Longevity Risk: Plan for the Unknown

By Kate Beattie, CFP®, RICP®
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Longevity Risk

PLAN FOR THE UNKNOWN

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Americans are living longer than ever before. Everyone knows that, it seems, except investors. Retirees frequently underestimate their life expectancy and the number of years they are likely to spend in retirement. It is critical we help investors understand their accurate life expectancy and the implications for their retirement-income planning. Although the uncertainty of longevity cannot be eliminated, we can plan and manage for it. Let’s discuss why longevity and life expectancy need to be top of mind in retirement-income planning conversations.

What is life expectancy in the first place?
Life expectancy from birth tends to be the statistic we hear about most often: A man or woman born in a certain year has X years average life expectancy. This information has little relevance for someone nearing or in retirement. For the purposes of retirement-income planning, a more relevant statistic is life expectancy at attained age. In fact, an 84-year-old nonsmoking woman in excellent health has a life expectancy of about seven years and a 10-percent probability of living for another 14 years.1 At age 65, both men and women can expect to live into their late 80s (based on median life-expectancy probability). For a 65-year-old couple, one spouse can expect to live into their 90s, as shown in figure 1.2 But this picture also can misinform planning for a retirement-income horizon because these statistics are based on the median probability of the entire population.

Although the term “lifespan” refers to the maximum number of years an individual may live, “life expectancy” refers to an estimate or an average number of years a person can expect to live. Various economic and demographic factors can contribute to large differences in life expectancy. Thus, many of your investors may have a survival probability that is much greater than the median.

CONSIDER CONTRIBUTING FACTORS
To provide more perspective for clients, consider using individual mortality factors such as gender, smoking choices, and general state of health to sharpen the life expectancy estimate (see table 1).3 This will help to ensure the planning horizon matches up with clients’ actual financial longevity risk and can provide your clients a more accurate picture of their retirement-income planning horizon. For instance,

Life expectancy is underestimated. Forty-three percent of retirees underestimate their own life expectancy by at least five years.*
Underestimating life expectancy, combined with having too short a planning horizon, can result in inadequate income later in retirement.
Pensions, Social Security, and annuities are uniquely suited to addressing and combating longevity risk.

It is critical we help investors understand a more complete view of their life expectancy probabilities and the implications for retirement income planning.


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** KEY TAKEAWAYS

- Life expectancy is underestimated. Forty-three percent of retirees underestimate their own life expectancy by at least five years.*
- Underestimating life expectancy, combined with having too short a planning horizon, can result in inadequate income later in retirement.
- Pensions, Social Security, and annuities are uniquely suited to addressing and combating longevity risk.
- It is critical we help investors understand a more complete view of their life expectancy probabilities and the implications for retirement income planning.

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** Figure 1 **

LIFE EXPECTANCY AT AGE 65

<table>
<thead>
<tr>
<th>Age</th>
<th>Male (age 65)</th>
<th>50% chance of living beyond</th>
<th>Female (age 65)</th>
<th>50% chance of living beyond</th>
<th>Couple (both age 65)</th>
<th>50% chance of living beyond</th>
</tr>
</thead>
<tbody>
<tr>
<td>65</td>
<td>84</td>
<td>91</td>
<td>87</td>
<td>93</td>
<td>91</td>
<td>96</td>
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<tr>
<td>70</td>
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<td>84</td>
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<td>84</td>
<td>79</td>
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<td>85</td>
<td>64</td>
<td>68</td>
<td>61</td>
<td>67</td>
<td>62</td>
<td>65</td>
</tr>
</tbody>
</table>


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suppose your investor is a 65-year-old woman who smokes and self-reports average health. Using the Society of Actuaries’ Longevity Illustrator,4 shown in figure 2, she has a 50-percent chance of living at least another 15 years (to age 80), compared with age 88 if she were a nonsmoker. But she also has a 25-percent probability of living at least another 22 years (to age 87). And if she were a nonsmoker, she would be likely to live another 29 years (to age 94). This range illustrates the uncertainty surrounding how long someone might live. These results may surprise many, considering that 43 percent of retirees and 38 percent of preretirees underestimate life expectancy by at least five years.5 Underestimating life expectancy, together with having too short a planning horizon, can result in inadequate planning for retirement-income needs.

Consider discussing these contributing longevity factors and median statistics as part of your client conversations.

**HOW LONG DO I PLAN FOR?**

The answer is likely longer than you thought if your goal for retirement-income planning is to provide an income stream that lasts as long as your client’s life. Misjudging longevity can have meaningful implications. Planning for too long can have your client living more frugally than necessary, and not planning for long enough can mean that your client may run out of money. Understanding expected mortality—individual and spousal—is a good first step in appropriate retirement-income planning.

However, expected mortality is just the average probability, and it is unlikely your clients will want to plan for average age. So, how long should they plan for? It depends a bit upon what they consider “reasonable.” A woman retiring at age 65 (nonsmoker, in average health) has a one-in-four chance of living to age 94 and a one-in-10 chance of needing income to age 98.6 Given the very real fear of outliving one’s income, many clients may “reasonably” want their retirement-income plan to consider at least a one-in-10 probability of running out of money. Some clients may favor an even more conservative plan. For a 65-year-old couple in average health, this could mean planning to live to 100, or even 105, translating into a 35- to 40-year retirement planning horizon. Although this may be a daunting prospect for many investors and for retirement-income planning, one way to approach the problem is to consider

### Table 1

**PLANNING HORIZON FROM ATTAINED AGE 65**

<table>
<thead>
<tr>
<th>Investor demographic</th>
<th>Contributing factor</th>
<th>Life expectancy at age 65</th>
<th>Difference from average life expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Non-smoker, excellent health</td>
<td>25 years</td>
<td>+2 years</td>
</tr>
<tr>
<td>Female</td>
<td>Smoker, average health</td>
<td>15 years</td>
<td>-10 years</td>
</tr>
<tr>
<td>Male</td>
<td>Non-smoker, excellent health</td>
<td>23 years</td>
<td>+3 years</td>
</tr>
<tr>
<td>Male</td>
<td>Smoker, average health</td>
<td>12 years</td>
<td>-11 years</td>
</tr>
</tbody>
</table>

Sources: Capital Group, and American Academy of Actuaries and Society of Actuaries, as of May 10, 2021.

### Figure 2

**PROBABILITY OF LIVING PAST AGE 65**

<table>
<thead>
<tr>
<th>Life expectancy (age)</th>
<th>Base case</th>
<th>90% probability</th>
<th>75% probability</th>
<th>50% probability</th>
<th>25% probability</th>
<th>10% probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 65 years old</td>
<td></td>
<td>+9</td>
<td>+16</td>
<td>+8</td>
<td>+15</td>
<td>+23</td>
</tr>
<tr>
<td>Life expectancy (%)</td>
<td>65</td>
<td>74</td>
<td>81</td>
<td>73</td>
<td>88</td>
<td>94</td>
</tr>
<tr>
<td>Life expectancy (%)</td>
<td>70</td>
<td>+6</td>
<td>+12</td>
<td>+8</td>
<td>+15</td>
<td>+29</td>
</tr>
<tr>
<td>Life expectancy (%)</td>
<td>75</td>
<td>+4</td>
<td>+9</td>
<td>+15</td>
<td>+33</td>
<td>+47</td>
</tr>
<tr>
<td>Life expectancy (%)</td>
<td>80</td>
<td>+2</td>
<td>+10</td>
<td>+18</td>
<td>+52</td>
<td>+58</td>
</tr>
<tr>
<td>Life expectancy (%)</td>
<td>85</td>
<td>+1</td>
<td>+13</td>
<td>+21</td>
<td>+70</td>
<td>+76</td>
</tr>
<tr>
<td>Life expectancy (%)</td>
<td>90</td>
<td>+0</td>
<td>+14</td>
<td>+23</td>
<td>+87</td>
<td>+93</td>
</tr>
<tr>
<td>Life expectancy (%)</td>
<td>95</td>
<td>+1</td>
<td>+15</td>
<td>+25</td>
<td>+22</td>
<td>+28</td>
</tr>
<tr>
<td>Life expectancy (%)</td>
<td>100</td>
<td>+0</td>
<td>+16</td>
<td>+27</td>
<td>+23</td>
<td>+33</td>
</tr>
</tbody>
</table>

Sources: Capital Group, American Academy of Actuaries and Society of Actuaries, as of May 10, 2021.
the risk tolerance of the investors’ retirement-income plan to longevity. In other words, what is their longevity risk tolerance?

**WHAT HAPPENS IF THE PLANNING HORIZON IS TOO LONG?**

When discussing retirement planning horizons with clients, consider starting the conversation by explaining the range of life expectancy projections and then compare those to how long they expect to live. It is likely that their expectations may be markedly different from reasonable outcomes.

The appropriate retirement planning horizon will depend on a tolerance for longevity risk (see figure 3). That is, how sure do your clients want to be that they will not outlive at least a portion of their retirement-income plan? And how well is their portfolio insulated against longevity? There is variability in tolerance for longevity risk that may be due to a personal concern of outliving income and how reliant their retirement income is on their investment portfolio.

For example, a 65-year-old woman (nonsmoker, in average health) retiring today is projected to have a 50-percent chance of living 23 years in retirement. However, she would likely want her plan to last longer than the “average” retirement length because, by definition, half of her cohort will be alive in 23 years. She may find it is reasonable to plan for a 10-percent probability of her outliving her retirement-income plan and should then consider planning for 33 years in retirement, to age 98.

Although it may be prudent to plan for a longer retirement horizon, the trade-off would be that a client’s lifestyle and spending may be unnecessarily constrained to allow the retirement portfolio to last longer. And, of course, this will have implications for investment allocation decisions. The good news about this approach is that clients are much more likely to maintain their standard of living throughout retirement and avoid the necessity of cutting back when they are most vulnerable. And there is also a higher likelihood of leaving a larger-than-planned legacy due to spending less, which may make future generations happy.

**WHAT HAPPENS IF THE PLANNING HORIZON IS TOO SHORT?**

Planning for a shorter retirement horizon may lead to overspending early on and the need for lifestyle adjustments later. It is important that clients realize the point at which a short horizon plan runs into trouble, because returning to fulfilling work may prove difficult and any legacy planning may fail as well.

For example, a 65-year-old female client with a higher longevity-risk tolerance may be willing to accept the risk of planning for “average life expectancy” (50-percent probability) and plan for her income to last only 23 years, to age 88. However, simply planning for a shorter horizon does not change her likelihood of living to 100. For clients seeking a short planning horizon, it is critical that a reasonable portion of their retirement income comes from protected lifetime-income sources—such as pensions, annuities, and Social Security—all of which provide income for life to help offset the longevity risk assumed by the aggressive planning. The risk transfer to lifetime-income products for a portion of their retirement income can reduce the risk associated with your client being among the 50 percent who live beyond the average. Be sure you engage your clients in thinking about what could happen should they live longer than their plan has anticipated.

**ACTION PLAN FOR ADVISORS**

Although the uncertainty of how long someone may live cannot be eliminated, you can help investors better understand their own unique probabilities and develop plans to reduce the likelihood they will outlive their financial resources. There are three ways advisors can help:

**Start the discussion early.** As financial professionals, assessing longevity is an essential consideration in any retirement-income plan. It will impact nearly every facet of the plan, and a client’s tolerance for longevity risk is an important measure of a plan’s resiliency.

**Build in assumptions.** An appropriate planning horizon will depend upon the individual’s definition of what is reasonable. As a general starting point, planning to a 10-percent life expectancy probability may be reasonable for many concerned about the tail risk; others
may view that as too aggressive or too conservative. On the other hand, the 25th percentile might be a good starting point for those not expecting to live long or who have sufficient protected income.

**Employ the right tools.** Tools such as the Society of Actuaries’ Longevity Illustrator can help to provide a range of life-expectancy probabilities for longevity risk that may help lead to a reasonable retirement planning horizon. Capital Group’s Portfolio Reliance Calculator also can help you estimate how much of your clients’ retirement-income portfolios are subject to longevity risk. As the reliance on the investment portfolio for income increases, so does the sensitivity to longevity and market risk.

To be sure, there are different strategies for planning income for a short or long retirement. Determining clients’ longevity risk, revisiting their circumstances often, and being prepared for the unexpected can be a sound approach to helping clients have appropriate income in retirement.

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**ENDNOTES**

2. Based on a 65-year-old heterosexual nonsmoking couple in excellent health.
3. In terms of comparing a client’s state of health to that of other people of the same age and smoking status.

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