June 13, 2012

To: The U.S. Department of Labor's Advisory Council on Employee Welfare and Pension Benefit Plans

From: Olivia S. Mitchell
Professor of Insurance & Risk Management, and Business Economics & Policy
Director, Pension Research Council and Boettner Center for Pensions & Retirement Security
The Wharton School, University of Pennsylvania

I welcome this opportunity to appear before the ERISA Advisory Council to discuss the topic "Examining Income Replacement during Retirement Years in a Defined Contribution Plan System." I am a faculty member of the Wharton School at the University of Pennsylvania, and I am also Director of the Pension Research Council, the oldest academic research organization in the United States.

My more than 30 years of research, teaching, and advising in this field lead me to the following conclusions:

- Payout annuities are valuable insurance products that help protect against the older population against longevity risk – the chance that people live so long that they outlive their retirement assets;
- There is substantial need for payout annuity products, particularly as Baby Boomers move into retirement;
- Nevertheless many workers do not properly value or seem to appreciate the importance of lifetime income;
- Accordingly, policies to enhance their appeal may be needed;
- Increased financial literacy and education for participants may be helpful, along with greater transparency and standardization in the lifetime income product marketplace;
- Pension plan sponsors will be more likely to offer payout products with longevity protection if additional safe harbor provisions and guidelines are made available.

In my Statement, attached, I focus on specific questions posed by the Council, and I draw from a variety of sources including many of my papers, listed at the end of this document. This statement represents only my own views and not those of co-authors or institutions with which I am or have been affiliated. Thank you for your kind attention. Additional questions may be sent to me at mitchelo@wharton .upenn.edu.

Sincerely yours

Olivia S. Mitchell

Statement of Olivia S. Mitchell
Professor of Insurance & Risk Management, and Business Economics & Policy
Director, Pension Research Council and Boettner Center for Pensions & Retirement Security
The Wharton School, University of Pennsylvania

1. What options could be made available to plan participants to best utilize their account balance(s), and to facilitate the goal of securing a stream of income over the elected period designated by the participant?

Annuity benefits that provide periodic and regular income for the remainder of one's life are useful in several ways. They help participants draw down their assets so as to minimize or eliminate running out of money due to longevity risk. They can also be a convenient tool for participants seeking an income stream from a pool of saving. In this context, guaranteed lifetime income benefits protect beneficiaries from outliving their assets so they will be less likely to be destitute in old ages. Additionally, a steady stream of income benefits the financially less literate who are unable to budget and plan effectively, and older retirees who may lose the ability to manage their finances will be better protected against mis-selling of financial products.

Disadvantages of lifetime annuities include the fact that that buyers must trust financial providers to remain solvent, to provide benefit flows that are inflation-protected, and that are not eroded by fees and charges. Also, a subset of retirees may be already sufficiently well-covered by pre-existing annuities (via Social Security and defined benefit pensions), and hence this group will not need additional annuitization from their defined contribution plans. Moreover, some retirees strongly desire to leave a bequest for their heirs, reducing the amount they can annuitize.

It is unusual for defined contribution plans today to offer annuities in the current payout environment. Some provide a means for participants to take minimum distributions as required by law, though a common approach seems to be to roll over the funds to an IRA and then use some withdrawal rule of thumb (e.g. 4% per year). This does not provide longevity risk protection. Defined benefit plans traditionally only offered an annuity option but currently a great many offer lump sum payouts which participants tend to take. Ultimately, enlightened plan sponsors will view plan education and advice as central to helping participants spend their retirement assets wisely, in all types of plans.

There are Many Possible Phased Withdrawal Payout Options:

Here we provide an example of a 65-year old male retiree and compare expected benefits (conditional on survival) payable from a <u>simple lifetime annuity</u> versus four alternative <u>phased withdrawal plans</u> given an initial asset balance:[1]

- **Constant fraction rule**: e.g. x% of the remaining balance each period – simple
- **1/T withdrawal rule**: if T is life expectancy, fraction rises with age
- **1/E[T(x)] withdrawal rule**: T keeps updating (e.g. remaining life expectancy) so fraction rises more slowly with age (used by IRS)

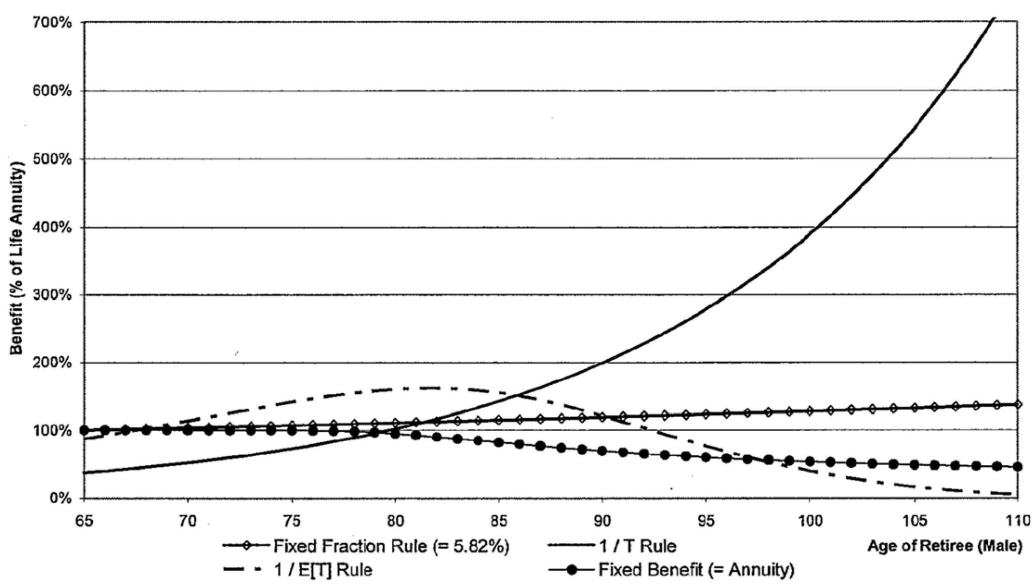
[1]Taken from Dus, Ivica, Raimond Maurer, & Olivia S. Mitchell, "Betting on Death and Capital Markets in Retirement: A Shortfall Risk Analysis of Life Annuities versus Phased Withdrawal Plans." <u>Financial Services Review</u>. (14)2005: 169-196. Assumes 50/50 stocks and bonds and no uncertainty regarding mortality tables.

- **Fixed Benefit** rule: with annual payment equal to that provided by the simple lifetime annuity.

One way to look at these is to compare the probability of the Expected Benefit exceeding the fixed annuity (Figure 1): Here we see that first-year benefits are the same under the fixed annuity and fixed benefit rule (by construction); and almost the same as with the fixed fraction rule. Benefits initially under the 1/T rue are lower.

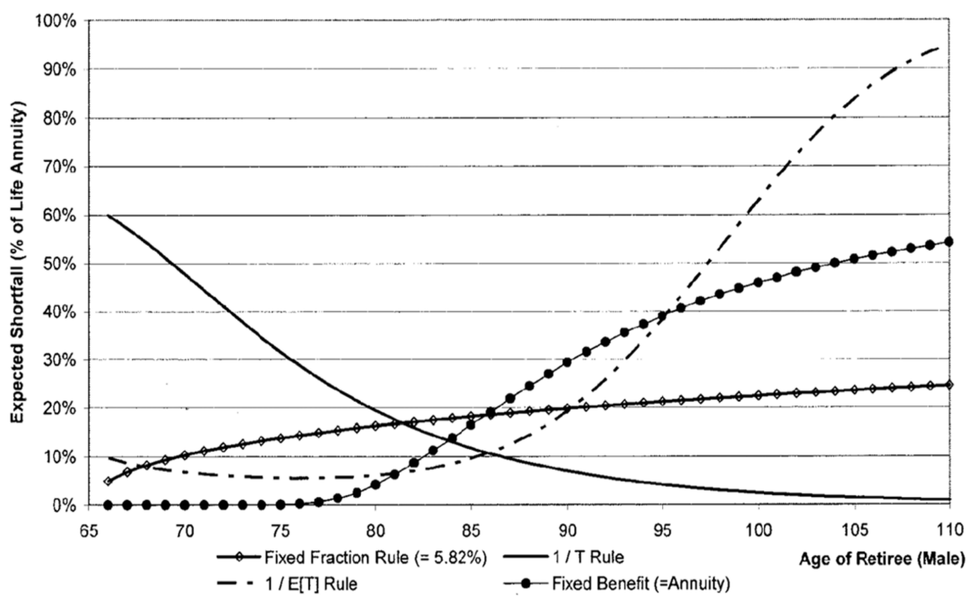
Since the 1/T rule pays out less early on, it will pay more later. The Fixed benefit and 1/E[T] rules pay much less later in life

Fig. 1. Mean benefit of withdrawal plan conditional on survival (50% equities/50% bonds): life annuity benchmark *(Dus et al. / Financial Services Review 14 (2005) 169–196)*



Another way to look at it is to evaluate the Shortfall Expectation: it takes into account both probability and severity? (Figure 3)
The Shortfall Expectation (SE) is again compared to the annuity benefit amount. It represents the product of the shortfall probability and the conditional expected shortfall given the occurrence of a shortfall.

Fig. 3. Expected shortfall of withdrawal plan conditional on survival (50% equities / 50% bonds): life annuity benchmark *(Dus et al. / Financial Services Review 14 (2005) 169–196)*



Comments:

- The Fixed Benefit rule has a very low shortfall expectation through about age 83, but it then rises substantially at older ages.
- The 1/*T* rule is initially the riskiest (with a 60% SE) and it takes until age 90 for the risk of this rule to fall to negligible
- The Fixed Fraction and the 1/E(*T*) rules both have SEs below 20% through at least age 80, but the 1/E[*T*] rule has the highest expected shortfall for the long-lived individual.

In additional analysis we evaluated “mixed” strategies – e.g. a fixed withdrawal rule for some years, followed by a mandatory annuitization at (e.g.) 75 or 85.

- We find that the 1/*T* rule and the fixed benefit rule both are appealing, particularly when combined with a mandatory deferred annuity.
- Some countries such as Singapore have recently mandated deferred annuities that should be sufficient to pay the government-set poverty or subsistence income level; the remainder of one’s account can be taken out as a lump sum if desired.

2. What factors should the participant consider with respect to income replacement options described above?

- *Individual factors*: health, risk aversion, relevant life table, other sources of old-age income (including housing, financial wealth, human capital, insurance, government benefits), desire to leave something to heirs via a bequest;
- *Fees and charges* of the various products;
- *Provider factors*: how safe is the guarantee provider (rating, etc)

I would also note that partial/no annuitization may be suitable for someone with a generous defined benefit plan or for whom Social Security already provides a high replacement rate. Also, annuitization could have an unintended and perhaps undesirable effect of raising retirement income to the level where some retirees may become ineligible for government benefit programs (e.g. Medicaid, SSI). On the other hand, if Social Security benefit growth is to be curtailed, given the program’s financial problems, the value of annuitization can be expected to grow.

3. What are the risks plan sponsors face with respect to certain options, and how can these risks be minimized?
To date the payout products are difficult to compare and hard to assess in terms of their "money's worth." It would be useful to have a common metric to compare these with each other, as well as products including guaranteed lifetime/minimum withdrawals benefits. The patchwork of state insurance laws and guarantee funds also makes it difficult for plan sponsors and participants to figure out and value insurers' credit-worthiness.

4. What are the factors to be considered by the plan sponsor regarding the options to be offered under the plan, such as participant demand, product portability risks, and fee structure?
Today most employees will change jobs several times over their careers, making it difficult for plan sponsors to justify costs for a guarantee from which few workers may benefit. Lifetime payout guarantees may be most suitable for older workers and retirees seeking to buy the guarantee and who wish to convert their balances to guaranteed income streams at retirement. These could be offered only on a voluntary choice basis, given the features' costs. Having an in-plan option for annuitization is likely to be less expensive than retail purchase; there is less adverse selection and the potential for scale economies will make the product cheaper. On the other hand, if the in-plan annuity is priced using unisex tables, this may make it less attractive to men than to women.

5. **In considering education alternatives with respect to income replacement, what role should an employer play with respect to retirement savings held outside of the employer-sponsored plan?**
Participants may make a number of errors; for instance they may believe they can invest 'better" than the plan sponsor and overestimate their expected returns; they may not fully understand that sponsor fees and charges may be less than what they pay managing the money on their own. Also financial advisers may recommend taking their lump sums instead of annuitizing, so they can earn commissions on the money management. Participants also tend to underestimate the chance they will live very long lives, hence not be aware of the benefits of longevity risk protection; conversely they suffer from lump-sum illusion, thinking that a small accumulation will be sufficient to live on for a long time. In many cases annuity products are very complex, with numerous riders and fees, making the products difficult to understand for the average worker. Moreover, those with small account balances will find that annuitization will not pay large benefits.

To encourage participants to do more to elect lifetime income instead of lump sum payouts, plan sponsors could:

- Increase participants' awareness of longevity risk using benefits calculators that emphasize "tail" survival risk, instead of focusing on life expectancy;
- Encourage annuitization in both defined benefit and defined contribution plans with tax advantages, particularly if the payouts are inflation indexed;
- Clarify safe harbor practices for plan sponsors seeking to include annuities as default payout options.

Nevertheless, most retirement income decisions today are likely to utilize nonguaranteed or portfolio-based solutions rather than annuity contracts. I believe that using employer and/or employee nonelective contributions to purchase deferred annuities would be an attractive idea to make sure part of the retirement accumulations take the form of an annuity. On the other hand, though behavioral economics and finance studies find that "default" provisions such as auto-enrollment and target maturity date investments help participants accrue more retirement wealth, there is little evidence on defaults for the payout phase. I do worry that default provisions may be insufficient to get the assets to "stick" in payout products without investment in education and information regarding longevity risk.

Selecting as a default the lifetime income benefit would likely have an important impact on how people manage their retirement payouts. Whether it would also have an impact on individual employee contribution rates is unknown. Some workers could raise contribution rates if they believed their current contribution levels (and/or investment returns) were insufficient to fund retirement payouts. Others might conclude that the lifetime income products provided enough to establish an acceptable standard of living in retirement thereby freeing them to redirect some of their savings to other purposes.

6. What fee disclosure requirements would apply for providers/plan sponsors to participants with respect to income replacement options?

Economic models show that the optimal demand for annuitization depends on households other assets (defined benefit and social security benefits, housing assets, financial assets, insurance), human capital (susceptibility of labor income to shocks including health shocks), risk aversion, and bequest intentions. It would be useful to provide participants with a calculator that can help assess retirement income needs taking all assets and liabilities into account, to help understand the need for additional annuities. It would be useful to ask plan sponsors of defined contribution plans to report to participants what their annual income benefits might be from their account balances, so that participants would have a better idea of the potential retirement income streams from their accruals to date.[2]

Interest rate and load assumptions should be the same as used in generating estimated lifetime income benefits. In my view, it would be helpful to present both immediate and deferred payouts given current accruals would be most useful, as well as projections assuming current contributions continue to some future date (e.g. the normal retirement age under Social Security). Each estimate would of course need to be caveated with a statement that contributions and benefits are not guaranteed. Moreover, research suggests that many participants do not understand percentages, so replacement rates in retirement are not likely to be maximally informative. Also plan calculations generally ignore Social Security, private saving, and other sources of retirement income, as well as household liabilities (for heathcare/long term care costs). For this reason an individual benefit statement could be wildly off target, without participant sign-off to include the other sources of retirement income.

---

[2] Of course it would be necessary to provide 'safe harbors' to plan sponsors regarding standardized assumptions when projecting income payouts. It would be essential to also indicate the risks of annuitization including the loss of access and liquidity, decline in flexibility, and company default risk. In my view, both monthly and annual payments would be useful regarding payout options. Also both single life and joint/survivor options should also be depicted, along with the impact of taking early versus deferred benefit payments.

Participants tend to underestimate their chances of survival to age 85, implying they will undersave and under-annuitize. Accordingly more information could be provided regarding survival probabilities to very old ages, how much it costs to remain retire many years, what Social Security benefits might be and how much more they will be if retirement is deferred, and how expensive healthcare (including long-term care) might be. This will make annuities more salient and a logical solution to the longevity risk problem. This information can be provided via on-line calculators, employer education seminars, and webinars.

7. What unique considerations, if any, would be required by the fiduciary for any of the options being offered? And 8. Do the fiduciary concerns interplay with other potential barriers, and if so, what are those barriers?

As I am not a legal expert, I cannot opine on fiduciary matters directly. It does seem that a disadvantage from the plan sponsor's perspective is that the sponsor will likely have some fiduciary liability for the in-plan option. It would therefore be necessary to clarify who bears the costs of selecting the provider, etc.

Selected Related Studies

Ameriks, John and Olivia S. Mitchell. 2008. Recalibrating Retirement Spending and Saving. Oxford University Press.

Blitzstein, David , Olivia S. Mitchell, & Stephen P. Utkus, eds. 2006. Restructuring Retirement Risks. Oxford University Press.

Brown, Jeffrey R., Arie Kapteyn, Erzo Luttmer, & Olivia S. Mitchell. 2011. "Do Consumers Know How to Value Annuities? Complexity as a Barrier to Annuitization." Working Paper.

Brown, Jeffrey R., Arie Kapteyn, & Olivia S. Mitchell 2011. "Framing and Claiming: How Information-Framing Affects Expected Social Security Claiming Behavior." NBER WP 17018.

Brown, Jeffrey, Olivia Mitchell, James Poterba, & Mark Warshawsky. 1999. "Taxing Retirement Income: Nonqualified Annuities & Distributions from Qualified Accounts". National Tax Journal.1999: 563-592.

Brown, Jeffrey, Olivia S. Mitchell, James Poterba, & Mark Warshawsky. The Role of Annuity Markets in Financing Retirement. MIT Press, 2001.

Brown, Jeffrey, Olivia S. Mitchell, & James Poterba. "Mortality Risk, Inflation Risk, and Annuity Products." 2002. In Innovations in Financing Retirement., eds. Z. Bodie, B. Hammond, & O. S. Mitchell. Philadelphia, PA: Univ. of Pennsylvania Press: 175-197.

Chai, Jingjing, Wolfram Horneff, Raimond Maurer, & Olivia S. Mitchell. (2011). "Optimal Portfolio Choice over the Life Cycle with Flexible Work, Endogenous Retirement, and Lifetime Payouts." Review of Finance. 15(4): 875-907

Dus, Ivica, Raimond Maurer, & Olivia S. Mitchell, 2005."Betting on Death and Capital Markets in Retirement: A Shortfall Risk Analysis of Life Annuities versus Phased Withdrawal Plans." Financial Services Review. 14): 169-196.

Fong, Joelle, Olivia S. Mitchell, and Benedict Koh. "Longevity Risk and Annuities in Singapore." In Robert Clark and Olivia S. Mitchell, eds. Reorienting Retirement Risk Management. Oxford University Press: 156-178..

Horneff, Wolfram, Raimond Maurer, Olivia S. Mitchell, and Ivica Dus. 2007. "Following the Rules: Integrating Asset Allocation and Annuitization in Retirement Portfolios. Insurance: Mathematics and Economics. 42: 396-408.

Horneff, Wolfram J. Raimond H. Maurer, Olivia S. Mitchell, and Michael Z. Stamos. 2010. "Variable Payout Annuities and Dynamic Portfolio Choice in Retirement." Journal of Pension Economics and Finance. 9, April: 163-183.

Horneff, Wolfram, Raimond Maurer, Olivia S. Mitchell, and Michael Stamos. 2009. "Asset Allocation and Location over the Life Cycle with Survival-Contingent Payouts."Journal of Banking and Finance. (33) 9 September: 1688-1699.

Lusardi, Annamaria, Olivia S. Mitchell, and Vilsa Curto. 2010. "Financial Literacy among the Young: Evidence and Implications for Consumer Policy." Journal of Consumer Affairs. (44, 2): 358-380.

Maurer, Raimond, Olivia S. Mitchell, and Ralph Rogalla. 2009. "Managing Contribution and Capital Market Risk in a Funded Public Defined Benefit Plan: Impact of CVaR Cost Constraints." Insurance: Mathematics & Economics. (45): 25-34. .

Mitchell, Olivia S. and Annamaria Lusardi, eds. Financial Literacy: Implications for Retirement Security and the Financial Marketplace. Oxford University Press. 2011.

Mitchell Olivia S. and Kent Smetters, eds. 2003. The Pension Challenge: Risk Transfers and Retirement Income Security. Pension Research Council. Oxford, UK: Oxford University Press.

Mitchell, Olivia S., James Moore, & John Phillips. 2000."Explaining Retirement Saving Shortfalls". In Forecasting Retirement Needs and Retirement Wealth, eds. O.S. Mitchell, B. Hammond, & A. Rappaport. Philadelphia, PA: Univ. of Pennsylvania Press: 139-166.

Mitchell, Olivia S., James Poterba, Mark Warshawsky, & Jeffrey Brown. 1999. "New Evidence on the Money's Worth of Individual Annuities". American Economic Review. December: 1299-1318.

Mitchell, Olivia S. & James Moore. 1998. "Can Americans Afford to Retire? New Evidence on Retirement Saving Adequacy". Journal of Risk and Insurance, 65 (3) December: 371-400.