Pre-July 1986	Post-June 1986
A. Refund Feature Adjustment	_____	_____
1) Net cost (total cost less returned premiums, dividends, etc.)	_____	_____
2) Annual annuity allocation: Portion of net cost in A(1) X retiree's annual annuity / Net cost	_____	_____
3) Guaranteed under the contract	_____	_____
4) Number of years guaranteed, rounded to whole years: A(3) divided by A(2)	_____	_____
5) Applicable percentages*	_____	
*If your annuity meets the three conditions listed in *Zero value of refund feature* in *Investment in the Contract,* earlier, both percentages are 0. If not, the IRS will calculate the refund feature percentage.		
6) Refund feature adjustment: A(5) times less of A(1) or A(3)	_____	_____
B. Investment in the Contract	_____	_____
1) Net cost: A(1)	_____	_____
2) Refund feature adjustment: A(6)	_____	_____
3) Investment in the contract adjusted for refund feature: B(1) minus B(2)	_____	_____
C Expected Return	_____	_____
1) Multiples for both annuitants, Tables II and VI	_____	_____
2) Multiple for retiree. Tables I and V	_____	_____
3) Multiple for survivor: C(1) minus C(2)	_____	_____
4) Annual annuity to survivor: 12 times potential monthly rate for survivor	_____	_____
5) Expected return for survivor: C(3) times C(4)	_____	_____
6) Annual annuity to retiree: 12 times monthly rate for retiree	_____	_____
7) Expected return for retiree: C(2) times C(6)	_____	_____
8) Total expected return: C(5) plus C(7)	_____	_____
D. Tax-Free Part of Annuity	_____	_____
1) Exclusion ratio, as a decimal rounded to 3 places: B(3) divided by C(8)	_____	_____
2) Retiree's tax-free part of annuity: C(6) times D(1)	_____	_____
3) Survivor's tax-free part of annuity, if surviving after death of retiree: C(4) times D(1)	_____	_____

ACTUARIAL TABLES

Table I (One Life) applies to all ages. Tables II–IV apply to males ages 35 to 90 and females ages 40 to 95.

Table I.—Ordinary Life Annuities—One Life—Expected Return Multiples

Ages		Multiples	Ages		Multiples	Ages		Multiples
Male	Female		Male	Female		Male	Female	
6	11	65.0	41	46	33.0	76	81	9.1
7	12	64.1	42	47	32.1	77	82	8.7
8	13	63.2	43	48	31.2	78	83	8.3
9	14	62.3	44	49	30.4	79	84	7.8
10	15	61.4	45	50	29.6	80	85	7.5
11	16	60.4	46	51	28.7	81	86	7.1
12	17	59.5	47	52	27.9	82	87	6.7
13	18	58.6	48	53	27.1	83	88	6.3
14	19	57.7	49	54	26.3	84	89	6.0
15	20	56.7	50	55	25.5	85	90	5.7
16	21	55.8	51	56	24.7	86	91	5.4
17	22	54.9	52	57	24.0	87	92	5.1
18	23	53.9	53	58	23.2	88	93	4.8
19	24	53.0	54	59	22.4	89	94	4.5
20	25	52.1	55	60	21.7	90	95	4.2
21	26	51.1	56	61	21.0	91	96	4.0
22	27	50.2	57	62	20.3	92	97	3.7
23	28	49.3	58	63	19.6	93	98	3.5
24	29	48.3	59	64	18.9	94	99	3.3
25	30	47.4	60	65	18.2	95	100	3.1
26	31	46.5	61	66	17.5	96	101	2.9
27	32	45.6	62	67	16.9	97	102	2.7
28	33	44.6	63	68	16.2	98	103	2.5
29	34	43.7	64	69	15.6	99	104	2.3
30	35	42.8	65	70	15.0	100	105	2.1
31	36	41.9	66	71	14.4	101	106	1.9
32	37	41.0	67	72	13.8	102	107	1.7
33	38	40.0	68	73	13.2	103	108	1.5
34	39	39.1	69	74	12.6	104	109	1.3
35	40	38.2	70	75	12.1	105	110	1.2
						106	111	1.0
36	41	37.3	71	76	11.6	107	112	.8
37	42	36.5	72	77	11.0	108	113	.7
38	43	35.6	73	78	10.5	109	114	.6
39	44	34.7	74	79	10.1	110	115	.5
40	45	33.8	75	80	9.6	111	116	0

Adjustments to Tables I, II, V, VI and VIA. Payments Made Quarterly, Semiannually, or Annually
Number of whole months from annuity starting date to first payment date

Payments to be made:	0-1	2	3	4	5	6	7	8	9	10	11	12
Annually	+.5	+.4	+.3	+.2	+.1	0	0	-.1	-.2	-.3	-.4	-.5
Semiannually	+.2	+.1	0	0	-.1	-.2						
Quarterly	+.1	0	-.1									

Table II.—Ordinary Joint Life and Last Survivor Annuities—Two Lives—Expected Return Multiples

Ages														
	Male	35	36	37	38	39	40	41	42	43	44	45	46	47
Male	Female	40	41	42	43	44	45	46	47	48	49	50	51	52
35	40	46.2	45.7	45.3	44.8	44.4	44.0	43.6	43.3	43.0	42.6	42.3	42.0	41.8
36	41	45.7	45.2	44.8	44.3	43.9	43.5	43.1	42.7	42.3	42.0	10.7	41.4	41.1
37	42	45.3	44.8	44.3.	43.8	43.4	42.9	42.5	42.1	41.8	41.4	41.1	40.7	40.4
38	43	44.8	44.3	43.8	43.3	42.9	42.4	42.0	41.6	41.2	40.8	40.5	40.1	39.8
39	44	44.4	43.9	43.4	42.9	42.4	41.9	41.5	41.0	40.6	40.2	39.9	39.5	39.2
40	45	44.0	43.5	42.9	42.4	41.9	41.4	41.0	40.5	40.1	39.7	39.3	38.9	38.6
41	46	43.6	43.1	42.5	42.0	41.5	41.0	40.6	40.0	39.6	39.2	38.8	38.4	38.0
42	47	43.3	42.7	42.1	41.6	41.0	40.5	40.0	39.6	39.1	38.7	38.2	37.8	37.5
43	48	43.0	42.3	10.8	41.2	40.6	40.1	39.6	39.1	38.6	.8.2	37.7	37.3	36.9
44	49	42.6	42.0	41.4	40.8	40.2	39.7	39.2	38.7	38.2	37.7	'37.2	36.8	36.4
45	50	42.3	41.7	41.1	40.5	39.9	39.3	38.8	38.2	37.7	.7.2	36.8	36.3	35.9
46	51	42.0	41.4	40.7	40.1	39.5	38.9	38.4	37.8	37.3	36.8	36.3	35.9	35.4
47	52	41.8	41.1	40.4	39.8	39.2	38.6	38.0	37.5	36.9	36.4	35.9	35.4	35.0
Ages														
	Male	48	49	50	51	52	53	54	55	56	57	58	59	60
Male	Female	53	54	55	56	57	58	59	60	61	62	63	64	65
35	40	41.5	41.3	41.0	30.8	40.6	40.4	40.3	40.1	40.0	39.8	39.7	39.6	3935
36	41	40.8	40.6	4023	40.1	39.9	39.7	39.5	39.3	39.2	39.0	38.9	38.8	38.6
37	42	40.2	39.9	39.6	39.4	39.2	39.0	38.8	38.6	38.4	38.3	38.1	38.0	37.9
38	43	39.5	39.2	39.0	38.7	38.5	38.3	38.1	37.9	37.7	37.5	37.3	37.2	37.1
39	44	38.9	38.6	38.3	38.0	37.8	37.6	37.3	37.1	36.9	36.8	36.6	36.4	36.3
40	45	38.3	38.0	37.7	37.4	37.1	36.9	36.6	36.4	36.2	36.0	35.9	35.7	35.5
41	46	37.7	37.3	37.0	36.7	36.5	36.2	36.0	35.7	35.5	35.3	35.1	35.0	34.8
42	47	37.1	36.8	36.4	36.1	35.8	35.6	35.3	35.1	34.8	34.6	34.4	34.2	34.1
43	48	36.5	36.2	35.8	35.5	35.2	34.9	34.7	34.4	34.2	33.9	33.7	33.5	33.3
44	49	36.0	35.6	35.3	34.9	34.6	34.3	34.0	33.8	33.5	33.3	33.0	32.8	32.6
45	50	35.5	35.1	34.7	34.4	34.0	33.7	33.4	33.1	32.9	32.6	32.4	32.2	31.9
46	51	35.0	34.6	34.2	33.8	33.5	33.1	32.8	32.5	32.2	32.0	31.7	31.5	31.3
47	52	34.5	34.1	33.7	33.3	32.9	32.6	32.2	31.9	31.6	31.4	31.1	30.9	30.6
48	53	34.0	33.6	33.2	32.8	32.4	32.0	31.7	31.4	31.1	30.8	30.5	30.2	30.0
49	54	33.6	33.1	32.7	32.3	31.9	31.5	31.2	30.8	30.5	30.2	29.9	29.6	29.4
50	55	33.2	32.7	32.3	31.8	31.4	31.0	30.6	30.3	29.9	29.6	29.3	29.0	28.8
51	56	32.8	32.3	31.8	31.4	30.9	30.5	30.1	29.8	29.4	29.1	28.8	28.5	28.2
52	57	32.4	31.9	31.4	30.9	30.5	30.1	29.7	29.3	28.9	28.6	28.2	27.9	27.6
53	58	32.0	31.5	31.0	30.5	30.1	29.6	29.2	28.8	28.4	28.1	27.7	27.4	27.1
54	59	31.7	31.2	30.6	30.1	29.7	29.2	28.8	28.3	27.9	27.6	27.2	26.9	26.5
55	60	31.4	30.8	30.3	29.8	29.3	28.8	28.3	27.9	27.5	27.1	26.7	26.4	26.0
56	61	31.1	30.5	29.9	29.4	28.9	28.4	27.9	27.5	27.1	26.7	26.3	25.9	25.5
57	62	30.8	30.2	29.6	29.1	28.6	28.1	27.6	27.1	26.7	26.2	25.8	25.4	25.1
58	63	30.5	29.9	29.3	28.8	28.2	27.7	27.2	26.7	26.3	25.8	25.4	25.0	24.6
59	64	30.2	29.6	29.0	28.5	27.9	27.4	26.9	26.4	25.9	25.4	25.0	24.6	24.2
60	65	30.0	29.4	28.8	28.2	27.6	27.1	26.5	26.0	25.5	25.1	24.6	24.2	23.8

Table II.—Ordinary Joint Life and Last Survivor Annuities—Two Lives—Expected Return Multiples Cont.														
Ages														
	Male	61	62	63	64	65	66	67	68	69	70	71	72	73
Male	Female	66	67	68	69	70	71	72	73	74	75	76	77	78
35	40	39.4	39.3	39.2	39.1	39.0	38.9	38.9	38.8	38.8	38.7	38.7	38.6	38.6
36	41	38.5	38.4	38.3	39.0	38.2	38.1	38.0	38.0	37.9	37.9	37.8	37.8	37.7
37	42	37.7	37.6	37.5	38.2	37.3	37.3	37.2	37.1	37.1	37.0	36.9	36.9	36.9
38	43	36.9	36.8	36.7	37.3	36.5	36.4	36.4	36.3	36.2	36.2	36.1	36.0	36.0
39	44	36.2	36.0	35.9	36.5	35.7	35.6	35.5	35.5	35.4	35.3	35.3	35.2	35.2
40	45	35.4	35.3	35.1	35.7	34.9	34.8	34.7	34.6	34.6	34.5	34.4	34.4	34.3
41	46	35.6	34.5	34.4	34.2	34.1	34.0	33.9	33.8	33.8	33.7	33.6	33.5	33.5
42	47	33.9	33.7	33.6	33.5	33.4	33.2	33.1	33.9	33.0	32.9	32.8	32.7	32.7
43	48	33.2	33.0	32.9	32.7	32.6	32.5	32.4	32.3	32.2	32.1	32.0	31.9	31.9
44	49	32.5	32.3	32.1	32.0	31.8	31.7	31.6	31.5	31.4	31.3	31.2	31.1	31.1
45	50	31.8	31.6	31.4	31.3	31.1	31.0	30.8	30.7	30.6	30.5	30.4	30.4	30.3
46	51	31.1	30.9	20.7	30.5	20.4	30.2	30.1	30.0	29.9	29.8	29.7	29.6	29.5
47	52	30.4	30.2	30.0	29.8	29.7	29.5	29.4	29.3	29.1	29.0	28.9	28.8	28.7
48	53	29.8	29.5	29.3	29.2	29.0	28.8	28.7	28.5	28.4	28.3	28.2	28.1	28.0
49	54	29.1	28.9	28.7	28.5	28.3	28.1	28.0	27.8	27.4	27.6	27.5	27.4	27.3
50	55	28.5	28.3	28.1	27.8	27.6	27.5	27.3	27.1	27.0	26.9	26.7	26.6	26.5
51	56	27.9	27.7	27.4	27.2	27.0	26.8	26.6	26.5	26.3	26.2	26.0	25.9	25.8
52	57	27.3	27.1	26.8	26.6	26.4	26.2	26.0	25.8	25.7	25.5	25.4	25.2	25.1
53	58	26.8	26.5	26.2	26.0	25.8	25.6	25.4	25.2	25.0	24.8	24.7	24.6	24.4
54	59	26.2	25.9	25.7	25.4	25.2	25.0	24.7	24.6	24.4	24.2	24.0	23.9	23.8
55	60	25.7	25.4	25.1	24.9	24.6	24.4	24.1	23.9	23.8	23.6	23.4	23.3	23.1
56	61	25.2	24.9	24.6	24.3	24.1	23.8	23.6	23.4	23.2	23.0	22.8	22.6	22.5
57	62	24.7	24.4	24.1	23.8	23.5	23.3	23.0	22.8	22.6	22.4	22.2	22.0	21.9
58	63	24.3	23.9	23.6	23.3	23.0	22.7	22.5	22.2	22.0	21.8	21.6	21.4	21.3
59	64	23.8	23.5	23.1	22.8	22.5	22.2	21.9	21.7	21.5	21.2	21.0	20.9	20.7
60	65	23.4	23.0	22.7	22.3	22.0	21.7	21.4	21.2	20.9	20.7	20.5	20.3	20.1
61	66	23.0	22.6	22.2	21.9	21.6	21.3	21.0	20.7	20.4	20.2	20.0	19.8	19.6
62	67	22.6	22.2	21.8	21.5	21.1	20.8	20.5	20.2	19.9	19.7	19.5	19.2	19.0
63	68	22.2	21.8	21.4	21.1	20.7	20.4	20.1	19.8	19.5	19.2	19.0	18.7	18.5
64	69	21.9	21.5	21.1	20.7	20.3	20.0	19.6	19.3	19.0	18.7	18.5	18.2	18.0
65	70	21.6	21.1	20.7	20.3	19.9	19.6	19.2	18.9	18.6	18.2	18.0	17.8	17.5
66	71	21.3	20.8	20.4	20.0	19.6	19.2	18.8	18.5	18.2	17.9	17.6	17.3	17.1
67	72	21.0	20.5	20.1	19.6	19.2	18.8	18.5	18.1	17.8	17.5	17.2	16.9	16.7
68	73	20.7	20.2	19.8	19.3	18.9	18.5	18.1	17.8	17.4	17.1	16.8	16.5	16.2
69	74	20.4	\19.9	19.5	19.0	18.6	18.2	17.8	17.4	17.1	16.7	16.4	16.1	15.8
70	75	20.2	19.7	19.2	18.7	18.3	17.9	17.5	17.1	16.7	16.4	16.1	15.8	15.5
71	76	20.0	19.5	19.0	18.5	18.0	17.6	17.2	16.8	16.4	16.1	15.7	15.4	15.1
72	77	19.8	19.2	18.7	18.2	17.8	17.3	16.9	16.5	16.1	15.8	15.4	15.1	14.8
73	78	19.6	19.0	18.5	18.0	17.5	17.1	16.7	16.2	15.8	15.5	15.1	14.8	14.4

Table II.—Ordinary Joint Life and Last Survivor Annuities—Two Lives—Expected Return Multiples- Cont.														
Ages														
	Male	74	75	76	77	78	79	80	81	82	83	84	85	
Male	Female	79	80	81	82	83	84	85	86	87	88	89	90	
35	40	38.6	38.5	38.5	38.5	38.4	38.4	38.4	38.4	38.4	38.4	38.3	38.3	
36	41	37.7	27.6	37.6	37.6	37.6	37.5	37.5	37.5	37.5	37.5	37.5	37.4	
37	42	36.8	36.8	36.7	36.7	36.7	36.7	36.6	36.6	36.6	36.6	36.6	36.6	
38	43	36.0	35.9	35.9	35.9	35.8	35.8	35.8	35.8	35.7	35.7	35.7	35.7	
39	44	35.1	35.1	35.0	35.0	35.0	34.9	34.9	34.9	34.9	34.8	34.8	34.8	
40	45	34.3	34.2	34.2	34.1	34.1	34.1	34.1	34.0	34.0	34.0	34.0	34.0	
41	46	33.4	33.4	33.3	33.3	33.3	33.2	33.2	33.2	33.2	33.1	33.1	33.1	
42	47	32.6	32.6	32.5	32.5	32.4	32.4	32.4	32.3	32.3	32.3	32.3	32.3	
43	48	31.8	31.8	31.7	31/7	31.6	31.6	31.5	31.5	31.5	31.5	31.4	31.4	
44	49	31.0	30.9	30.9	30.8	30.8	30.8	30.7	30.7	30.7	30.6	30.6	30.6	
45	50	30.2	30.1	30.1	30.0	30.0	29.9	29.9	29.9	29.8	29.8	29.8	29.8	
46	51	29.4	29.4	29.3	29.2	29.2	29.2	29.1	29.1	29.0	29.0	29.0	28.9	
47	52	28.7	28.6	28.5	28.5	28.4	28.4	28.3	28.3	28.2	28.2	28.2	28.1	
48	53	27.9	27.8	27.8	27.7	27.6	27.6	27.5	27.5	27.5	27.4	27.4	27.4	
49	54	27.2	27.1	27.0	26.9	26.9	26.8	26.8	26.7	26.7	26.6	26.6	26.6	
50	55	26.4	26.3	26.3	26.2	26.1	26.1	26.0	26.0	25.9	25.9	25.8	25.8	
51	56	25.7	25.6	25.5	25.5	25.4	5.3	25.3	25.2	25.2	25.1	25.1	25.0	
52	57	25.0	24.9	24.8	24.7	24.7	24.6	24.5	24.5	24.4	24.4	24.3	24.3	
53	58	24.3	24.2	24.1	24.0	23.9	23.9	23.8	23.7	23.7	23.6	23.6	23.5	
54	59	23.6	23.5	23.4	23.3	23.2	23.2	23.1	23.0	23.0	22.9	22.9	22.8	
55	60	23.0	22.9	22.8	22.7	22.6	22.5	22.4	22.3	22.3	22.2	22.2	22.1	
56	61	22.3	22.2	22.1	22.0	21.9	21.8	21.7	21.6	21.6	21.5	21.5	21.4	
57	62	21.7	21.6	21.5	21.3	21.2	21.1	21.1	21.0	20.9	20.8	20.8	20.7	
58	63	21.1	21.0	20.8	20.7	20.6	20.5	20.4	20.3	20.2	20.2	20.1	20.0	
59	64	20.5	20.4	20.2	20.1	20.0	19.9	19.8	19.7	19.6	19.5	19.4	19.4	
60	65	19.9	19.8	19.6	19.5	19.4	19.3	19.1	19.0	19.0	18.9	18.8	18.7	
61	66	19.4	19.2	19.1	18.9	18.8	18.7	18.5	18.4	18.3	18.3	18.2	18.1	
62	67	18.8	18.7	18.5	18.3	18.2	18.1	18.0	17.8	17.7	17.7	17.6	17.5	
63	68	18.3	18.1	18.0	17.8	17.6	17.5	17.4	17.3	17.2	17.1	17.0	16.9	
64	69	17.8	17.6	17.4	17.3	17.1	17.0	16.8	16.7	16.6	16.5	16.4	16.3	
65	70	17.3	17.1	16.9	16.7	16.6	16.4	16.3	16.2	16.0	15.9	15.8	15.8	
66	71	16.9	16.6	16.4	16.3	16.1	15.9	15.8	15.6	15.5	15.4	15.3	15.2	
67	72	16.4	16.2	16.0	15.8	15.6	15.4	15.3	15.1	15.0	14.9	14.8	14.7	
68	73	16.0	15.7	15.5	15.3	15.1	15.0	14.8	14.6	14.5	14.4	14.3	14.2	
69	74	15.6	15.3	15.1	14.9	14.7	14.5	14.3	14.2	14.0	13.9	13.8	13.7	
70	75	15.2	14.9	14.7	14.5	14.3	14.1	13.9	13.7	13.6	13.4	13.3	13.2	
71	76	14.8	14.5	14.3	14.1	13.8	13.6	13.5	13.3	13.1	13.0	12.8	12.7	
72	77	14.5	14.2	13.9	13.7	13.5	13.2	13.0	12.9	12.7	12.5	12.4	12.3	
73	78	14.1	13.8	13.6	13.3	13.1	12.9	12.7	12.5	12.3	12.1	12.0	11.8	
74	79	13.8	13.5	13.2	13.0	12.7	12.5	12.3	12.1	11.9	11.7	11.6	11.4	
75	80	13.5	13.2	12.9	12.6	12.4	12.2	11.9	11.7	11.5	11.4	11.2	11.0	
76	81	13.2	12.9	12.6	12.3	12.1	11.8	11.6	11.4	11.2	11.0	10.8	10.7	
77	82	13.0	12.6	12.3	12.1	11.8	11.5	11.3	11.1	10.8	10.7	10.5	10.3	
78	83	12.7	12.4	12.1	11.8	11.5	11.2	11.0	10.7	10.5	10.3	10.1	10.0	
79	84	12.5	12.2	11.8	11.5	11.2	11.0	10.7	10.5	10.2	10.0	9.8	9.6	
80	85	12.3	11.9	11.6	11.3	11.0	10.7	10.4	10.2	10.0	9.7	9.5	9.3	
81	86	12.1	11.7	11.4	11.1	10.7	10.5	10.2	9.9	9.7	9.5	9.3	9.1	
82	87	11.9	11.5	11.2	10.8	10.5	10.2	10.0	9.7	9.4	9.2	9.0	8.8	
83	88	11.7	11.4	11.0	10.7	10.3	10.0	9.7	9.5	9.2	9.0	8.7	8.5	
84	89	11.5	11.2	10.8	10.5	10.0	9.8	9.5	9.3	9.0	8.7	8.5	8.3	
85	90	11.4	11.0	10.7	10.3	10.0	9.6	9.3	9.1	8.8	8.5	8.3	8.1	

Table II.—Ordinary Joint Life and Last Survivor Annuities—Two Lives—Expected Return Multiples- Cont.						
Ages						
	Male	86	87	88	89	90
Male	Female	91	92	93	94	95
35	40	38.3	38.3	38.3	38.3	38.3
36	41	37.4	37.4	37.4	37.4	37.4
37	42	36.5	36.5	36.5	36.5	36.5
38	43	35.7	35.7	35.6	35.6	35.6
39	44	34.8	34.8	34.8	34.8	34.8
40	45	33.9	33.9	33.9	33.9	33.9
41	46	33.1	33.1	33.1	33.0	33.0
42	47	32.2	32.2	32.2	32.2	32.2
43	48	31.4	31.4	31.4	31.4	31.3
44	49	30.6	30.5	30.5	30.5	30.5
45	50	29.7	29.7	29.7	29.7	29.7
46	51	38.9	28.9	28.9	28.9	28.9
47	52	28.1	28.1	28.1	28.1	28.0
48	53	27.3	27.3	27.3	27.3	27.2
49	54	26.5	26.5	26.5	26.5	26.5
50	55	25.8	25.7	25.7	25.7	25.7
51	56	25.0	25.0	24.9	24.9	24.9
52	57	24.3	24.2	24.2	24.2	24.1
53	58	23.5	23.5	23.4	23.4	23.4
54	59	22.8	22.7	22.7	22.7	22.7
55	60	22.1	22.0	22.0	22.0	21.9
56	61	21.4	21.3	21.3	21.3	21.2
57	62	20.7	20.6	20.6	20.6	20.5
58	63	20.0	19.9	19.9	19.9	19.8
59	64	19.3	19.3	19.2	19.2	19.2
60	65	18.7	18.6	18.6	18.5	18.5
61	66	18.1	18.0	17.9	17.9	17.9
62	67	17.4	17.4	17.3	17.3	17.2
63	68	16.8	16.8	16.7	16.7	16.6
64	69	16.2	16.2	16.1	16.1	16.0
65	70	15.7	15.6	15.5	15.5	15.4
66	71	15.1	15.0	15.0	14.9	14.8
67	72	14.6	14.5	14.4	14.4	14.3
68	73	14.1	14.0	13.9	13.8	13.8
69	74	13.6	13.5	13.4	13.3	13.2
70	75	13.1	13.0	12.9	12.8	12.7
71	76	12.6	12.5	12.4	12.3	12.2
72	77	12.1	12.0	11.9	11.8	11.8
73	78	11.7	11.6	11.5	11.4	11.3
74	79	11.3	11.2	11.1	11.0	10.9
75	80	10.9	10.8	10.7	10.5	105
76	81	10.5	10.4	10.3	10.2	10.1
77	82	10.2	10.0	9.9	9.8	9.7
78	83	9.8	9.7	9.5	9.4	9.3
79	84	9.5	9.3	9.2	9.1	8.9
80	85	9.2	9.0	8.9	8.7	8.6
81	86	8.9	8.7	8.6	8.4	8.3
82	87	8.6	8.4	8.3	8.1	8.0
83	88	8.3	8.2	8.0	7.9	7.7
84	89	8.2	7.9	7.8	7.6	7.5
86	91	7.7	7.5	7.3	7.1	7.0
87	92	7.5	7.3	7.1	6.9	6.8
88	93	7.3	7.1	6.9	6.7	6.6
89	94	7.1	6.9	6.7	6.5	6.4
90	95	7.0	6.8	6.6	6.4	6.2

Actuarial Table III through Table VIII are available online at the IRS website, www.IRS.gov

CHAPTER 7 ANNUITIES AND SOCIAL SECURTIY

Since its inception in 1935, Social Security has paid out more than $4 trillion in benefits. The system was created to provide Americans a floor for financial protection. Almost all employees, employers, and the self-employed are required to participate in the program. Today, things are different than they were back when the system was conceived. In 1997, a baby boomer turned 50 every eight seconds, and the average 65-year old could be expected to live much longer. For many years, Social Security took in more revenues than it paid out in benefits, and used some of the annual surplus to pay its current operating expenses. As the number of workers contributing decreases and the number of beneficiaries increases, that surplus will decrease with every passing year, until sometime in the 2030s-2040s, when it is predicted that benefits paid will exceed taxes collected. It is clear that change is on the horizon.

This chapter discusses the "importance of private annuities markets for the payout phase of personal retirement accounts, focusing on the interaction between regulatory design and market performance." The work introduces the issues and then proceeds to survey the current state of the private annuities market. The report, a product of the General Accounting Office, then evaluates the determinants of annuity prices, the presence of adverse selection in the annuity market, and how private annuities markets will function in a social security system with personal retirement accounts.

Meaning of Social Adequacy and Individual Equity

Social(ism) v. Annuity- Social Security doesn't work like an annuity. Annuities are structured to make payments based strictly on what you paid in, and unlike annuities, Social Security is social insurance. Social Security benefits are based on both "social adequacy" and "individual equity."

Social adequacy means that benefits provide at least a minimum "floor of protection" for workers. A worker with a family is presumed to have greater need for income replacement in case of retirement, death or disability than is a worker without a family. Also workers with relatively high earnings are presumed to be in a better position to help provide for their own financial risks than are workers with low earnings. Thus, Social Security provides relatively higher benefits, as a percentage of a worker's pre-retirement earnings, to those with low earnings. And workers with families get benefits for their dependents.
Individual equity means a worker's benefit amount is related to his or her earnings. Other things being equal, workers with higher earnings will receive higher benefit amounts, although the amounts they get will replace a smaller portion of earnings than benefits paid to low-income workers. For the average Joe, Social Security is a much better deal than private sector investing [that is why it is going broke]. Persons with low earnings records, who every year invested an amount equal to their SS payroll taxes, and their employer's matching SS taxes, would be hard pressed to find any form of investment that could earn more than they would be entitled to get under Social Security. To begin with, there's the question of what would happen if they guessed wrong about where to invest. But the biggest reason Social Security is a better deal for virtually everyone is that besides a pension the employee and his dependents are covered by Old Age Survivors and Disability Insurance benefits. These insurance

benefits are increased annually to hold their purchasing power as prices rise. Few private investment plans provide such an inflation guarantee.

Current Retirees Benefit Scheme

Although soon-to-be-retirees who paid the maximum payroll tax over their careers may find themselves roughly breaking even, the majority of retirees are coming out comfortably ahead. Low-income earners will continue to do so, while some average-and high-income earners will see an erosion in what their money is worth, by the middle of the 21st Century, where they may not break even. However most higher income earners have savings and other investments in addition their Social Security benefit income.
For example, an individual who retires this year at age 65 after paying the maximum SS payroll tax will get his or her money back in 10.5 years, if only the retiree's payroll taxes are counted. But it will take 25.6 years if the employer's taxes are also considered. (If the retiree is married to a non-contributing spouse, the couple will get their money back in 15 years.)
Moderate earners will do much better. A person retiring this year with average earnings, he or she will get money back in 7.9 years, if only the retiree's taxes are counted, and 18.5 years if both employer and employee taxes are considered. (It will take just 11 years, however, if the retiree has a noncontributing spouse.) These rates of return aren't unreasonable when life expectancy is taken into account. The average remaining lifetime is expected to be 15.3 years for males retiring at 65, and 19.1 years for females.

Future Retirees Benefit Scheme

Unquestionably, people retiring after 2012 will realize smaller returns than today's retirees, a development that's inevitable with the maturing of the system. Unmarried, maximum earners may actually get a negative return on their contributions. For example, a maximum-earning, single worker retiring at 66 in 2015 will need 47.1 years to get back his and his employer's taxes (compared to 25.3 years for a married retiree with a noncontributing spouse).
Moderate-income workers will do better. A single worker with average earnings retiring at 66 in 2015 will need 29 years to get back combined employee-employer taxes, while a couple with a noncontributing spouse retiring with average earnings will require 17.1 years.
The Congressional Budget Office (CBO) has released *Social Security Privatization and the Annuities Market,* a paper discussing the "importance of private annuities markets for the payout phase of personal retirement accounts, focusing on the interaction between regulatory design and market performance." The section introduces the issues and then proceeds to survey the current state of the private annuities market. The report then evaluates the determinants of annuity prices, the presence of adverse selection in the annuity market, and how private annuities markets will function in a social security system with personal retirement accounts.

PROLOGUE

[This report is from the Congressional Budget Office. The text for this section has been re-formatted from its original. It has been edited for content and modified to fit the book]

In anticipation of the retirement of the baby-boom generation, policymakers have been analyzing the financial pressures on Social Security and devising new ways Americans could prepare for retirement. Those proposals--loosely called "privatization"--would prefund retirement income in personal accounts that workers could invest in the

financial market and then spend down during retirement. This chapter discusses the importance of private annuities markets for the payout phase of personal retirement accounts, focusing on the interaction between regulatory design and market performance. It also describes current annuities markets and the reasons for market inefficiencies and contrasts annuities with Social Security's protection against longevity risk.

Social Security's long-term financing problem has fueled a debate about fundamentally changing the current system. Under the rubric of "privatization," advocates have devised many plans to divert a portion of the payroll tax into private retirement accounts. Within the regulatory framework of the new system, the owners of those accounts could then decide how to invest their funds.[33] Proponents of privatization have devoted most of their efforts to deciding how much should be accumulated in those accounts and how transition costs should be divided among current and future generations, while virtually ignoring how retirees will draw down the accumulated funds for use in old age.

Currently, most retirees receive an inflation-indexed life annuity from Social Security. If the beneficiary is married or has dependent children, Social Security also pays benefits to survivors. Many people also receive annuity payments from private pensions.[34] Annuities like Social Security provide insurance against longevity risk--that is, the risk of outliving personal resources. An annuity provides a stream of payments for an agreed-upon period of time; a life annuity provides payments for as long as the annuitant is alive and protects against longevity risk. The insurer (an insurance company or the government) absorbs the uncertainty about longevity and pools many annuitants. Since some annuitants live longer and others die earlier than expected, the annuity provider can protect each individual against life span uncertainty and be subject only to the uncertainty about the average life span of the population.

Without access to annuities, consumers must divide their resources according to their expectations about longevity after retirement. They may find themselves without sufficient resources if their actual life span exceeds what they had expected. For example, an individual who retires at age 65 with assets of $100,000 expecting to live 10 more years may decide to spend down savings in 10 equal installments. If the retiree lives to age 76, he or she would end up without any assets.

Proposals to change the existing system need to deal with whether private markets will be able to offer protection against longevity risk during retirement similar to what Social Security offers. In particular, will retirees be able to convert their private account balances into annuities at fair prices? If not, some of the long-run gains attributed to prefunding retirement consumption may be diminished.

Currently, private insurance companies offer annuities, but the market is small because of the existence of Social Security and private pensions, the unfavorable pricing of private annuities as a result of market imperfections, and the desire to leave assets to

33 Such plans include the "Personal Security Account Plan" of the last Advisory Council on Social Security, S. 821, introduced to the 104th Congress by Senator Kerrey and former Senator Simpson, as well as H.R. 3758, sponsored by Representative Nick Smith.

34 Alan L. Gustman, Olivia S. Mitchell, Andrew A. Samwick, and Thomas L. Steinmeier, Pension and Social Security Wealth in the Health and Retirement Study, Working Paper No. 5912 (Cambridge, Mass.: National Bureau of Economic Research, February 1997). The authors find that about half of the population between ages 51 and 61 receive private pensions or have accrued claims on private pensions. About two-thirds of total pension assets of the average household are promised future retirement payments from defined benefit plans.

heirs. This section addresses the implications of those issues and comes to the following conclusions:

- Private annuities are currently 15 percent to 25 percent more expensive than average mortality would suggest. That range reflects a combination of overhead costs and the longer-than-average life span of people who purchase annuities. Overhead costs and longer-than-average life spans each account for roughly half of the additional costs.
- Annuity prices would fall if reducing the value of Social Security's annuity put more people into the annuities market. That outcome could lower both overhead costs and the share of annuitants with longer-than-average life expectancy. Furthermore, a growing annuities market could increase the variety of annuity products and better adjust those products to consumers' demand.

However, some factors could hinder the functioning of the private annuities market: adverse selection, high marketing costs, myopic behavior by consumers, and the existence of a social safety net. Although government oversight of annuities markets and personal retirement accounts could address those problems and reduce the cost of annuities for society, policymakers would face trade-offs between balancing the gains from reducing social costs against the losses that arise from restricting individual choices.

THE CURRENT STATE OF THE MARKET FOR PRIVATE ANNUITIES

Financial markets provide a variety of annuities to groups and individuals. Group annuities cover a large number of people, often members of a defined benefit pension plan; individual annuities are purchased by individual customers who want to convert their assets into a stream of income payments. Over the past four decades, sales of individual annuities have outpaced those of group annuities. That development reflects the decline of defined benefit pensions as well as the expansion of the market for individual annuities, especially in the 1980s and 1990s.[35] This section concentrates on the cost of individual annuities.

A Classification of Individual Annuities

Individual annuities can be classified by five characteristics:

- The method of payment. Some annuities can be purchased with a single premium (single-premium annuities); others require a series of annual payments (fixed-annual-premium annuities, flexible-premium annuities).
- The number of people covered. Annuities can be purchased for an individual (individual annuity) or several people--for example, the annuitant and spouse or several family members (joint life annuities, joint and survivor annuities).
- The waiting period for benefits to begin. Annuity payments can begin immediately after the purchase of the annuity (immediate annuity), or the annuity can be deferred until a certain age is reached (deferred annuity).
- The nature of payouts. Life annuities provide income until the death of the annuitant. A fixed-payments-certain life annuity provides payments until the death of the annuitant and also guarantees a certain number of payments even if the annuitant dies early. Refund annuities return a portion of the premium should the annuitant die before a certain date. Finally, some annuities provide payments for an agreed-upon fixed period of time so that payments may end before the

35 See James M. Poterba, The History of Annuities in the United States, Working Paper No. 6001 (Cambridge, Mass.: National Bureau of Economic Research, April 1997).

death of the annuitant.

- The variability of payouts.[36] Annuity payouts can be fixed or variable. A fixed annuity guarantees a minimum payment. The market offers two types of fixed annuities: the "nonparticipating" fixed annuity disburses a constant stream of annuity payments; the "participating" fixed annuity provides a guaranteed minimum payment and additional dividend payments that depend on the performance of the insurance company's investment portfolio. Variable annuities also rise and fall with the performance of the annuity insurer's investment portfolio, but they do not guarantee a minimum payment.

Some purchasers consider annuities more as an investment than as insurance. Sales of variable annuities surged from roughly $12 billion in 1990, to $111 billion in 2001, and $236 billion in 2014. Usually, those annuity contracts combine investment in a mutual fund with several payout options: before retirement, an investor puts money away in the mutual fund; on or after retirement, the assets are converted into an annuity or withdrawn in a lump sum. The annuity payout of deferred variable annuity products can be either variable or fixed. Hence, the common use of the term "variable annuity" often reflects only the accumulation of funds in risky assets and not the variability of payouts after retirement. In this section variable annuity generally addresses the variability of payments after retirement.

Since sales of deferred variable annuities largely reflect the tax preferences those annuities receive during their accumulation, they are less useful in understanding the market for insuring against longevity risk. Indeed, most people who buy variable annuities do not value that insurance against longevity risk and instead withdraw their money in a lump sum or in a series of periodic payments.[37]

This section concentrates mostly on single-premium immediate annuities (SPIAs). In contrast to variable deferred annuity products, the market for SPIAs, which are generally fixed and nonparticipating annuities, remains small. In 1995, premium payments for SPIAs amounted to $6.2 billion, about 12 percent of the market for single-premium annuities.[38]

According to data of the Life Insurance Marketing Research Association International (LIMRA), most people who purchased a SPIA from any of 26 companies included in a survey chose an annuity for life (single-premium immediate life annuities, or SPILAs).[39] SPILAs closely parallel current Social Security annuity payments in all respects but one: they are not indexed for inflation. Therefore, prices for SPILAs most accurately reflect the cost of insurance against longevity risk at retirement, and the empirical evidence referred to in this section largely focuses on that payout option.

SPILAs offer several provisions for survivor benefits. Simple life annuities protect only the annuitant against life span uncertainty, and payments end at death. Joint life annuities protect the annuitant and a coannuitant (such as a spouse) against outliving their resources. Other annuities with survivor options continue to pay a percentage of the previous benefit after the death of the primary annuitant. A fixed-payments-certain

36 For a discussion of available options see Mark J. Warshawsky, "The Market for Individual Annuities and the Reform of Social Security," Benefits Quarterly (Third Quarter 1997), pp. 66-76.

37 "The Money Keeps Rolling In for Variable Annuities--But Tax Law Has Removed Some Luster," New York Times, January 11, 1998, p. 62.

38 Olivia S. Mitchell, James M. Poterba, and Mark J. Warshawsky, New Evidence on the Money's Worth of Individual Annuities, Working Paper No. 6002 (Cambridge, Mass.: National Bureau of Economic Research, April 1997).

39 Warshawsky, "The Market for Individual Annuities and the Reform of Social Security."

life annuity provides lifetime payments for the annuitant and guarantees periodic payments to beneficiaries if the annuitant dies before a certain date. Similarly, a refund annuity returns some of the premium to the annuitant's beneficiaries should he or she die before a certain date.

Among people covered by the Teachers Insurance and Annuity Association-College Retirement Equities Fund (TIAA-CREF)--the retirement saving system for employees of colleges and universities and largest private pension fund in the United States--74 percent of male annuitants chose a joint (two-life) annuity and 68 percent of women chose a single-life annuity. In 1994, 62 percent of all TIAA-CREF life annuitants decided to take a fixed and participating TIAA annuity that provides a minimum guaranteed benefit and also participates in the returns of TIAA's investment portfolio. (TIAA does not offer a fixed and nonparticipating annuity.) A large minority of 38 percent, however, preferred the variable CREF annuity, in which monthly payouts fluctuate with the performance of underlying securities and the mortality of CREF's annuitants.[40]

Why Is the Market for Single-Premium Immediate Life Annuities Small?

Analysts give a number of reasons for the small size of the market for single-premium immediate life annuities.

Unfavorable Prices. Prices for private annuities are high. As discussed in the next section, the behavior of annuitants increases premiums beyond what an average household may be willing to pay. In addition, the smaller the market, the larger the administrative costs per customer tend to be, and that overhead is tacked on to every annuity.

Much Wealth Is Already in Annuities. Many households already receive annuities from Social Security and private pensions. Recent calculations based on the data collected under the University of Michigan's Health and Retirement Study show that Social Security wealth--expected future Social Security benefits expressed in today's dollars--accounts for 27 percent of household net worth on average.[41] That estimate of household net worth includes the value of housing, pensions, and health insurance, but it excludes taxes paid on Social Security benefits. The percentage varies significantly among income groups, however: for low-income households, almost all wealth derives from expected Social Security benefits; for households with median income, Social Security accounts for 40 percent to 50 percent of wealth; and for high-income households, it accounts for only 10 percent to 15 percent of wealth.

In addition, private pension wealth accounts for 23 percent of the average household's assets, although the percentage also varies by income. Households at the top of the income distribution hold about 20 percent to 30 percent of their wealth in private pensions, median earners hold about 20 percent, and low earners hold 13 percent or less of their wealth in private pensions. On average, at least two-thirds of pension wealth is provided in the form of life annuities through defined benefit plans. Thus, the combined pension and Social Security wealth of low and median earners is largely annuitized. Clearly, such a large annuitization of resources reduces the incentive for people to convert their remaining assets into annuities, especially if they have other reasons for holding nonannuitized wealth. According to the Health and Retirement

40 Francis P. King, "Trends in the Selection of TIAA-CREF Life-Annuity Income Options, 1978-1994," TIAA-CREF Research Dialogues, Issue No. 48 (July 1996).

41Gustman and others, Pension and Social Security Wealth in the Health and Retirement Study, Table 3.

Study, a household with median income holds about 20 percent of its assets in housing.[42] Although a household could annuitize its housing wealth by selling the home and using the proceeds to purchase an annuity contract, many retirees are reluctant to do so. Owning a house provides both financial security (no need to pay rent out of current income) and the security of living in a familiar neighborhood.

As an alternative to selling and renting, households can take out a reverse mortgage. A reverse mortgage with tenure option provides monthly income to the homeowner as long as he or she stays in the home (Other reverse mortgages simply provide a line of credit and therefore serve mostly as a buffer for unexpected expenditures). Once the home is sold, the proceeds are used to repay the loan; if the proceeds exceed the value of the loan, the remainder goes to the homeowner or the estate. The market for reverse mortgages with tenure option is currently small, possibly for the same reasons that keep the private annuities market small.

Unanticipated Expenditures After Retirement. Expenditures may vary unexpectedly after retirement. For example, retirees may experience health problems that require high expenditures for medication or long-term care that are not covered by insurance. They may also want to be able to support their children in case of an adverse shock to the children's income. But because an annuity converts assets into a constant stream of income, the annuitants do not have a buffer stock for unexpectedly high expenditures once wealth is annuitized. To the extent that borrowing against future annuity income is impossible, the retiree may wish to keep a portion of assets in liquid funds as a safeguard against adverse health and income shocks.[43]

Bequest Motive and Intrafamily Risk Sharing. Retirees may wish to bequeath some of their savings at death. A bequest can be altruistically motivated, reflect the giver's pleasure in giving, or be used as a disciplining device with the threat of disinheritance. Despite considerable disagreement about the nature of bequest motives, scholars agree that the desire to leave some assets to others reduces the incentive to annuitize and increases the incentive to hold wealth in a form of financial assets and tangibles.

Moreover, the family itself may provide implicit annuity income. Through implicit or explicit agreements concerning consumption and intrafamily transfers, families can self-insure against uncertain death. For example, spouses may name each other as beneficiaries of their wills and decide together how much to spend each year. Such a joint decision reduces the risk of outliving resources for both spouses because it pools the resources of two individuals with different mortality prospects. If the spouse with higher expected mortality receives higher income, the couple may decide to save some of that income so that the surviving spouse can draw on those savings and is not forced to reduce spending. According to research by Laurence Kotlikoff and Avia Spivak, risk sharing between spouses may already provide around 50 percent of the risk reduction that a perfect annuities market could provide.[44] Moreover, the larger the number of family members in a risk-sharing arrangement, the closer the family comes to performing the function of a perfect annuities market. However, empirical evidence does not support full risk sharing within families.[45]

42 Ibid, tables 3, 14, 15, and 20

43 Wolfram F. Richter and Klaus Ritzberger, "Optimal Provision Against the Risk of Old Age," Finanzarchiv, vol. 52, no. 3 (1995), pp. 339-356.

44 Laurence J. Kotlikoff and Avia Spivak, "The Family as an Incomplete Annuities Market," Journal of Political Economy, vol. 89, no. 2 (1981), pp. 372-391.

45See Fumio Hayashi, Joseph Altonji, and Laurence J. Kotlikoff, "Risk-Sharing Between and Within Families," Econometrica, vol. 64, no. 2 (1996), pp. 261-294.

Inflation Risk. Unlike Social Security, annuities that are currently available in the private market may not protect against inflation risk. Private annuities pay a fixed nominal income (fixed and nonparticipating annuity), a variable income based on the performance of investments (variable annuity), or both (fixed and participating annuity). A fixed and nonparticipating nominal annuity clearly cannot protect against inflation, and its real value falls at a rate equal to the rate of inflation since the payout stays constant in nominal terms. TIAA offers a graded fixed and participating annuity that rises each year if the return on TIAA's portfolio exceeds 4 percent, thus protecting against inflation as long as the rate of inflation remains smaller than the annual benefit increase. The graded and participating fixed annuity was originally suggested by John H. Biggs, "Alternatives in Variable Annuity Benefit Design," *Transactions of the Society of Actuaries,* vol. 21 (1969), pp. 495-528. A discussion of the inflation protection of graded annuities can be found in Francis P. King, "The TIAA Graded Payment Method and the CPI," *TIAA-CREF Research Dialogues*, Issue No. 46 (December 1995).

However, the graded annuity does not eliminate the risk from unexpectedly high inflation. A variable annuity protects against inflation only to the extent that investment returns move in step with inflation. Inflation risk may become a smaller problem in the future, however: the Treasury recently began to issue five-year and 10-year inflation-indexed bonds that insurers can use to back inflation-indexed annuities. If the Treasury offered indexed bonds with additional maturities, insurers would be more willing to offer inflation-indexed annuities.

In response, CREF has added an inflation-indexed annuity to its portfolio.

THE DETERMINANTS OF ANNUITY PRICES

Prices for single-premium immediate annuities are affected by several factors: the rate of return the annuity company receives on its investment portfolio, its overhead costs, and the expected mortality of its annuitants. Prices also depend on the insurer's profits, which are determined by the structure and performance of the annuities market.

The Rate of Return

Annuity companies invest the premiums they receive from annuitants. The future flow of income from the investment combined with the principal is the source of income for the annuity payments. Depending on the insurer's expectations about the return on its investment portfolios, the company converts the premium into future payments. The annuity insurer can charge a lower premium for an annuity if it expects higher future returns on the investment portfolio.

The rate of return an insurance company receives on its investment portfolio is uncertain. Like any investor, an insurance company faces the trade-off between higher returns and higher risk. The annuity insurer can pass that risk on to the annuitant only with a variable annuity. However, most single-premium immediate life annuities sold are fixed annuities. Because the insurance company bears the risk of that investment, it may choose to invest conservatively to make sure it can always meet its obligations. Indeed, fixed annuities are backed by general accounts of life insurance companies, which are mostly invested in corporate bonds, commercial mortgages, and real estate. Those conservative investment strategies also reflect regulatory requirements concerning the liquidity of life insurance and annuity companies.

Overhead Costs

The insurance company also incurs overhead costs: it sets up accounts for the individual annuitants and keeps track of the amounts paid out; it also manages the assets of the company, hires people with the appropriate experience (or pays an outside firm), and pays taxes on profits. Furthermore, the annuity insurer provides customer service and markets its products. Marketing costs can be substantial since annuities constitute a relatively complicated product with a large number of options, generally requiring contracting with commissioned agents to explain and sell annuity products. An insurance agent's advice may be valuable for the customer's retirement planning, and the customer may therefore perceive a portion of the commission as compensation for the agent's services rather than as a cost of the annuity. For example, the state of New York mandates that marketing costs including commissions not exceed 7% of the annuity premium for licensed insurance companies.

Mortality

In order to assess its expected future liabilities, the annuity company must evaluate how many annuitants will be alive at each future year. Over the life of an annuity contract, the chance that the annuitant will die increases, which decreases the expected liability for the insurance company. In calculating the expected future obligations from an annuity contract, the insurer puts a higher weight on payments in the near future than on those in the distant future. Those weights are determined by the estimated probability that the annuitant survives to that particular point in time.

The insurance company can offer a higher rate of return on annuities than it expects to receive on its investment portfolio, net of overhead costs, because some annuitants die early. Since the obligation of the insurer ends at death (unless the annuity provides a fixed-payments-certain payoff or has a refund provision), the insurance company can redistribute the premiums from those annuitants who die to those who survive. For example, if the average overall mortality rate of annuitants over a 30-year horizon is 25 percent, and the rate of return is 5 percent per year, the annuity company can offer a rate of return of 6 percent per year **(see Box 1)**.

BOX 1.
MORTALITY, THE RATE OF RETURN, AND ADVERSE SELECTION

A numerical example can illustrate how mortality, the rate of return of an annuity, and the effect of adverse selection are related.

Rate of Return

Suppose the annuity pool consists of 200 people. For simplicity, assume that they live in two periods (representing 30 years each). During the first period, they work and save $100,000; during the second period, they retire and consume their savings and interest. Everyone has a 25 percent chance of dying at the beginning of retirement. Assume the interest rate in this economy is 5 percent per year, or 330 percent (1.05^{30}-1) for a 30-year period. Thus, everyone will retire with $430,000 in savings, and if a particular individual survives, he or she can consume $430,000. However, if he or she dies at the beginning of retirement, savings are transferred to the heirs.

If people do not wish to leave bequests, they could purchase an annuity with their savings. If they purchase an annuity for $100,000, the annuity company could offer a payment of $573,333 to annuitants should they survive. That payment reflects a rate of return of 6 percent per year (or 470 percent for 30 years) and exceeds the interest rate of 5 percent. Why $573,333? The annuity company collects a total of $20 million from annuitants and receives interest of $66 million. The annuity company knows that, on average, only 75 percent of annuitants will survive. Thus, it can offer $573,333 to each of the 200 annuitants, figuring only 150 of them will actually collect the money.

Expressed differently, the resources of the annuitants who die are distributed to the surviving annuitants rather than to the heirs. The advantage for the annuitants is clear: they can achieve a higher retirement income with the same savings (or the same retirement income with lower savings) if they decide to purchase an annuity and pool their longevity risk.

Adverse Selection

Suppose that the pool of annuitants contains 100 people with a survival probability of 90 percent and 100 people with a survival probability of 60 percent instead of 200 people with a survival probability of 75 percent. The annuity company cannot distinguish the different types. If both types of people purchase an annuity of $100,000, the outcome is the same as above since *on average* 150 out of 200 annuitants survive.

However, those with a survival probability of 60 percent may feel that buying an annuity is a bad deal since they have a 40 percent chance of never receiving any payments. Therefore, they reduce their annuity demand from $100,000 to $50,000, say, and the annuity company collects $15 million. Since two-thirds of annuity payments out of the $15 million plus interest go to those with high-survival probabilities, the annuity company cannot afford to offer a payout of $573,333 for a $100,000 premium anymore. Instead, it will offer $537,500 for a $100,000 premium and $268,750 for a $50,000 premium, because the average dollar received now has an 80 percent chance [(100 x 0.9 + 50 x 0.6)/150] of coming from a survivor rather than a 75 percent chance as in the example above. As a result, adverse selection reduces the annuity payment per premium dollar.

Although annuity companies do not face a longevity risk from any particular annuitant, they still face the uncertainty of a future decline in overall mortality. The losses of annuity insurers in the late 1930s stemmed largely from errors in forecasting future trends in mortality. In projecting future mortality rates, an annuity company faces considerable uncertainty. It may therefore choose to be cautious and assume that mortality rates may decline somewhat faster than they have in the past. A faster decline in mortality implies that annuitants will live longer on average and the insurer will face higher costs.

Only one particular annuity, the variable CREF annuity, passes on the aggregate mortality risk to annuitants by varying the annuity payouts with the mortality experience of the annuitant pool. CREF annuities can currently be purchased only by CREF members since most state laws prohibit or limit the sale of an annuity that passes the aggregate demographic risk to non-CREF members.

Adverse Selection and Moral Hazard. People who buy individual annuities tend to live longer than average, and that affects the annuity market. Consider what would happen if an annuity company promised annuity payments based on the average mortality of the entire population. Such an annuity contract would be very attractive to potential annuitants who expect to live longer than average. But people who expect to have shorter lives than average would find an annuity based on average mortality to be unfavorably priced. As a consequence, longer-lived individuals would probably annuitize more of their wealth than shorter-lived individuals, and some individuals with short life expectancy might decide not to buy annuities at all. As a result, the insurance company would raise its premiums per dollar of annuity payout to avoid losses. In turn, higher premiums would increase the incentive for people with short life expectancy to reduce their demand for annuities or drop out of the annuities market altogether. In the extreme, the market could shut down entirely. The effect of having high-risk types (people with long lives) drive out low-risk types (people with short lives) from insurance markets has been called adverse selection **(see Box 1)**.

Adverse selection can arise only if the potential annuitant has more information about his or her survival prospects than the insurance company does. If the insurance company knew how long a prospective customer expected to live, it could issue an annuity based on the annuitant's specific survival prospects. Someone with short life expectancy would be offered a low price; someone with long life expectancy would be offered a high price. In reality, the insurance company has limited means to assess the specific survival prospects of its customers.

The difficulty of separating the annuity market by risk types stems from two sources: the lack of observable characteristics that are tied to longevity, and government regulation that prevents insurers from gathering and using such information. Personal characteristics, like health habits and family disposition for diseases, may be difficult to assess or verify. An annuity insurer may conduct health screenings, as is commonly done by life insurance companies, but may be restricted by law from using observable characteristics to assess survival prospects. For example, insurers are not allowed to differentiate subscribers to group annuities by sex, although, with the exception of TIAA-CREF, they do differentiate individual annuity holders by sex.

Separating the annuities market into risk classes may be more difficult than in the life

insurance market because the incentives of the insurer and the insured work in opposite directions. In the life insurance market, both the insurance company and the insured individual want the insured to live a long and healthy life. By contrast, an annuity insurer would like the insured to die early. To the extent that changes in lifestyle can affect longevity in the short-to-medium run, the annuitant might change his or her habits and live longer than previously expected by the insurer. Such a change in behavior after the sale is called moral hazard. Healthy annuity applicants seeking lower rates could also cheat by claiming they had unhealthful habits, such as smoking, to receive a better rate.

Annuity insurers also cannot entice people to reveal their longevity prospects by simply offering annuities of different sizes. According to economic theory, insurers with imperfect information about potential customers can entice both good-risk and bad-risk customers to reveal their type and choose contracts of different sizes if they can successfully restrict the overall insurance coverage.[46] In that case, both risk types receive insurance at an actuarially fair price, but the bad-risk customer cannot buy as much insurance as desired. However, annuity insurers cannot easily limit the size of the overall annuity insurance (potentially from different insurers) sold to a specific person. The insurer could offer both a small monthly annuity payment with a low premium per dollar of payout and a large annuity payment with a high premium per dollar of payout, but nothing would force people with long life expectancy to buy the large and expensive annuity. Instead, those people could buy several of the cheaper annuities. In other insurance markets, most prominently the health insurance market, companies offer a menu of different contracts that differ by the extent of insurance coverage and copayments. Health insurers can thus limit the extent of insurance coverage and devise insurance schemes that split the market into separate risk pools.

Annuity companies may still be able to segment the annuities market somewhat by offering annuity contracts that differ in reversibility. For example, if people want to leave money to their heirs, those with shorter life expectancy may find annuities with refund options or fixed-payments-certain more appealing. People with longer life expectancy are less willing to accept a lower annuity payment in exchange for the refund and as a result may choose life annuities without refunds. Currently, almost all life annuitants choose a refund option, thereby limiting effective market segmentation.
Annuity insurers also cannot provide any incentives that entice people to behave in the insurers' favor. Other insurance contracts, like health or fire insurance, require copayments of the insured to avoid moral hazard. If a catastrophe occurs, the insurance company does not finance the full cost of the damage; instead, the insured are required to bear a certain percentage of the cost. Also, if the terms of the contract are violated, the insurer may withhold compensation altogether. Such arrangements increase the incentive of the insured to reduce the risk of damage. However, those kinds of incentives do not work for annuity insurance because the insurer cannot entice the insured to die early or live recklessly.

Annuity Costs and the Correlation Between Longevity and Income. Annuity insurance costs increase as people with higher incomes and higher life expectancy buy larger annuities than households with lower income. If longevity also rises with income, the average annuity payment is made to people with above-average longevity prospects. As a consequence, premiums for annuities must be higher than they would

46 Michael Rothschild and Joseph Stiglitz, "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information," Quarterly Journal of Economics, vol. 90, no. 3 (1976), pp. 629-649.

otherwise be, or the insurer will not be able to earn a competitive return. To some extent, that effect may be offset by smaller administrative costs for the larger annuities that higher-income people demand.

Market Structure

Observable annuity prices also depend on the structure of the annuities market. If the annuities market is highly competitive, annuity companies do not have the market power to extract higher-than-normal profits from selling annuities. However, if the annuities market is dominated by a relatively small number of firms, profits and prices tend to be higher. The exact effect depends on the cost to new firms of entering the market and on the pricing strategies of existing firms.

According to the A.M. Best survey of more than 100 companies, annuity companies charged markedly different prices for the same annuity payment in 1996.[47] A $100,000 premium buys a monthly annuity for a 65-year-old male that can range from $653 to $856. However, the survey shows larger disparities in annuity premiums than real-time quotes do. CANNEX Financial Exchanges, a company that provides online real-time quotes for annuities sold in Canada, reports only a roughly 4 percent difference between the best and worst monthly payout per C$50,000.[48] Even that difference could be considered large for identical products. Analysts still do not know whether those price differences exist because of limited competition, lack of information among customers, differences in risk-taking behavior of annuity companies, or because the market is still very small.

EMPIRICAL EVIDENCE ON ANNUITY PRICES AND ADVERSE SELECTION

The previous discussion about the determinants of annuity prices raises a number of empirical questions. First, do individuals have a better idea about their own survival prospects than an insurance company does? As described above, adverse selection arises when potential annuitants have private information about their survival prospects. Second, what portion of today's annuity prices can be explained by differences between the mortality of annuitants and that of the general population? That is, how important is adverse selection? Third, do people with higher income live longer than those with lower income? If longer-lived people were also wealthier, annuities would be more expensive than average mortality suggests, even in the absence of adverse selection.

Private Information About Mortality Rates

The empirical evidence from two studies suggests that individuals can predict their own survival prospects with some accuracy. Daniel Hamermesh conducted a survey of 410 economists and 363 residents of a metropolitan area in the Midwest.[49] His survey asked respondents to assess their own survival probability. Hamermesh found that self-assessed survival probabilities are correlated with forebears' longevity as well as with smoking habits and illness. Agents' responses are also roughly consistent with life tables.

Recent results from the first wave of the Health and Retirement Study (HRS) support

47 A.M. Best Company, Best's Policy Reports, Single Premium Immediate Annuities, Special Edition: 1997 (Oldwick, N.J.: 1997).

48 See Moshe Arye Milevsky, "Optimal Asset Allocation Towards the End of the Life Cycle: To Annuitize or Not to Annuitize" (working paper, York University, July 1997). Some of the CANNEX data are accessible on the Internet at (http://www.cannex.com/ canada/ rates/ anty.html).

49 See Daniel S. Hamermesh, "Expectations, Life Expectancy, and Economic Behavior," Quarterly Journal of Economics, vol. 99, no. 2 (1985), pp. 389-408.

Hamermesh's findings. A study by Michael Hurd and Kathleen McGarry uses a question in the HRS that asked respondents to evaluate their chances to live to age 75 and age 85.[50] The authors conclude that the implicit subjective probabilities are generally internally consistent and vary systematically with socioeconomic and behavioral variables such as education, income, and smoking. Those variables are good predictors for actual outcomes. In a separate study, Hurd and McGarry found evidence from the second wave of the Health and Retirement Study indicating that individuals who did not expect to live long had a higher probability of dying between the first two waves of the survey.

Overall, the studies have two important implications: people are able to form consistent expectations about their life span, and their expectations are based on relevant information available to them but not necessarily to insurance companies.

Evidence for Adverse Selection in the Annuities Market

Three studies provide direct evidence for adverse selection in the annuities market for fixed and nonparticipating single-premium immediate life annuities. Those studies measure adverse selection by deriving the expected present value of annuity payments based on the average mortality of the overall population and comparing that estimate to the actual prices observed in the annuities market. The present value is a single number that expresses a flow of current and future income in terms of an equivalent lump sum received today. Because future payments are made only if the annuitant survives, the present value is expressed in expectations: each annual payment in the future must be discounted with a factor that reflects a combination of the interest rate and the probability that the annuitant will have died in that future year.

The studies separate the effect of overhead and other costs from the impact of adverse selection by calculating the expected present value of an annuity using the mortality experience of people who actually buy them. Comparing that value with the expected present value calculated for the overall population indicates the extent to which the particular mortality characteristics of annuitants increase the price of annuities. As a result, the cost of adverse selection and other costs (including the profits of the insurer) can be identified.

A convenient way to make those comparisons is to construct a money's worth ratio, the ratio of the expected present value of annuity payments to the premium paid in the market for that annuity. A money's worth ratio indicates how much each premium dollar paid to the insurer generates in expected present value of annuity payments. The money's worth ratios are always less than unity (1) because the insurer faces overhead costs in providing the insurance. **Money's worth ratios below 1 should not be taken as an indication that the insurance is not worth buying**.

This method of identifying the effect of adverse selection was first applied to data from the 1980s. Recently, Olivia Mitchell, James Poterba, and Mark Warshawsky improved the methodology to measure the effect of adverse selection on 1995 annuity prices.[51]

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50 See Michael D. Hurd and Kathleen McGarry, "Evaluation of the Subjective Probabilities of Survival in the Health and Retirement Survey," Journal of Human Resources, vol. 30, suppl. (1995), pp. S268-S292.

51 Benjamin M. Friedman and Mark J. Warshawsky, "The Cost of Annuities: Implications for Saving Behavior and Bequests," Quarterly Journal of Economics, vol. 104, no. 1 (1990), pp. 135-154; Mark J. Warshawsky, "Private Annuity Markets in the United States: 1919-1984," Journal of Risk and Insurance, vol. 55, no. 3 (1988), pp. 518-528; and Mitchell, Poterba, and Warshawsky, New Evidence on the Money's Worth of Individual Annuities.

Their calculations take the average premium reported by A.M. Best as the market price. The new study also captures the effect of taxation and accounts for the fact that interest rates differ for different maturities.

In calculating money's worth ratios for the general population and the subpopulation of annuitants, different assumptions about interest rates are employed. Since annuity premiums depend on an expected future rate of return on investments, the table uses interest rates on Treasury notes and Baa corporate bond rates to discount future annuity income. The corporate bond rate reflects the price of borrowing for private companies; the Treasury rate reflects the lower rate of borrowing accorded to the government. Since the risk properties of the average annuity insurer are unknown, the two rates provide reasonable benchmarks. The rates used in the calculations are derived from the prices of Treasury notes with different maturities: payments made one year in the future are discounted with the Treasury bond yield of one-year maturity, while payments made 20 years in the future are discounted with the Treasury bond yield of 20-year maturity. The adjustment assumes a constant risk premium for corporate bonds.

The estimates in Table 7-1 depend on specific assumptions about future mortality rates and the size of the annuity. Of course, mortality rates are uncertain. If mortality rates were to decline more rapidly than assumed, the money's worth would be higher. The estimates also focus exclusively on annuities purchased for a $100,000 premium. To the extent that larger premium payments are connected with lower overhead costs, larger annuities could be more favorably priced.

Annuitants whose mortality expectations coincide with those of the average population receive annuities that are worth between 75 cents and 85 cents per dollar of annuity premium paid (see Table 7-1). Take, for example, the annuity for a 65-year-old male. Discounting with the Treasury bond rate results in a money's worth ratio of 0.814. Hence, the price of the annuity would be 18.6 percent less than the actual price charged in the absence of overhead costs and adverse selection. The money's worth ratio is smaller when future annuity payments are discounted at the corporate bond rate.

A similar picture arises for women and people who hold joint annuities. The money's worth ratio is higher for women than for men, and in most cases the money's worth ratio is highest for people with joint annuities, reflecting the differences in both mortality rates and the incentive to purchase annuities for different groups of the population.

As described above, some portion of the reduction in money's worth ratios occurs because annuitants live longer than the average population. The money's worth ratio for a 65-year-old male annuitant is 0.927, compared with 0.814 for the average 65-year-old male. The difference between the mortality of annuitants and the general population explains about 10 percentage points of the drop in the money's worth ratio. **Analysts refer to that difference as the cost of adverse selection**.

The cost of adverse selection rises with age and is smaller for females than for males. One explanation is that people who have survived to age 75 and then decide to buy an annuity are healthier than the general population. People who buy annuities at older ages may have even more private information about their survival prospects than people who buy annuities at younger ages. The lower cost of adverse selection for females and joint annuitants may reflect a smaller variability in female mortality rates:

with lower variance in mortality rates, there is less opportunity to exploit private information about one's own longevity prospects. The possibility that households may insure within the family may make the market for joint annuities less vulnerable to adverse selection. Joint annuities may be an attractive way to ensure a stream of income for a healthy spouse even though the other spouse may be frail or ill.

TABLE 7-1.
MONEY'S WORTH RATIOS FOR SINGLE-PREMIUM IMMEDIATE LIFE ANNUITIES IN 1995

Sex and Age of Annuitant		Money's Worth Ratio for the General Population Discounted with		Money's Worth Ratio for Annuitants Discounted with		Difference in Money's Worth Ratio (Cost of adverse selection) Discounted with	
		Treasury Rate	Corporate Rate	Treasury Rate	Corporate Rate	Treasury Rate	Corporate Rate
Men							
	55	0.852	0.773	0.934	0.840	0.082	0.067
	65	0.814	0.756	0.927	0.853	0.113	0.097
	75	0.783	0.743	0.913	0.860	0.130	0.117
Women							
	55	0.880	0.791	0.937	0.838	0.057	0.047
	65	0.854	0.785	0.927	0.847	0.074	0.062
	75	0.846	0.796	0.919	0.861	0.073	0.065
Joint and Survivor[a]							
	55	0.889	0.792	0.930	0.824	0.041	0.032
	65	0.868	0.792	0.929	0.841	0.061	0.049
	75	0.846	0.791	0.922	0.857	0.076	0.066

SOURCE: Congressional Budget Office using data from Olivia S. Mitchell, James M. Poterba, and Mark J. Warshawsky, *New Evidence on the Money's Worth of Individual Annuities*, Working Paper No. 6002 (Cambridge, Mass.: National Bureau of Economic Research, April 1997), Tables 3 and 4.

NOTE: All numbers refer to the average annuity payment for a $100,000 premium and reflect the tax treatment of annuities. The money's worth ratio is defined as the ratio of the expected present value of future annuity payments divided by the average premium paid for the annuity as reported by A.M. Best.

a. Joint annuities assume a couple of the same age.

Calculations that discount future payments at the corporate bond rate show a lower cost of adverse selection. The reason for that finding is that the corporate bond rate is higher than the Treasury bond rate and therefore discounts future payments more heavily, implying that the money's worth ratio depends less on the differences in mortality rates.

The cost of adverse selection seems to be smaller in the Canadian than in the U.S.

market. According to findings by Moshe Arye Milevsky, adverse selection in Canada for 65-year-old male annuitants reduced money's worth ratios by 3.6 to 4.6 percentage points between 1984 and 1996, depending on the discount rate used. For 65-year-old females, adverse selection reduced money's worth ratios by 2.2 to 2.9 percentage points.

To conclude, the latest empirical evidence for the United States suggests that the "money's worth" of today's annuities is about 75 cents to 85 cents per dollar of premium paid. If future annuity payments are discounted at the Treasury bond rate, adverse selection accounts for about half of the shortfall, and overhead costs and profits of the insurer account for the rest. If future payments are discounted at the corporate bond rate, then adverse selection accounts for about one-third of the shortfall. The cost of adverse selection rises with age and is smaller for women than for men.

Evidence for the Correlation Between Income and Mortality

Some of the difference in money's worth ratios between annuitants and the general population may simply indicate that households with more wealth are both more inclined to purchase annuities and more likely to live longer, especially because Social Security's annuity rises less than proportionally with income and replaces less than 20 percent of income for the richest people.

The literature provides ample evidence that poorer people have shorter life expectancy. Jonathan Feinstein recently surveyed the medical and economics literature and found that lower income is correlated with shorter lives.[52] Although no single channel for this connection has been identified, a multiplicity of factors including lifestyle, habits, and access to health care probably influence longevity. However, the relationship between income and mortality may be overstated because empirical estimates also indicate that someone who is not healthy may not be able to work and so has a lower income.

Recent studies using longitudinal data try to control for the effect of health on income by relying on wealth or lifetime income measures rather than annual income measures. One such study by Paul Menchik employs 20 years of data from the National Longitudinal Study (NLS) and finds that both wealth and permanent income--measured as the constant income one would receive over the entire 20-year period, dividing the actual income equally over all periods--lower mortality significantly. Properly controlling for income and wealth also reduces the effect of race on mortality to marginal significance. Menchik finds that income affects mortality even within groups of people who had the same health characteristics when the survey started. Overall, the evidence suggests a strong link between income and mortality in the United States.[53]

PRIVATE ANNUITIES MARKETS IN A SOCIAL SECURITY SYSTEM WITH PERSONAL RETIREMENT ACCOUNTS

Some proposals for changing the Social Security system currently being discussed would alter how Americans save for retirement and receive retirement income. Those proposals require that workers accumulate retirement savings in personal retirement accounts. In order to achieve the same level of protection against life span uncertainty

52 See Jonathan S. Feinstein, "The Relationship Between Socioeconomic Status and Health: A Review of the Literature," The Milbank Quarterly, vol. 71, no. 2 (1993), pp. 279-309.

53 Lee A. Lillard and Constantijn W. A. Panis of RAND draw a very similar conclusion in a recent study that assesses the mortality of participants in the Panel Study of Income Dynamics. See Lillard and Panis, "Income and Mortality" (draft, RAND, December 1996).

that is offered by Social Security, accumulated funds would have to be converted into a real fixed annuity. If markets for private annuities are imperfect, however, those annuities may be costly or unavailable, and long-run gains from prefunding a privatized social security system may be smaller than suggested in some recent papers. This section addresses how the annuities markets may be affected by creating personal retirement accounts and then discusses the underlying policy issues in more detail.

Effects of Personal Retirement Accounts on Annuities Markets

If the current system reflects the preferences of retirees for annuities, the annuities markets could expand substantially under proposals that create personal retirement accounts. Currently, lower-income households hold almost all of their wealth in expected future Social Security benefits. The share of Social Security wealth is 40 percent to 50 percent for median earners and less than 15 percent for high earners.[54] Thus, if policymakers reduced Social Security benefits, the demand for annuities would probably increase, especially for low- and median-income households.

By combining annuity products, a retiree could tailor the payout much more closely to his or her preference and circumstance than the rules of Social Security currently allow. Many annuity products already exist: fixed-payments-certain or refund annuities that allow people to bequeath the remaining annuity principal; annuities with a variety of survivor options to protect several people against longevity risk; and fixed annuities or variable annuities that can match individual risk preferences. Other annuity products could be developed: annuities could be indexed for inflation or offer a reduced monthly payment in exchange for providing health and long-term care insurance.

Reduced Adverse Selection. Theoretical models of annuity demand predict that the cost of adverse selection would fall if Social Security's annuity was reduced.[55] Social Security currently satisfies most of the demand for annuities by people with shorter-than-expected life spans. If private retirement accounts replaced some or all of Social Security, those people might purchase private annuities. Moreover, because income and mortality are correlated, the increased demand for annuities by low and median earners could lower the life expectancy of annuitants on average, which in turn would allow insurance companies to lower annuity prices. A model that takes those complexities into account shows that under certain assumptions, the cost of adverse selection could fall by 1 to 2 percentage points if Social Security benefits were entirely replaced with personal retirement accounts.

However, historical evidence only partially supports those theoretical arguments. Mark Warshawsky collected historical annuity prices and analyzed adverse selection for the two decades before Social Security was created, when the annuities market was small and most annuitants were women. After the introduction of Social Security, the cost of adverse selection in the annuities market rose by 5 percentage points for 65-year-old males but remained approximately the same for 65-year-old females.[56] Warshawsky also finds that the cost of adverse selection has declined for females when comparing the period from 1963 to 1984 with the period from 1919 to 1940. By contrast, the cost of adverse selection stayed constant for males.

54 See Gustman and others, Pension and Social Security Wealth in the Health and Retirement Study.

55 Andrew B. Abel, "Capital Accumulation with Adverse Selection and Uncertain Lifetimes," Econometrica, vol. 54, no. 5 (1986), pp. 1079-1098.

56 Warshawsky, "Private Annuity Markets in the United States: 1919-1984."

According to theory, the cost of adverse selection should have gone up for females as well. That indicates that the introduction of Social Security may not have increased adverse selection for all market segments. The current U.S. economy differs substantially from its counterpart in the 1930s, which may also call into question the applicability of comparative historical evidence. Back then, more families lived in rural areas, risk sharing within the family was more widespread, life expectancy beyond 65 was shorter, and the financial markets were much less developed. Life annuities markets have existed for a very long time, which points to a substantial demand for insurance against longevity risk. For example, Hans-Peter Baum, "Annuities in Late Medieval Hanse Towns," *Business History Review*, vol. 51, no. 1 (1985), states that in European medieval Hanse towns, "life annuities were payable only for the lifetime of the buyer; they could not be redeemed or sold to another person. In a way, they resembled modern old-age pension plans. Life annuities were often bought from hospitals or churches, which were unlikely to default on payments and which presumably did not speculate on an early death of the buyer." Baum also reports that life annuities bore significantly higher interest than usual credit contracts. Unfortunately, none of the historical prices have been analyzed for the cost of adverse selection because of a lack of mortality tables for annuitants.

Overhead Costs. Overhead costs would fall as retirees demanded larger annuities and the annuity pool expanded. Moreover, a growing annuities market would attract more companies and therefore increase competition, putting additional downward pressure on annuity prices. However, competition for largely similar annuity products could lead to a substantial increase in marketing costs for insurers and thus raise overhead costs.

Challenges for Annuities Markets and Policymakers

If private annuities markets continued to experience substantial adverse selection and overhead costs even under a privatized Social Security system, some people might decide not to annuitize their wealth. People with either small account balances or shorter-than-average life expectancy might view annuitization as too expensive and choose to live off their savings. In the event those savings turned out to be insufficient, they would have to rely on government assistance.

Moreover, if the government guarantees a generous retirement income to people with insufficient means, some may deliberately spend down their savings. Such behavior is called gaming because people exploit the insurance offered by the government (they "game the system").

Others may fail to annuitize their wealth because they do not understand the consequences or lack the information to make rational, forward-looking choices ("myopic" behavior).[57] Among other things, they may have difficulty comprehending the complicated interaction between the assumptions about mortality and rate of return that determines annuity premiums.

Regulatory Issues for Annuities Markets and Retirement Accounts

In thinking about a regulatory framework for personal retirement accounts and annuities markets, policymakers will confront the following questions:

- How should retirement savings be withdrawn?

[57] See Peter A. Diamond, "A Framework for Social Security Analysis," *Journal of Public Economics*, vol. 8, no. 3 (1977), pp. 275-298.

- At what age and over what period should funds be available for withdrawal?
- How much information should annuity companies be able to use in pricing annuities?
- What types of annuities should be available to retirees and how much should annuity companies be regulated?
- How should annuities be taxed?
- How generous should the guaranteed minimum benefit be and how should it be provided?

How Should Retirement Savings Be Withdrawn? In a Social Security system with mandatory personal retirement accounts, people could accumulate a substantial amount of wealth. Rules on how that money is withdrawn at retirement are therefore as important as the provisions concerning contributions to and investment of those accounts.

Policymakers must first decide whether they want to restrict the withdrawal of funds. Should they mandate that the entire account be annuitized? Mandatory annuitization of retirement savings could reduce adverse selection and lower the price of annuities. Forcing all retirees to buy annuities would reduce the price of annuities, since the mortality characteristics of annuitants would then tend to reflect the mortality characteristics of the average population. Note, however, that insurers could not use simple population mortality tables to assess the mortality of the average annuitant. Because of the correlation between income and mortality, the longer-lived richer people hold a larger share of the annuities market than would be predicted by their share of the population. Therefore, insurers would have to use income-weighted mortality tables, which would raise the cost of annuities.

Mandatory annuitization might also keep overhead costs in check. If everyone born in a certain year was forced to annuitize at, say, age 65, that entire birth cohort would enter the annuities market simultaneously. If that cohort (or large subgroups of that cohort) purchased group annuities, they would face lower marketing costs and commissions compared with those in the individual annuities market. The government could facilitate the purchase of group annuities by establishing a specific bidding process. Forcing people to annuitize their account balances could also address the problem of myopia and gaming. If retirees were forced to purchase a life annuity with their account balances, they would receive income until the end of their life, regardless of their ability to plan ahead. By the same token, people who had account balances that provided a sufficient retirement benefit but who were locked into an annuity would not be able to spend down their assets and then rely on government assistance.

However, mandatory annuitization may encourage participation in the underground economy and thus still leave some room for gaming. Because people in a system with mandatory accounts and forced annuitization cannot access their savings before retirement or spend that money freely after retirement, those with lower income and shorter life expectancy may choose to earn some of their income in the underground economy and rely on government assistance after retirement. That behavior largely depends on the size of the underground economy, which is small in the United States. Indeed, under the current Social Security system, payroll tax evasion is largely limited to the self-employed.[58] Other problems may arise. If everyone was forced to annuitize their

[58] Joyce Manchester, "Compliance in Social Security Systems Around the World," in Olivia Mitchell, Robert Myers, and Howard Young, eds., *Prospects for Social Security Reform* (Philadelphia: University of

wealth without the possibility of bequests, people with shorter life expectancies would be hurt. Of course, those people also fare poorly in the current Social Security system. Allowing withdrawal options other than full annuitization may reduce those concerns, but those options would allow adverse selection and thus raise the cost of annuities for people remaining in the market.

Redistribution through Regulation

Some analysts are also concerned that the government could use mandatory annuitization to redistribute income by regulating annuity prices and mortality tables. For example, if policymakers used unrealistically pessimistic mortality tables for a certain group of the population, that group would receive higher incomes in retirement than would be actuarially fair. Of course, alternative options for withdrawing funds could allow disadvantaged groups to opt out of the market, which would serve as a check on such governmental intervention.

If policymakers decide against mandatory annuitization, should retirees' withdrawals still be regulated or should they have complete freedom in deciding how fast to spend their assets? Could retirees withdraw their funds in a lump sum or should their withdrawals be restricted? One possible restriction, for example, would be to prohibit people from withdrawing more than a given amount each month. In the case of such "programmed withdrawals," a limit would be set by the size of the account and the accountholder's expected remaining life span. Restricting withdrawals only partly addresses the problem of myopia and gaming after retirement. Prohibiting people from withdrawing more than a certain amount (programmed withdrawals) in any given period, for example, does not insure against longevity risk since the stock of remaining resources falls each year. If retirees live unexpectedly long, they may qualify for government assistance programs because their resources are depleted. Moreover, people who perceive annuities as a bad deal may choose programmed withdrawals, creating another adverse selection problem.

Giving people complete freedom in using their retirement accounts would create the largest risk to the government. If lump-sum withdrawals were permitted, retirees could use their resources as they see fit but could increase the government's costs. Some people might recklessly spend down their savings; others might rationally choose to qualify for government assistance by spending their money or transferring it to their children. That behavior becomes more likely as the government's minimum pension becomes more generous (see below).

Despite those potentially detrimental effects, it may be reasonable to allow people to withdraw some of their funds in a lump sum, because the mandatory saving in personal retirement accounts may substantially exceed what is necessary to maintain a retiree's previous standard of living. For that reason, policymakers may want to allow withdrawal of those funds that exceed a minimum threshold in a lump sum and mandate the annuitization of the rest.

At What Age and Over Which Time Period Should Funds Be Available for Withdrawal? Since funds in personal retirement accounts would be accumulated specifically to provide retirement income, people would have access to their funds only

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Pennsylvania Press, forthcoming).

after they reached a "normal" retirement age. Both the Individual Account Plan and the Personal Security Account Plan of the last Advisory Council on Social Security give access to savings at age 62.

One potential problem is that retirees could face the risk of unexpectedly low asset values at the time their savings must be annuitized. If the stock market fell just before retirement or if interest rates were low, those retirees would have less wealth and their life annuity would be smaller than they had expected.

Additional risks arise if retirees are forced to switch their investment portfolios upon retirement--for example, by converting stocks into a fixed annuity. That risk could be eliminated if retirees were allowed to purchase variable annuities that reflect their investment portfolio before retirement. In that case, no adjustment of investments would be necessary at retirement.

Alternatively, rules could allow people to annuitize their wealth over a certain period. For example, retirees could annuitize one-tenth of their retirement account each year between ages 65 and 75. Because market prices vary less over a long horizon than over a shorter period, such a provision would reduce the volatility of retirement income.

Yet if the entire retirement account must be annuitized within a certain time frame, the risk of switching investment portfolios cannot be eliminated. In the United Kingdom, for example, an annuity must be purchased with the entire account balance sometime before age 75. Thus U.K. retirees face a decision similar to that of an investment manager: they must bet whether the market will go up or down in the future, a task at which many professionals fail.

Offering a substantial window of time for converting all savings into an annuity has a further disadvantage: it exacerbates adverse selection. Those who expect a shorter life span could postpone their annuitization and--if they happen to die before annuitization--could leave the remaining account balance to their estate. Such behavior would lead to a healthier-than-average pool of annuitants with longer-than-average life expectancy, defeating the purpose of the mandate.[59]

How Much Information Should Annuity Companies Be Allowed to Use in Pricing Annuities? Insurers could attempt to separate annuitants into risk classes based on sex, marital status, forebears' longevity, income, and health habits. However, severe conflicts might arise between the protection of individual privacy and the informational demands of annuity insurers. For example, would insurers have access to the results of genetic tests, or would that information remain private? Equally difficult is the distinction between market separation and the perception of discrimination. For example, would insurers be allowed to sell differently priced annuities to men and women, or would unisex policies be required? (Pension plans covered by group annuity insurance are already required to offer the same pensions to men and women.)

If annuitization is not mandatory, pooling different risk classes may make annuities unattractive to people with shorter life expectancy, exacerbating adverse selection. Specifically, if programmed withdrawals or lump-sum withdrawals are possible, those with shorter life expectancy (low-income male smokers, for example) might simply stay

[59] Valdés-Prieto, "Design of Pensions and the Mandate to Annuitize."

out of the annuities market, raising the price of annuities for other market participants.

If annuitization is mandatory, prohibiting the segmentation of annuitants into risk classes implies redistribution of resources among different people. If low-income retirees with shorter life expectancy pay the same price for an annuity as high-income people with above-average life expectancy, wealth is redistributed from the low-income person to the high-income one. If unisex annuities are required, resources will be implicitly redistributed from men to women since women live longer on average than men. Both types of redistribution could have substantial effects on the welfare of certain groups.[60]

What Type of Annuities Would Be Available? Should retirees be able to use their personal retirement accounts to purchase both fixed and variable annuities? Variable annuities tend to offer higher payouts on average since the risk is shifted from the insurer to the annuitant. But variable annuity payments can also be volatile, and the annuitant would have to rely on other assets or borrowing to smooth consumption over time, especially during periods of sharp asset devaluation. The government's safety net may even entice people to buy more or riskier variable annuities than they otherwise would, creating moral hazard. Policymakers could restrict the riskiness of the asset portfolio of variable annuities, but to the extent that the risk and return properties may not coincide with annuitants' preferences, doing so may lower annuitants' well-being. Alternatively, policymakers could allow only annuities that pay a guaranteed minimum income exceeding the level of government assistance. However, such annuities could increase moral hazard problems among annuity insurers (as discussed below).

Should all annuities be indexed to inflation? Indexing would protect annuitants from changes in the price level and reduce the chance that they would require government assistance even with rising prices. However, annuitants might pay a price for not being exposed to inflation risk: their real returns would tend to be somewhat lower than the difference between nominal returns and expected inflation. Economic theory suggests that full indexation may not be desirable, because people weigh the benefit of small inflation risk against the cost of reducing that risk.[61]

Should refund and fixed-payments-certain annuities be permitted? Annuities that offer a refund if the annuitant dies before a certain age or that guarantee a minimum number of payments pay a lower annuity income. However, they also increase the flexibility of the annuities market to serve annuitants who do not expect to live long. The Individual Account Plan of the Advisory Council on Social Security mandates the purchase of annuities but explicitly permits annuities with minimum guaranteed payment periods. Moreover, such options may assist annuity companies in separating risk classes and could therefore lead to fairer pricing of annuities than in a pooled market. Should policymakers mandate the purchase of survivor insurance? Unlike Social Security, a system with individual retirement accounts may not provide benefits to survivors and dependents. Many women work in low-wage jobs and have a less stable earnings history than men because of employment interruptions. As a consequence, some women may not accumulate enough savings to purchase an annuity that provides sufficient retirement income. In that case, they may have to rely on their husband's

[60] See Jan Walliser, "Privatizing Social Security While Limiting Adverse Selection in Annuities Markets," Technical Paper No. 1997-5 (August 1997), available from CBO's Macroeconomic Analysis Division.
[61] Martin S. Feldstein, "Should Private Pensions Be Indexed?," in Zvi Bodie and John Shoven, eds., *Financial Aspects of the U.S. Pension System* (Chicago: University of Chicago Press, 1983), pp. 211-230.

annuity or the government. Policymakers could require that annuities cover the annuitant and spouse either through a joint life annuity or a survivor annuity that pays some proportion of its value to a surviving spouse. Such a provision would prevent the survivor from being pushed into poverty and therefore would reduce gaming and the attendant costs to the government. Alternatively, spousal consent could be required if an annuitant wanted to purchase an annuity for his or her life only. Similar rules might be necessary if lump-sum withdrawals from retirement accounts were permitted. (Programmed withdrawals do not create a similar problem since the remaining account balance would be part of the retiree's estate.)

How Tightly Should Annuity Insurers Be Regulated? If policymakers implicitly or explicitly guarantee the annuity contracts offered by private insurers, regulation of annuity insurers' funds may be necessary to reduce the risk to the government. Fixed annuities expose insurers to a rate-of-return risk and the risk that mortality rates might improve unexpectedly in the future. If an insurer's assets underperform, the company may be unable to meet its obligations, and policymakers may feel obliged to help retirees who purchased annuities from that company. Policymakers could create some formal insurance--similar to that provided to pension plans by the Pension Benefit Guaranty Corporation--for annuity companies. However, such insurance may lead to overly risky investment strategies of annuity insurers unless it is properly priced or policymakers develop regulations to limit risk taking. The savings and loan crisis during the 1980s is an example of how government guarantees can lead to overly risky investment behavior. Further, regulating the insurer's investment choices (for fixed annuities) or the annuitant's investment choices (for variable annuities) are just two manifestations of the same issue: the entity that bears the risk may take on too much risk if the government offers guarantees.

Should companies that offer investment services during the accumulation period of retirement savings be prohibited from offering annuities? On the one hand, prohibiting investment companies that handle the accumulation of accounts from also offering annuities may hinder the sale of deferred annuities. Economic theory predicts that adverse selection is less important if annuitants can commit to an annuity purchase early in life (deferred annuity). Younger investors should therefore find variable annuities valuable because the reduced adverse selection an insurer faces at younger ages is not offset by a higher rate-of-return or demographic risk for the insurer.
On the other hand, allowing one company to handle the accumulation and annuitization of funds would give that firm market power since it may be difficult to switch companies once the account balance is committed to annuitization. Increased market power tends to lower competition among insurers and raise prices.

How Should Annuities Be Taxed? The tax treatment of annuities may affect the incentive to purchase an annuity. The current tax code makes special provisions to capture the complexities of annuities. An annuity payment combines the principal (the premium paid to the insurer) and the rate of return the insurer receives on his or her investment. The tax code attempts to tax the portion of an annuity that reflects a return on investment, measuring the taxable return as the difference between the actual annuity payment and the premium paid to the insurer (net of federal, state, and local premium taxes) divided evenly over the annuitant's expected life span according to the Treasury's life tables. The tax treatment of annuities introduces distortions because the mortality tables used to assess the taxable portion of an annuity payment rarely reflect the true expected mortality experience of an annuitant.

In a Social Security system with personal retirement accounts, the tax treatment of annuities would probably be linked to the tax treatment of accounts. Most existing plans to change Social Security would accumulate retirement savings from after-tax income, but the return on those savings would remain untaxed. Exempting annuities from taxation would therefore be consistent with the tax treatment of the accounts.

Minimum Benefit Guarantee. Policymakers have to weigh the advantage of a minimum benefit guarantee on annuities against the disincentives: spending down retirement savings and incentives to work in the underground economy. As discussed earlier, a generous minimum benefit guarantee combined with unregulated lump-sum withdrawals would provide large incentives to spend down retirement funds and then rely on the minimum benefit, but the incentives for such behavior are substantially smaller if only programmed withdrawals are permitted. People with shorter life expectancy may prefer to risk outliving their resources, creating an adverse selection problem in the annuities market if the government provides a generous minimum benefit. Finally, if annuitization is mandatory, a minimum benefit may also increase the incentive to work in the underground economy to avoid the mandatory saving.

Two ways of providing minimum benefits would have different repercussions on the annuities market and government spending. A minimum pension that depended on the account balance and only supplements insufficient retirement savings may not significantly affect annuities markets if the account balance can only be used to purchase an annuity. However, a flat benefit paid to everyone regardless of need would create a basic insurance against longevity risk and therefore alter the incentives to purchase annuities, disproportionately reducing annuity demand by the shorter-lived households.[62]

CONCLUSION

Annuities are important financial instruments that provide insurance against life span uncertainty. Thinking about the availability and cost of annuities is therefore essential for considering changes to Social Security. Private annuities are currently costly because of adverse selection and overhead. Some of those costs might fall if Social Security was altered and the market for private annuities grew. However, because of adverse selection, myopic behavior, and the existence of a safety net, some people might be less inclined to buy annuities than would be desirable from society's perspective, and annuities may remain costly.

A variety of policy options might be considered to avoid the high costs of annuities in a privatized system. Those policy options would monitor the regulation of withdrawals from personal retirement accounts, the timing of annuity purchases, the regulation of annuities markets, and the generosity of government minimum benefit guarantees. In considering the withdrawal of funds from personal accounts, policymakers need to evaluate the benefit of reducing costs for society against the cost of limiting individual choices.

[62] See Walliser, "Privatizing Social Security While Limiting Adverse Selection in Annuities Markets."