

# Payout Annuities

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Annuities are really two products in one. In the deferral phase, the annuity acts as a tax-deferred investment. Annuity proceeds can remain on deposit and grow on a tax-deferred basis until the proceeds are withdrawn. In the pay-out phase, the annuity provides monthly income to the owner for as long as the owner chooses (lifetime, 20 years, etc.). This document describes issues related to the pay-out phase.

To initiate the pay-out phase, the annuity owner must remit a premium to the insurance company. In exchange for this premium, the insurer promises to make regular (usually monthly) payments to the annuity owner (the annuitant). Insurers use actuarial tables to aid in making the necessary calculations to determine how much monthly income to pay, based on the annuitant's choice of product design.

For example, if a 70 year old male wanted to receive monthly payments for as long as he lived, and he had \$50,000 to spend, the insurer would provide \$387.24 per month.<sup>1</sup> To determine the monthly benefit, the insurer needs to answer two important questions: (1) What return on investment can the insurer expect from the \$50,000 premium? (2) How long will the payments have to be made? In this first example, it is assumed that the insurer has a return on investment of 5% and the annuitant will live for about 17 ½ years. The insurer will accept the \$50,000, invest it, and gradually make payments to the annuitant. If the annuitant dies before 17 ½ years, then the insurer will still have money left over when the annuity ends. If the annuitant lives longer than 17 ½ years, the insurer will run out of money early. The insurer hopes to issue annuities to many annuitants, so they know that some will die early, some will live long, but on average a group of 70 year olds will live for about 17 ½ years.

Let's look at other examples to demonstrate how the monthly payment might change with different circumstances. First, if the insurer can get a 7% return on investment (instead of 5%), how might that impact the monthly payment? Well, the insurer still starts with \$50,000 and they still expect to make payments for 17 ½ years. The only difference is that the \$50,000 will grow faster and this means more money to pay to the annuitant. The monthly benefit increases to \$449.96. What if the return on investment drops to 3%? The monthly benefit decreases to \$327.05. Of course, interest rates and returns on investment can change over time, but that does not affect the annuitant. Once the annuitant enters into a contract with the insurer, the monthly benefit will not change.<sup>2</sup> This means that the insurer has the investment risk. In our first example, the insurer assumed that they could earn 5% per year for as long as the annuity is active. Since some 70 year olds will live to be more than 110, the insurer is making an assumption on investment returns for as long as 40 years! If you think that the insurer is using an interest rate that seems low, you may have forgotten how long of an investment horizon the insurer must use.

But back to our examples. We've seen how interest rates can make a big impact on monthly payments, so it is fair to ask what else can have an impact. Age is also very important. Let's

assume we now have an 80 year old male, instead of a 70 year old male, how would the monthly benefit change? For the 70 year old male, the monthly benefit for a \$50,000 premium is \$387.24, but for an 80 year old male, the monthly benefit is \$550.42, an increase of over 40%! Why the big change? Remember the second question the insurer must answer, how long can they expect to make payments? For the 70 year old, they expect to make payments for 17 ½ years, but for the 80 year old they expect to make payments for only 11 years. So, the insurer can afford to make much larger payments to the 80 year old without fearing running out of money.

In the annuity business, female benefits are smaller than male benefits, because females are expected to live longer. For example, a 70 year old female can receive a monthly benefit of \$353.41 and an 80 year old female can receive a monthly benefit of \$503.83, even though they give the insurer the same \$50,000 as their male counterparts. Discrimination? No, since most insurers are allowed to recognize measurable differences in mortality of different classes of customers. Again, the size of the monthly benefit will depend on the answers to our two key questions. Since a 70 year old female is expected to live for almost 20 years, as opposed to 17 ½ years for the male, the insurer can expect to make more payments to her. Therefore, the insurer must make smaller monthly payments, or risk running out of money.

Another important choice for the annuitant is whether to include a certain period with their monthly benefits. A certain period, such as 10 years, guarantees that the insurer will make a certain number of payments, even if the annuitant has died. The extra payments are merely made to the beneficiary, rather than the annuitant. Our 70 year old male who could get a monthly benefit of \$387.24 without a certain period, can get a benefit of \$361.38 with a 10 year certain period. Adding a certain period always lowers the monthly benefit, because the insurer can expect to make more payments when a certain period applies. Remember, the insurer knows that if they sell an annuity to 100 different 70 year old men, some will die early, some will live long and on average they will live for about 17 ½ years. But with a certain period, the insurer still has to make payments for at least 10 years, even if the annuitant died young and this means that the insurer will make more payments with the certain period than without it. Since they expect to make more payments, then each payment must be smaller.

Finally, what about an example where there are two annuitants, like a husband and wife. They want to receive monthly payments for as long as at least one of them is alive. If they are both 70 years old, they will receive \$306.37 per month. This figure is lower than what the 70 year old male or female would receive by themselves, so we know this must mean that the insurer expects to make more payments under this joint example. That is true. As we've said, a 70 year old male can expect to live for 17 ½ years and a 70 year old female can expect to live for nearly 20 years. However, how long do you expect at least one life to live (not the tv show!)? The insurer expects at least one life to be around for nearly 24 years! So, in order to keep from running out of money, the insurer must lower the monthly benefit for the joint example.

So what does all this mean for the consumer? Choose wisely. First, an annuity makes great sense if you are concerned about out-living your wealth, because it is one of the only investments that will continue to make scheduled payments for as long as you live. It would

make sense then to buy an annuity if you expected to live long. Now we never know for whom the bell tolls, but if your parents lived into their 90's (or are still living), you might also expect to live long.

Second, although joint annuities do not pay as high a monthly benefit as single life annuities, they are a good bet for a couple where both are in good health. It's often true that the financial needs of a senior couple are not as great as the needs of a senior widow or widower, so the lower initial monthly benefit of a joint annuity is not too big a concern. Keeping the monthly benefits flowing for the surviving spouse is much more important than having a slightly larger monthly benefit initially.

Third, use certain periods sparingly. Many people are reluctant to purchase a life-only annuity (no certain period) because they are sure that they'll get hit by a truck on the way home from buying the annuity and "that insurance company took all my money and all I got were some tire tracks!" But hindsight is 20/20. You wanted to buy the annuity because you were afraid you might outlive your wealth. That was still the right decision at the time, and your premature demise does not change that. In most cases, your surviving loved ones are more satisfied that you had peace of mind about your financial independence than they are with getting their inheritance. Now if you leave behind obligations, like caring for a dependent child, a certain period makes great sense. So remember, nobody knows your circumstances as well as you do, so nobody is better equipped to choose how your annuity will operate than you.

<sup>1</sup> This example and others are illustrative and not intended to reflect any particular insurance company's annuity rates.

<sup>2</sup> This document does not treat variable annuitization, a product where monthly benefits can change after issue.