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LONGEVITY INSURANCE: STRENGTHENING SOCIAL SECURITY FOR OLDER RETIREES

JOHN A. TURNER*

I. INTRODUCTION

Social Security provides a guaranteed lifetime benefit, but it is insufficient for most people to maintain their pre-retirement standard of living. Accordingly, most people need to supplement their Social Security benefits with other sources of income. While low-income retirees at age 62 often rely largely on Social Security, other retirees tend to have additional sources of retirement income. However, as people grow older, especially as they live past their life expectancies, they risk exhausting their non-Social Security sources of income.

Individuals in their 80s and older who have low Social Security benefits face particular economic vulnerability. At that age, few of them are able to offset their low benefits by working. As a matter of national policy, it is desirable for people in this age group, often called the old-old, to be able to live with sufficient resources to enjoy the last years of their lives with dignity.

Beyond Social Security, another source of income available to older retirees is longevity insurance, a deferred annuity that starts at an advanced age, such as 82. This type of annuity provides a form of insurance for long-lived persons who may have outlived their non-Social Security sources of income.

This Article proposes that longevity insurance should be added as a benefit provided by Social Security. To do so would not only help to protect older retirees, but it would also be particularly valuable as part of a reform package that included benefit cuts. This is because a social safety net would be needed to offset the effects of Social Security benefit cuts on the most vulnerable retirees.

When viewed from an international perspective, persons age 65 and older are much more likely to be in poverty in the United

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States than in any other high-income country. When poverty is measured as having income below 40 percent of national median income, the poverty rates for persons age 65 and older are 1.7 percent for Canada, 3.9 percent for Germany, 2.1 percent for Sweden and 10.2 percent for the United Kingdom, compared to 15.0 percent for the United States.

As such, longevity insurance would be particularly desirable if a benefit cut disproportionately affected people at older ages. An example of such a benefit cut would be to change the cost-of-living adjustment by using the chained Consumer Price Index (CPI), which would reduce indexing. This change would disproportionately affect people at older ages because the effect of the reduced indexing would be compounded as they grew older.

The target population for this Social Security reform proposal is people age 82 and older, especially those with low Social Security benefits and long work histories. Age 82 was chosen because it is approximately the average life expectancy of a person at age 65. It is important to note that women outnumber men by roughly two to one in this age group. In part because of increases in life expectancy, this age group is growing rapidly. Additionally, the aging baby-boomer generation will further swell the numbers of people in their 80s.

II. AN INCREASING RISK OF POVERTY WITH ADVANCING AGE

Poverty rates for the elderly increase with age. Elderly poverty is high among people age 80 and older—a third higher than for people age 65 to 69. Poverty is particularly a problem among older women. The poverty rate for women age 80 and older

2. Id.
3. See Bureau of Labor Statistics, Chained Consumer Price Index for All Urban Consumers (C-CPI-U), U.S. DEPT OF LAB. (last modified Mar. 15, 2013), http://www.bls.gov/news.release/cpi.t05.htm (explaining that the C-CPI-U is a close approximation to a cost-of-living index in that it, in its final form, accounts for any substitution that consumers make across item categories in response to changes in relative prices).
5. Id.
was 14 percent in 2004.\cite{fisherenet} Twenty-five percent of women in this group had income below 125 percent of the poverty line, compared to 10 percent and 13 percent for women age 55 and 61, respectively, indicating a 40 percent increase in the poverty rate for older women.\cite{fisherenet} One reason for this increase is that as people grow older, they tend to rely on Social Security for an increasing portion of their retirement income. This is due to a decline in the availability of other sources of retirement income. Official poverty statistics, which are based on a methodology established in 1964, understate the problem of poverty in this age group because they no longer represent the minimum needs of older persons.\cite{butricazudefed}

These figures are an imperfect measure of how poverty rates increase as people age. Due to the greater mortality risk of low-income persons, these figures understate the percentage of older women who have fallen into poverty. For example, a recent study of males found that, at ages 63 to 71, the higher their lifetime income, at least up to a fairly high level, the lower their mortality risk.\cite{waldron}{n.1}

People in this age group are at risk of falling into poverty even though they had not been in poverty earlier in their lives.\cite{lee} They also have greater difficulty leaving poverty than people who are a few years younger.\cite{lee} And this problem may be growing over time. While the bankruptcy rate for persons under age 55 fell over the period of 1991 to 2007, it more than quadrupled for people age 75 to 84.\cite{sednesky} Thus, numerous consequences of flawed decision-making may lead to financial distress in advanced old age.

The MetLife Retirement Income IQ Study provides evidence of a number of issues relating to people’s ability to plan for their

\begin{footnotes}
\item[8.] Id.
\item[12.] Id.
\end{footnotes}
spending in old age. It found that nearly 70 percent of pre-retirees overestimate how much they can withdraw from their savings while ensuring that their savings will last. More than 40 percent indicated that they think they could withdraw 10 percent of their savings each year while preserving their principal, while 14 percent believe they could draw down 15 percent per year while maintaining their principal. Almost half estimate that they will need 50 percent or less of their pre-retirement income to maintain their consumption in retirement. Six in 10 people in this group underestimate their chances of living beyond average life expectancy.

Thus, a number of factors may account for why someone who was not in poverty at age 62 may fall into poverty later in life. For many people, these scenarios may be a source of worry, but others are oblivious to the financial risks in their future.

People at advanced ages who are in poverty can be classified into four groups: (1) people who were poor when they retired; (2) people who were well-informed, rational planners and were not poor at age 62 but experienced bad luck during retirement; (3) people who were not poor and were rational planners but lived longer than expected and were not adequately insured against that possibility; and (4) people who were not poor at age 62, but, due to human foibles of poor decision-making and misconceptions identified by behavioral economics, have become poor in old age. This categorization helps clarify the reasons why people would benefit from longevity insurance.

Because of these problems, a higher percentage of people at older ages depend on Social Security for most or all of their income than do people in their 60s and 70s. For those age 75 and older, 40 percent depend on Social Security for 90 percent or more of their income, compared to 27 percent of people age 65 to 74.

III. LONGEVITY INSURANCE

Longevity insurance is a special type of annuity. Annuities are financial instruments that pay a stream of benefits over time. A life annuity pays fixed nominal benefits periodically until

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15. Id. at 5.
16. Id.
17. Id.
18. Id.
19. fisher & DeCesaro, supra note 7, at 21.
20. Id.
21. Annuities, SEC. AND EXCHANGE COMM’N (last modified Apr. 6, 2011),
Longevity insurance, also called an “advanced life delayed annuity,” is a deferred annuity that starts at an advanced age, such as 82. Adding longevity insurance to Social Security would address the problem of individuals falling into poverty at advanced older ages by providing cost effective social insurance. While all annuities provide a degree of longevity insurance, in recent years the term has been used to refer to a deferred annuity received at age 80 or older.

This insurance is similar to buying car or home insurance with a large deductible, which optimally deals with catastrophic risk. By analogy, longevity insurance provides insurance against outliving one’s assets, but only when that risk becomes substantial at advanced ages.

The life cycle theory suggests that rational planners may not save for a level of consumption at advanced ages that is equivalent to the level of consumption at earlier ages because of the low probability of being alive at those advanced ages. A longevity


22. Id.
23. Id.
24. Id.
25. Id.
28. Id.
insurance annuity solves that problem by allowing a person, at low cost, to obtain an annuity that only pays benefits at advanced ages.\textsuperscript{31} An advantage of this type of annuity is that a person may be able to consume more of their non-annuitized resources in their 60s and 70s, knowing that they have longevity insurance that protects them if they live longer than their life expectancies.

Annuity benefits can be conceptually divided into two components: old-age benefits and longevity insurance benefits.\textsuperscript{32} Longevity insurance benefits are a hedge against life expectancy risk.\textsuperscript{33} If, hypothetically, a person were certain that he would live to age 80 but faced an uncertain life expectancy after that, then benefits paid up to age 80 would be old-age benefits, and benefits provided after age 80 could be considered longevity insurance benefits. Alternatively, longevity insurance can be thought of as a form of insurance against the financial risk of living longer than one had expected, which could be interpreted for policy purposes as meaning living longer than one’s life expectancy.\textsuperscript{34} More technically, the value of longevity insurance can be determined by calculating the annuity-equivalent wealth.\textsuperscript{35} That is the amount of wealth that would provide the same level of utility as would an annuity of a fixed value.\textsuperscript{36}

The Social Security benefits paid at age 62 are primarily old-age benefits, and provide little longevity insurance at that age.\textsuperscript{37} Benefits paid starting at age 82 contain a large component of longevity insurance for most people.\textsuperscript{38} As life expectancy at age 62 has increased, the longevity insurance that Social Security provides has decreased as a percentage of total benefits.\textsuperscript{39} Thus, a delayed annuity can be designed to largely serve as longevity insurance rather than as retirement savings.

A study conducted by researchers at the National Bureau of Economic Research used a simulation model to show that the percentage of resources that a person would optimally annuitize increases over time during retirement.\textsuperscript{40} For people who have some

\textsuperscript{31} Anthony Webb et al., \textit{An Annuity that People Might Actually Buy}, CENTER FOR RETIREMENT RESEARCH AT BOSTON COLLEGE NO. 7-10, 1 (July 2007), available at https://www2.bc.edu/wei-sun/paper/ib_7-10.pdf.

\textsuperscript{32} Id.

\textsuperscript{33} Id.

\textsuperscript{34} Id.

\textsuperscript{35} Id. at 2.

\textsuperscript{36} Id.


\textsuperscript{38} Id.

\textsuperscript{39} Id.

\textsuperscript{40} Wolfram Horneff et al., \textit{Money in Motion: Dynamic Portfolio Choice in
financial resources invested in equity, they can benefit from equity
premiums early in retirement by gradually reducing their
investment in equity and increasing the amount that is
annuitized.41 A longevity insurance benefit does not follow a
gradual pattern of increasing the share of assets that is
annuitized, but it does capture some of the benefits of that
strategy.42 The authors of that study found that most retirees
would optimally avoid full annuitization until an advanced age,
but by age 80, they would fully annuitize their financial wealth,
with the exception of wealth used for bequests.43 Thus, this
research provides an additional argument in favor of longevity
insurance.

The longevity insurance benefit proposed here is a delayed
annuity paid in the form of a minimum Social Security benefit
starting at age 82. Qualifying persons receiving a Social Security
benefit below a minimum level would have their benefit raised to
the minimum level at that age. This is because a minimum benefit
starting at age 82 is less expensive to provide and is better
targeted than a minimum benefit starting at age 62.

Recognizing this enhanced insurance protection, Social
Security Old-Age Survivors Insurance (OASI) would be renamed
Old-Age, Survivors and Longevity Insurance (OASLI). This
renaming will help to inform people about the benefit. It will
frame the benefit in a positive light, rather than as an anti-poverty
benefit. It will make people aware that longevity insurance
protects retirees against the risk of outliving their resources,
which is a risk associated primarily with advanced older ages.44

B. Life Cycle Planning

In addition to serving as insurance against outliving one's
resources in advanced old age, longevity insurance can simplify
the related problem that retirees face: that of planning for asset
decumulation.45 Many retirees with moderate income have
difficulty managing the spend-down of their assets over a
retirement period of uncertain length.46 The prevalence of this
problem will swell in the future as an increasing percentage of
retirees have 401(k) plans, which do not provide annuities, rather
than defined benefits plans, which do provide annuities.47

Retirement, NATIONAL BUREAU OF ECONOMIC RESEARCH WORKING PAPER NO.
41. Id.
42. Id.
43. Id. at 2-3.
44. Id. at 1.
45. Id.
46. Id.
47. See Kimberly Lankford, Annuities on the Rise in 401(k) Plans,
With a longevity insurance benefit, the problem of asset decumulation with uncertain life expectancy is simplified. Instead of planning for an uncertain period, retirees can plan for the fixed period from the date of their retirement to the date when they start receiving the longevity insurance benefit. Technically, longevity insurance changes their planning problem from one with a stochastic end point (the date of death) to one with a deterministic end point (the date at which longevity insurance begins providing benefits).

As well as assisting in planning, longevity insurance may help people at advanced ages who have difficulty managing their finances. At older ages, people are increasingly likely to need assistance in managing their finances because of declining mental ability and declining health. With longevity insurance, there is nothing to manage concerning the receipt of the benefits because the benefits are handled automatically by Social Security, generally with automatic deposit into their checking accounts. Thus, they have no checks to cash or investments to manage. Longevity insurance benefits are also, to some extent, a substitute for long-term care insurance in that they are payments that coincide with the period in a person’s life when there is an increased risk of needing long-term care.

IV. USING LONGEVITY INSURANCE TO ADDRESS THE PROBLEM

The proposed amendment to Social Security of adding longevity insurance as a benefit would address the problem of poverty among the old-old by providing guaranteed minimum benefits to persons age 82 and older. Much of the utility value of annuitization to workers comes from insuring against the possibility of running resources down to a very low level if one lives to be older than expected.

To help workers use the longevity insurance benefit in planning their spend-down of resources, an annual benefit statement would provide information about longevity insurance to people who would be eligible to receive it in the next five years.

KIPLINGER (June 1, 2012), http://www.kiplinger.com/article/retirement/T003-C000-S001-annuities-on-the-rise-in-401-k-plans.html (stating that most workers do not have the option for annuities with income guarantees in their 401(k) plans).


Many of the options that insurance companies have added to make annuities more attractive reduce the amount of longevity insurance provided to participants.\textsuperscript{50} For example, providing a guarantee of a minimum payment period reduces the value of the longevity insurance component of the annuity. Thus, a decision needs to be made, both by individual participants and by public policy makers, as to the trade-offs between longevity insurance and other aspects of annuities.

Longevity insurance provides the insurance aspects of annuitization at the lowest possible cost. It involves a trade-off between cost and level of benefits early in life. The longevity insurance provided by benefits received at younger ages is of little value. Instead, a large percentage of the longevity insurance can be provided by an annuity that begins payment when the worker is age 80 or older. Thus, workers can reduce the cost of the annuity while maintaining most of the longevity insurance by choosing an annuity that begins payment when they are in their 80s.

One study estimated that, with longevity insurance provided at an advanced age, a substantial share of the longevity insurance provided by an immediate annuity can be obtained.\textsuperscript{51} A deferred annuity starting at age 85 provides over half the longevity insurance of an annuity starting at age 65 (between 56 and 62 percent, depending on the degree of risk aversion), and at a fraction of the cost—roughly 15 percent.\textsuperscript{52} In fact, a household planning to smooth consumption through its retirement would need to allocate only 15 percent of its age 60 wealth to a deferred annuity with payments starting at age 85.\textsuperscript{53} The remainder of the household’s wealth could be held in non-annuitized form to finance consumption from age 60 to 85.\textsuperscript{54}

The longevity insurance benefit would be a price-indexed annuity, just like current Social Security benefits. Thus, the deferred aspect of the annuity would not disadvantage recipients due to a loss of buying power from the annuity.

Longevity insurance could also become an important component of a policy to restore Social Security solvency. Public policy changes likely will reduce the generosity of Social Security old-age benefits in order to restore the program’s solvency.\textsuperscript{55}


\textsuperscript{51} Webb et al., \textit{supra} note 31, at 2.

\textsuperscript{52} Turner & McCarthy, \textit{supra} note 50, at 59.

\textsuperscript{53} Id.

\textsuperscript{54} Id.

Indeed, most reform packages that have been proposed cut social security benefits and therefore raise poverty levels among the elderly. This creates a need to increase the generosity of some benefits to provide better targeting to vulnerable populations. That goal could be achieved by providing longevity insurance benefits. For low-income persons, the effects of benefits cuts later in life when they are least able to work will be moderated. This policy shifts Social Security resources toward persons who are both old and have low incomes. When this policy is enacted within a fixed budget constraint, without enhanced financing for Social Security, it involves a transfer of resources from people who are relatively young (in their early 60s) and well-off to people who are old and poor.

V. PRIVATE SECTOR ALTERNATIVES

Pension plan tax qualification rules make it difficult for 401(k) participants to purchase longevity insurance. The problem arises with the requirement that minimum distributions from 401(k) plans begin by April 1 of the year following the year the person turns age 70 and a half. This requirement prevents a person with a small account balance from using the entire balance to purchase an annuity starting at age 80 or 85. Changes in these minimum required distribution rules have been proposed by the Treasury Department to encourage the purchase of longevity insurance. However, it is unlikely that they will be effective in encouraging such purchases because of the unisex requirement for provision of annuities from 401(k) plans. Males can purchase longevity insurance annuities at considerably more favorable terms outside of a 401(k) plan than within one.

Annuities available through employer-provided retirement plans in the United States must calculate benefits on a unisex basis because of a Supreme Court ruling that found the use of...
gender-based mortality tables in employer-provided pension plans constituted sex discrimination in compensation. In *Arizona Governing Committee for Tax Deferred Annuity & Deferred Compensation Plans v. Norris*, the Supreme Court held that men and women were required to have the same level of annual benefits provided to them by the annuities from their employer-funded pension plans if they were the same age and had the same account balance. Thus, employer-sponsored benefits are required to use the same mortality rates for men and women, despite the fact that women at typical retirement ages live about three years longer than men on average. Annuities that individuals purchase with nonpension funds, and annuities purchased through IRAs, do not have this requirement, and are sold differently depending on the purchaser's gender in nearly all states. Benefit levels provided by unisex single-life annuities are favorable to women but adverse to men, as compared to those provided by gender-based annuities.

In the annuities provided by 401(k) plans, the disadvantages to men of purchasing unisex single-life annuities would be offset to some extent because group annuities offered through employers are priced lower than single annuities in the private market. The net effect on the cost of annuities within the plan versus outside the plan is an empirical question. For example, from the federal government's life tables the United States for 2007, it can be calculated that women age 62 are 35 percent more likely than men of that age to live to age 85. At age 85, women's life expectancy is 17 percent longer than that of men. Thus, when priced using gender-based mortality rates, women's single-life longevity insurance annuities purchased at age 62 and beginning payments at age 85 would cost considerably more than those for men, perhaps as much as 50 percent more, depending in part on interest rates. For this reason, it is likely that men would be able to obtain longevity insurance annuities at a substantially lower cost outside of a 401(k) plan than inside the plan.

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62.  *Id.* at 60.
64.  *Id.* at 1094.
67.  *Id.*
68.  *Id.*
70.  *Id.*
72.  *Id.*
With the voluntary choice of annuities, problems of adverse selection arise, which further increase the disadvantages to men. With adverse selection, people with mortality rates above the group average are less likely to choose annuities than are people with mortality rates below the group average. In the case of unisex annuities, adverse selection results in women being more likely to choose single-life annuities offered by 401(k) plans than men. The outcome of voluntary choice and adverse selection is that the advantage of unisex pricing provided to women is reduced and the disadvantage to men is increased compared to a situation where choice of annuities is mandatory. This occurs because the mortality rate assumed by the annuity provider presumably reflects the fact that men under these circumstances are less likely to choose annuities than women. Thus, the extent to which adverse selection reduces the advantage of unisex annuities to women and increases the disadvantage to men is also an empirical question.

Even ignoring the unisex issue, it is likely that few people would purchase longevity insurance annuities. People are reluctant to purchase annuities that begin payment immediately. They presumably would be even more reluctant to purchase an annuity that begins payment at age 82. With longevity insurance, people have better protection against outliving their resources and ending life in poverty, but the tradeoff is that they have less money to spend earlier in life.

VI. BENEFIT PAYMENT STRUCTURES

Longevity insurance benefit payments can be structured in different ways, at different costs, and with different goals being served. Benefits can be universal or they can be targeted. Universal benefits provide longevity insurance without regard for an individual’s need, while targeted benefits take need into account. Because they are targeted, they can be provided at a

73. Id. at 61.
74. Id.
75. Id.
76. Id.
77. Id.
78. See Andrew L. Gespass, Longevity Insurance: Financial Product for the Ages, J. FIN. PLAN. (2013), http://www.fpanet.org/journal/BetweentheIssues/LastMonth/Articles/LongevityInsuranceFinancialProductfortheAges/ (examining the likelihood of an individual purchasing longevity insurance as well as the benefits of doing so).
79. Id.
lower total cost.\textsuperscript{82} Within those two categories for benefit eligibility, benefits can be based on Social Security benefit levels, years of contributions to Social Security, age, or they can be flat benefits, set at the same amount for everyone who qualifies.\textsuperscript{83} For example, it the benefit is universal, everyone age 82 and older could receive the same flat amount. Alternatively, everyone age 82 could receive the same amount, but that amount would increase slightly more than the rate of inflation for subsequent years. If the benefit is targeted, it could be based on having worked a minimum number of years, with the amount increasing based on the number of years actually worked.

While the various options would provide longevity insurance in different ways, the next section picks a targeted option that appears to be desirable, and then calculates a rough estimate of its costs.

VII. TARGET POPULATION

The level of benefits provided by longevity insurance would be based on quarters of contributions to Social Security. A minimum of 20 years (80 quarters) of contributions would be required. At that level, a benefit of 70 percent of the poverty level for a single or married person, depending on the Social Security benefit received, would be provided. Under this particular approach, for each additional four quarters, the benefit would increase by 1.5 percent, so that someone who had worked 40 years (160 quarters) would receive a benefit equal to 100 percent of the poverty level. There would be no maximum number of quarters, so that someone who worked 45 years would receive a benefit at 107.5 percent of the poverty level.

\begin{table}[h]
\centering
\begin{tabular}{|l|c|}
\hline
Number of years (quarters) of covered work & Benefit as a percent of the poverty level \\
\hline
20 years (80 quarters) & 70\% \\
30 years (120 quarters) & 85\% \\
40 years (160 quarters) & 100\% \\
45 years (180 quarters) & 107.5\% \\
\hline
\end{tabular}
\caption{Relationship between number of years of covered work and benefit level for the longevity insurance benefit}
\end{table}

Source: Author's calculations

This benefit formula supports the principle that Social Security rewards work. It also establishes the principle that a poor person who has worked for many years and has contributed to

\textsuperscript{82} Id.
\textsuperscript{83} Id.
Social Security is guaranteed a minimum level of income, and the dignity associated with that, in advanced old age. The counterargument to this is that people with low lifetime earnings tend to have more years of zero earnings, and therefore contribute less to Social Security, than people with higher lifetime earnings. For example, people in the lowest quintile of family lifetime earnings have on average 9.1 years of zero earnings, compared to 2.4 years in the second lowest quintile. However, this should not be enough to deny a poor person at least a poverty-level benefit in advanced old age.

Divorced people are treated by Social Security as though they had the advantages of economies of scale in living expenditures inherent in living with another person. They receive the same benefit as do married people. Therefore, longevity insurance would help divorced people whose former spouses are still living.

The benefit eligibility conditions of Social Security-provided longevity insurance are designed to exclude people with low benefits for reasons other than a full career with low earnings. First, recipients receiving a low benefit with less than 80 quarters of covered earnings would be excluded. Second, recipients receiving benefits from pension plans in non-covered employment in the federal, state, or local governments would be excluded. Thus, people would be excluded if they were affected by the Government Pension Offset, which reduces the spouse’s benefit for spouses who have a government pension and were not covered by Social Security, and who were affected by the Windfall Elimination Provision, which reduces the Social Security benefit for persons who have a government pension and were not covered by Social Security. The amount of the benefit would vary depending on the minimum benefit level established and the benefits already received by persons receiving low Social Security benefits.

The longevity insurance benefit would improve the progressivity of Social Security. It would do so by shifting resources toward a subset of low-income persons. It would also provide insurance against negative shocks, such as unemployment late in life or bad health, that cause some people to have low Social Security benefits.

Additionally, longevity insurance provided automatically to a broad group of people at a distant point in the future avoids the problem of adverse selection. When such insurance is purchased

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84. Sarney, supra note 55, at 3-4.
85. Turner, supra note 81, at 13.
86. Id.
87. Id. at 12.
88. Id.
privately, presumably only people with long life expectancies purchase it, which drives up its price due to adverse selection.89

While a pure longevity insurance benefit would provide benefits to everyone reaching the target age, the longevity insurance benefit proposed here also insures against low benefits in old age because it is a benefits-tested benefit. However, it does not consider all of the resources available to older persons, but rather only their Social Security benefits. The advantage of this approach is that payment would be automatic, without requiring the recipient to apply for it. Thus, there would not be a problem with a low take-up rate among the targeted population. An estimated 40 percent of the elderly who are eligible for Supplemental Security Income (SSI) benefits do not apply for them.90 Declining cognitive ability may contribute to a low take-up rate at advanced older ages.91

Longevity insurance would help make up for the shortcomings of SSI, and could replace it altogether for the target age group. Further, it would not be stigmatized like SSI, given that the benefit would be described as a form of insurance, rather than as an anti-poverty benefit. It would not be as targeted a benefit as if all resources were considered as a qualifying condition, but an administrative process that would take everything into account would be both expensive and intrusive. Thus, although targeting is never perfect, it appears that the benefit would be targeted reasonably well.

VIII. OTHER GROUPS AFFECTED AND OTHER CONSEQUENCES

The children of those people who would be eligible for longevity insurance would be affected by the implementation of the benefit because they would have less financial responsibility for their low-income parents.92 Provision of longevity insurance may affect family relationships; it may empower the poor elderly and raise their social standing within their families.

Because this benefit provides a form of insurance, it affects potential beneficiaries as well as actual beneficiaries because it provides insurance to a person with low Social Security benefits even if that person or his or her spouse does not live long enough to receive the benefit.93 While the probability that a single person

89. Id. at 13.
91. See Pessin et al., supra note 48 (describing the decline in mental abilities as individuals grow older).
92. Turner, supra note 81, at 14.
93. Id.
would survive to receive the benefit is roughly 50 percent, the probability that at least one person in a couple would survive to receive it is higher. 94

In a broader philosophical sense, the insurance would benefit all Americans. Although an average person at age 50 may not feel like he or she would ever directly benefit from such insurance, it is important to remember that that same person could very easily become less than average. For example, he or she could lose a job or suffer from serious health problems, in which case, longevity insurance would benefit him or her greatly later in life.

On the other hand, some may argue that the provision of longevity insurance, which guarantees minimum benefits, reduces the incentive to save for people who anticipate that they will qualify for such benefits. However, because the qualifying condition is the level of Social Security benefits at age 82, the likelihood of people deciding not to save in order to qualify would be minimal. For example, a person could retire at age 62 rather than at age 65, which would qualify him or her for a higher benefit at age 82, but this would come at the cost of lower benefits for the preceding 20 years. Most people will not accept this trade-off. Thus, it is unlikely that there will be a negative unintended consequence of people leaving the workforce prematurely.

Additionally, raising the level of Social Security benefits could mean that some people no longer would be eligible for Food Stamps, Medicaid, housing allowances and other programs for low-income persons. 95

Another counterargument to the provision of longevity insurance is that picking the age of 82 would be unfair to African Americans because of their shorter life expectancy. 96 However, as people grow older, the difference in life expectancies between races becomes less, and at age 65 the life-expectancy difference between white women and African American women is less than two years. 97 In fact, at age 65, the difference in life expectancies between males and females is greater than the difference between African Americans and whites. 98

Another possible consequence of government-provided longevity insurance would be that such insurance would displace privately-provided longevity insurance offered by insurance companies. 99 However, this outcome appears unlikely given the low-purchase of annuities generally, and in particular the low

94. Id.
95. Id. at 15.
96. Id.
97. Id.
99. Turner, supra note 81, at 15.
purchase of annuities by the target population.\textsuperscript{100} Because this
benefit would be provided universally to the target population,
which is comprised of people with low- to moderate-income, it
would not be affected by adverse selection, which affects the
provision of annuities in voluntary markets.\textsuperscript{101}

In fact, it could be argued that the provision of longevity
insurance by the government for Social Security beneficiaries with
low benefits would encourage the demand among higher-income
retirees for private longevity insurance. The example set by the
government could serve as an endorsement that would encourage
higher-income persons to consider obtaining such insurance
through their 401(k) plans or to purchase it privately.

Because political support tends to be greater for social
insurance than for public assistance, there may be greater political
support for adequate benefits through longevity insurance than
through Supplemental Security Income.

\section*{IX. Cost Estimate}

In 2004, there were 7.3 million persons age 80 and older
receiving Social Security benefits in the United States.\textsuperscript{102} The
poverty threshold for a single person age 65 and older in 2004 was
\$9,060.\textsuperscript{103} Roughly 24 percent of Social Security beneficiaries age
80 or older had annual benefits less than the poverty threshold,
while roughly 11 percent had annual benefits at less than 70
percent of the poverty threshold\textsuperscript{104} (based on interpolation, Table 2).
Thus, roughly 1.75 million were below the poverty line.\textsuperscript{105}

A 1993 study indicated that, of the retired Social Security
beneficiaries living in poverty, 42 percent had worked between 21
and 40 years and 10 percent had worked for 41 or more years.\textsuperscript{106}
More recent data for benefit recipients in 2004 indicated that less
than 20 percent of recipients had less than 20 years of covered
earnings.\textsuperscript{107} Thus, if 80 percent of the target population age 82 and
older had at least 20 years of service, that population in 2004
would have been less than 1.4 million. As such, for cost-calculation

\begin{thebibliography}{9}
\bibitem{100} Id.
\bibitem{101} Id.
\bibitem{102} Fisher & DeCesaro, supra note 7, at 21.
\bibitem{103} Poverty Thresholds 2004, U.S. CENSUS BUREAU (Sept. 12, 2012), http://
\bibitem{104} Turner, supra note 81, at 15-16.
\bibitem{105} Id.
\bibitem{106} Peter A. Diamond & Peter R. Orszag, Saving Social Security: A
Balanced Plan, THE BROOKINGS INSTITUTION POLICY BRIEF NO. 126, 6 (Dec.
2003), available at http://www.brookings.edu~/~/media/research/
\bibitem{107} W.D. Pfau, How Representative Are Representative Workers? An
Assessment of the Hypothetical Workers Commonly Used in Social Security
Studies, 18 J. INCOME DISTRIBUTION 2, 92-117 (2009).
\end{thebibliography}
purposes, we can assume that there would be approximately 1.4 million people eligible for longevity insurance.

The level of the longevity insurance benefit received depends on the level of the person’s Social Security OASI benefit and the number of years the person or the person’s spouse (if he or she is eligible for survivor benefits) worked.108 The data in Table 2 suggest that the average benefits would be less than $3,000 a year. If these people received a supplemental benefit that averaged $3,000 a year, the cost would be approximately $4.2 billion a year. It should be stressed that this figure is rough, but it does indicate approximate cost. For perspective, the annual cost of this benefit would be less than half of the monthly cost of the Iraq war.

<table>
<thead>
<tr>
<th>Annual Social Security benefit level (dollars)</th>
<th>Percent of recipients</th>
<th>Cumulative percent of recipients</th>
<th>Cumulative percent of recipients below the poverty line</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-999</td>
<td>0.6%</td>
<td>0.6%</td>
<td>2.5%</td>
</tr>
<tr>
<td>1,000-1,999</td>
<td>0.6</td>
<td>1.2</td>
<td>5.0</td>
</tr>
<tr>
<td>2,000-2,999</td>
<td>0.8</td>
<td>2.0</td>
<td>8.3</td>
</tr>
<tr>
<td>3,000-3,999</td>
<td>1.2</td>
<td>3.2</td>
<td>13.3</td>
</tr>
<tr>
<td>4,000-4,999</td>
<td>2.3</td>
<td>5.5</td>
<td>22.9</td>
</tr>
<tr>
<td>5,000-5,999</td>
<td>3.5</td>
<td>9.0</td>
<td>37.5</td>
</tr>
<tr>
<td>6,000-6,999</td>
<td>4.5</td>
<td>13.5</td>
<td>56.25</td>
</tr>
<tr>
<td>7,000-7,999</td>
<td>5.6</td>
<td>19.1</td>
<td>80.0</td>
</tr>
<tr>
<td>8,000-8,999</td>
<td>4.8</td>
<td>23.9</td>
<td>100.0</td>
</tr>
<tr>
<td>9,000-9,999</td>
<td>7.4</td>
<td>31.3</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Social Security Administration (2006)109

The choice of a level of benefits involves trade-offs between budgetary considerations with more generous benefits and social welfare considerations with less generous benefits. Setting a benefit at less than the poverty line for workers with less than a full career of work reflects the thinking that Social Security is not intended to be the sole source of income for older persons, even though statistics indicate that it is just that for many older persons.110 Basing the level of benefits on the current poverty line recognizes the reality that that is the poverty measure used in the United States, flawed though it may be. If, in future years, the United States adopts a new poverty standard, then at that time

110. Turner, supra note 81, at 17.
policymakers might consider using that standard for setting the level of the longevity insurance benefit.

An alternative benefit formula for the longevity insurance benefit would provide benefits that were a percentage increase of the person’s benefit at age 82, with the increase rising in accordance with years of covered work.\footnote{Id.} There would be a maximum combined longevity insurance benefit and regular OASI benefit. For example, the percentage increase could be 20 percent for workers with 20 years of coverage, increasing by 1.5 percentage points for every additional year of service. This approach would tie the longevity insurance benefit more closely to the OASI benefit. For people with low benefits, it would result in a smaller benefit increase, and in that sense it would be less well targeted.

As life expectancy at age 65 continues to improve over time, the qualifying age of 82 will be life expectancy indexed, increasing with increases in life expectancy. For example, if life expectancy at age 65 increases by one year, the qualifying age will be raised to 83.\footnote{Id.} For each birth cohort, its qualifying age for life expectancy insurance benefits will be set at age 62, so that retirees will know what the qualifying age is when they receive their Social Security benefits.

X. U.S. AND INTERNATIONAL EXPERIENCE

Longevity insurance annuities, which have only been available since about 2005, are provided in the U.S. private sector by a few life insurance companies, namely MetLife, Hartford, and New York Life Insurance Company.\footnote{J. Mark Iwry & John A. Turner, Automatic Annuitzation: New Behavioral Strategies for Expanding Lifetime Income in 401(k)s, RETIREMENT SECURITY PROJECT, 20 (July 2009), available at http://www.brookings.edu/~media/research/files/papers/2010/1%20annuitization%20iwyry/07_annuitization_iwry.pdf.} If a 65-year-old man in 2008 invested $100,000 with MetLife’s Longevity Income Guarantee annuity (the maximum benefit without death benefit) he would receive $83,000 a year starting at age 85.\footnote{Kelly Greene, How to Bulletproof Your Nest Egg, WALL ST. J. (June 1, 2012), http://online.wsj.com/article/SB121259350492445223.html.} Inflation protection and a return of premium guarantee can increase the premium by as much as 50 percent.\footnote{Id.}

The United Kingdom provides a small old age allowance to persons age 80 and older, called the Old Person’s Pension.\footnote{Social Security Administration, United Kingdom, SOCIAL SECURITY PROGRAMS THROUGHOUT THE WORLD, 312 (2012), available at http://www.ssa.gov/policy/docs/progdesc/ssptw/2012-2013/europe/united_kingdom.pdf.}
Eligibility is based on years of residence in the United Kingdom and the receipt of a low social security pension, which means less than 60 percent of the full basic state pension—a pension based on years of contributions. Ireland pays a benefit of about $800 per year at age 80, called the Age 80 Allowance. That benefit is automatically received by persons receiving Irish social security pensions once they turn 80. Italy has a special supplement for low-income persons age 75 and older. The Riester pensions in Germany are voluntary defined contribution plans that were enabled by a 2001 reform, taking effect in 2002. They require that, at retirement, the participant purchase a longevity insurance annuity that begins payment at age 85. Hong Kong provides a noncontributory old-age benefit that is means-tested at age 65, but that becomes a flat old-age benefit for all persons at age 70. It has been advocated that longevity insurance annuities play a major role in individual account private pension systems. In 2011, India raised benefits for Social Security participants age 80 and older to help protect them from the effect of price level increases.

U.S. Social Security OASI has provided a minimum benefit in the past, but not a longevity insurance benefit. The benefit was available to workers taking Social Security benefits at the early retirement age or at any later age. Because it was not well targeted to low-income workers with long careers of covered

117. Id.
119. Id.
122. Id. at 13.
126. Turner, supra note 81, at 22.
127. Id.
employment, it was eliminated for beneficiaries becoming entitled in 1982 or later. A more targeted minimum benefit was created in 1972 and still exists, but it is being phased out. There have been proposals for a new minimum benefit that would require at least 20 years of covered work and would increase in value for each additional year of covered work, reaching 100 percent of the poverty threshold for workers with 35 years of covered work.

XI. Sensitivity Analysis

Providing a higher guaranteed minimum benefit or providing it to more people would increase the cost of longevity insurance. Lowering the age limit would likewise raise the cost. Conversely, requiring more than 80 quarters of covered work, which would limit the benefit to people with longer work histories and their survivors, would lower the cost. Having an earnings test or asset test, rather than having the only qualification test be whether the individual receives Social Security benefits, would lower the cost in benefits paid but raise the administrative cost. Indexing the age limit for increases in life expectancy would lower the cost of the benefit. Setting a maximum amount by which the longevity insurance benefit could increase the OASI benefit would reduce the cost. For example, the maximum longevity insurance benefit could be set at $5,000 a year.

Integration with Supplemental Security Income (SSI) is one issue facing the implementation of longevity insurance. If SSI was the first payer, the longevity insurance benefit would be based on the total of the person’s Social Security benefit and SSI benefit, which would lower the cost to Social Security and shift part of the cost onto general revenue funds. A similar issue arises for Veteran’s pensions, which are pensions for low-income veterans.

XII. Alternative Approaches

A result similar to the provision of longevity insurance could be reached through the utilization of Supplemental Security

128. Id.
130. See id. at 102-03 (proposing a benefit enhancement that would result in an almost 12 percent benefit increase).
131. Turner, supra note 81, at 23.
132. Id.
133. Id.
134. Id.
135. Id.
136. Id.
137. Id.
138. Id.
139. Id.
Income, specifically by raising the level of benefits it provides for persons age 82 and older.\textsuperscript{140} However, the longevity insurance approach would be simpler to administer and would not be stigmatized like SSI. The benefit would be viewed as a form of insurance rather than as a government dole.\textsuperscript{141}

Survivors’ benefits could also be raised to achieve a similar result, but those would be less targeted and thus more expensive.\textsuperscript{142} Longevity insurance would be better targeted to people with long service in the workforce who received low Social Security benefits and who had reached an advanced age.\textsuperscript{143}

Furthermore, minimum benefits could be raised with the same qualifying conditions, except for age, with the benefits being available earlier, such as at age 62. Yet, it would be better to target longevity by age. As life expectancy continues to increase, age 62 becomes a relatively younger age, compared to expected age at death.\textsuperscript{144} Additionally, providing minimum benefits at an earlier age would be more likely to have adverse incentive effects for older workers to remain in the workforce.\textsuperscript{145} While people in their 60s and even in their 70s may be able to continue working, people in their eighties likely cannot.\textsuperscript{146}

A concern that might be raised is that this policy would lead to an eventual expansion of the minimum benefit to younger age groups. In fact, with this proposal, the age limit would be raised over time in line with increases in life expectancy at age 65 to preserve its role as longevity insurance. Lowering the age limit would move the benefit toward being an old-age benefit rather than longevity insurance. For example, lowering the age limit by providing a minimum benefit at age 62 would have adverse incentive effects on the labor supply and savings of older low-income workers.\textsuperscript{147}

\textbf{XIII. CONCLUSIONS}

People with low Social Security benefits who are in their 80s are a particularly vulnerable group. At that age, few are able to compensate for their low benefits by working. As a matter of national policy, it is desirable that people in this age group, often called the old-old, are able to live with sufficient resources so that they are able to enjoy the last years of their lives with dignity.

The target population for the proposal discussed here is...
people age 82 and older with low Social Security benefits and long work histories. Age 82 is chosen as approximately the average life expectancy at age 65. Elderly poverty is particularly high among this age group—a third higher than for people age 65 to 69. People in this age group are particularly at risk of falling into poverty even though they had not been in poverty earlier in their lives. They also have greater difficulty leaving poverty than younger retirees.

A minimum benefit starting at age 82 is less expensive to provide, and is better targeted, than a minimum benefit starting at age 62. Longevity insurance benefits are also, to some extent, a substitute for long-term care insurance in that they are payments that coincide with the period of an increased risk of needing long-term care. Longevity insurance would help make up for the shortcomings of SSI, and could replace it for the target age group. Further, it would not be stigmatized, given that the benefit would be described as a form of insurance, rather than as an anti-poverty benefit.

Longevity insurance can be an important component of a policy package to restore Social Security solvency. Public policy changes likely will reduce the generosity of Social Security old-age benefits to restore solvency. If general benefit reductions, such as through longevity indexing of benefits as of retirement age, are combined with a new longevity insurance benefit, it may be possible to retain much of the longevity insurance Social Security provides for low-income persons. For these individuals, the effects of benefit cuts later in life when they are least able to work will be moderated. This policy shifts Social Security resources toward persons who are both old and have low incomes. It involves a transfer of resources from people who are young and well-off to people who are old and poorly off.

Longevity insurance would be particularly desirable if a benefit cut disproportionately affected people at older ages. It would be particularly valuable, for example, if the cost-of-living adjustment is changed, such as by using the chained Consumer Price Index (CPI), so that the indexing is reduced. That change would disproportionately affect people at older ages because the effect would be compounded as they grew older.