
Using Defaults to Enhance Adoption of Lifetime Income in Defined Contribution Plans

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ABSTRACT

Most 401(k) participants accumulate wealth for retirement in qualified default investment alternatives (QDIAs) such as target date funds that are designed to provide a life cycle appropriate mix of stocks and bonds for accumulation. Shifting a portion of savings to an annuity would allow retirees to spend more each year by delegating longevity risk to an insurer. The 2019 SECURE Act increases protections to plan sponsors who incorporate annuities into a QDIA, but adoption has been surprisingly slow resulting in low rates of lifetime income protection among employees. We review barriers to adoption with the defined contribution (DC) system including liquidity requirements, product design, and the need for active election of an annuity. We suggest three solutions to reduce these barriers. Defaults that include an annuity option are currently designed to require an active choice to receive lifetime income at retirement by participants. Evidence from other countries and participant surveys suggest that a high percentage would select some allocation to an annuity. Second, product innovation that allows participants access to liquidity with an automatic lifetime income benefit may be easier to implement than full annuitization. Care should be taken to design a product that is unlikely to be misused by less knowledgeable participants. Third, a regulatory entity that oversees commutation among insurers offering annuities within DC plans can reduce risks related to liquidity and the transfer of income liabilities to lower-rated insurance companies.

Keywords: Retirement, Defined contribution, Annuities, Defaults, QDIA, Lifetime income

I. Introduction

Holding assets within an income annuity allows a risk-averse retiree to spend more each year by transferring longevity risk to an institution. There is a consensus among economists that allocating a greater portion of assets to annuities could improve a retiree's lifestyle (Mitchell et al., 1999; Davidoff, Brown, & Diamond, 2005), and the failure to annuitize retirement savings is a puzzle likely driven by behavioral factors such as the tendency to frame retirement assets as wealth rather than income (Brown et al., 2008).

While 26% of workers invested in default life cycle funds such as target date funds in 2007, more than two out of every three plan participants (68%) invest in a target date fund today (ICI, 2024). Target date fund participants

tend to be less financially sophisticated (Goda et al., 2020), and are less likely to make investment changes than participants who manage their own investments (Liu, Finke, & Blanchett, 2024). Since default participants tend to accept the investment design selected by their employer, default investments could be an important pathway to improving retiree welfare among workers who would otherwise fail to annuitize.

Most participants are not able to annuitize their retirement savings within an employer-sponsored defined contribution (DC) plan. Only 11% of 401(k) plans offer an annuity on their plan menu either as an elective or default (DOL, 2019). The lack of annuity options reflects the evolution of the defined contribution policy in

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the United States. Safe harbor provisions that protect plan sponsors who select investment defaults that follow a life-cycle accumulation design have led to a highly concentrated marketplace of target date funds that offer a blend of stocks and bonds by low-cost providers (GAO, 2024).

Lower costs and more appropriate asset allocation of defaults led to a substantial improvement in investment performance outcomes among default participants compared to low-risk defaults that existed prior to the Pension Protect Act (PPA) of 2006. However, the same litigation pressures that reduced investment costs also increased reticence to incorporate products such as annuities that were perceived by plan sponsors and their consultants as a risk.

Despite an attempt to provide safe-harbor provisions for plan sponsors who offer annuities to participants in the 2019 Secure Act, few companies have added annuities to plans as a default and the largest target date fund companies have not added annuities to default investments (Mattlin, 2024), though this is changing (Blackrock, 2024). Plan consultants attribute the lack of adoption to the difficulty in evaluating the suitability of available options and the complexity of addressing liquidity and portability of annuity offerings.

We provide an overview of the current state of 401(k) regulation related to default investments. We then discuss the current state of products that include annuities available in the 401(k) marketplace, and trends and constraints that affect product innovation. In particular, we focus on the differences between the two means by which annuities can generate lifetime income. To overcome perceived adoption barriers by plan sponsors, we suggest a potential policy framework and an example of a government-sponsored solution directed at increasing the adoption of lifetime income at retirement.

II. Background

The Department of Labor established a list of Qualified Default Investment Alternatives

(QDIAs) within the PPA of 2006. Research published just prior to the PPA noted the tendency for most participants to simply remain in the default investment and suggested automatically enrolling workers in an investment default appropriate for a participant's life cycle stage (Iwry, Orszag, & Gale, 2005). Prior to establishing life-cycle funds as a protected default investment, many participants simply remained in low-risk cash equivalent default funds. Automatic enrollment into QDIAs that provided a more appropriate mix of stocks and bonds was seen as a simple way to improve investment outcomes for average participants.

The life-cycle investing design established through QDIA legislation is based on economic theory introduced in Bodie, Merton, & Samuelson (1992) that incorporates a worker's expected future earning, or human capital, as a component of their investment portfolio allocation. A decreasing equity allocation glidepath balances holistic allocation given the bond-like variability of human capital as an asset. The QDIA design specified in the PPA does not, however, take into account how assets in the default investment should be optimally turned into income. This emphasis on improving the efficiency of accumulation reflects how the defined contribution system has evolved over time.

The 401(k) was originally designed to provide a tax-sheltered deferred compensation saving vehicle for executives, and eventually replaced traditional defined benefit plans as the primary source of retirement wealth for American workers (Morissey, 2019). Investments are selected by plan sponsors primarily for the purpose of accumulation and, traditionally, most employers did not want workers to keep their money in the employer plan after retirement. This preference for moving employees out of an employer plan at retirement is shifting, largely out of a desire to reap cost efficiencies from scale, so sponsors are now looking for features to entice workers to keep assets within the plan after retirement.

The most important investment selected by a plan sponsor is the QDIA because so many employees remain in the default. 68% of workers

saving in 401(k) plans invest in QDIAs such as target date funds (ICI, 2024). Target date funds provide a professionally managed portfolio that has substantially improved retirement security for workers who would otherwise have invested in a low-risk default.

Employer-sponsored retirement savings plans that offer guaranteed income in the form of an annuity have existed since the creation of the 403(b) plan in 1954 (Nuveen, 2023). Offered through tax-exempt organizations, 403(b) plans have offered employees the equivalent of private pensions that can be retained when the employee moves from one organization to another.

Low availability of lifetime income products in DC plans can be attributed to either insufficient demand among participants and/or supply factors such as the added complexity of implementation and perceived liability risk under existing Employee Retirement Income Security Act (ERISA) regulations. There is little evidence the workers don't want to annuitize DC savings. A survey of plan participants indicates that more than 2/3 prefer some blend of investments and lifetime income to fund spending in retirement (Finke & Fichtner, 2022).

DC defaults do not force workers to select an investment. Instead, defaults place an employee in a recommended investment and allow the employee to opt out. The irrevocable nature of true income annuities increases the appeal of defaults that nudge participants toward an endorsement while requiring a deliberate (active) choice (Thaler & Sunstein, 2009). This is particularly true when employees lack the financial knowledge to feel comfortable making a choice and view the default choice as an endorsement (Beshears et al, 2009). Among 12 retirement income literacy topic areas, respondents scored lowest on knowledge of annuities (American College, 2024). Simply asking employees to make an active choice at retirement about whether to annuitize a specified portion of savings could have a significant impact on annuity adoption.

For example, employees required to make an active choice about saving for retirement (rather than independently opting in by informing their

benefits office), increased plan participation from 41 percent to 69 percent (Carroll, 2009). More than half of retirees in Sweden who were defaulted into lifetime income annuities remained in that option instead of electing a single non-life payment (Hagen, Hallberg, & Lindquist, 2018), and more than two-thirds of retirees in Switzerland chose a lifetime income annuity over a lump sum when required to make an active choice (Bütler & Teppa, 2007).

All existing default designs that incorporate a lifetime income option require that participants choose to receive lifetime income at retirement rather than simply defaulting employees into an irrevocable annuity contract. Given the evidence that employees both want to create lifetime income with at least a portion of their retirement savings, and that most workers in countries that require an active choice select a lifetime income annuity, there is an opportunity to significantly increase the percentage of workers who have lifetime income through a plan design that provides the opportunity to say yes or no to partial annuitization. Active election of income guarantees by participants can be incorporated into target date defaults to leverage the power of endorsement among workers who are likely to be the least knowledgeable about annuities investments.

The encouragement of the inclusion of annuities inside employer-sponsored plans has received bipartisan support, yet industry experts note that significant challenges remain for adoption of in-plan annuities by plan sponsors.

Today, the Department of Labor allows annuities to be inside of QDIAs as long as the annuities have the same liquidity and access properties required of other investments. We examine the key structural factors around plan defaults and barriers to implementation, including the investment requirements associated with any QDIA within an ERISA plan. We also address innovative approaches that combine participant flexibility and default to overcome behavioral objections and inertia and discuss possible policy solutions.

Implementation of defaults that incorporate annuitization at retirement would likely result in

a significant increase in the percentage of employees who benefit from lifetime income protection. In addition to the expected welfare benefits from annuitization, a partial annuitization default can reduce both the distribution costs of insurance and the costs associated with adverse selection.

III. State of the Market

There are substantial differences in design between institutional and retail annuities, largely because the initial client within a retirement plan is the employer rather than the participant. A major challenge to adopting annuities in employer-sponsored retirement plans is participant election in an ecosystem where they are not defaulted into an annuity, are not required to make an active choice, and receive little or no guidance from an advisor.

In the absence of a default, few retirees purchase individual income annuities from retirement savings. Retail single premium immediate annuity sales were only \$13 billion in 2023, or 0.01% of all individual retirement account (IRA) assets (LIMRA, 2024). Even when the participant holds a deferred annuity at retirement that offers the option of a guaranteed lifetime income within a DC plan, fewer than one in five participants elected to receive a lifetime income payment in 2017 (Brown, Poterba, & Richardson, 2023).

Current in-plan product designs that incorporate lifetime income tend to either include an annuity within a default during accumulation or provide income annuity access at retirement.

In this section we provide an overview of major constraints to product development today within and outside of QDIAs, trends in lifetime income, and characteristics of products that use different means of creating income.

A. QDIA (Default)

The Pension Protection Act of 2006 sought to improve retirement security by increasing retirement plan participation by workers, as only one-third of workers contributed to their plans

(DOL, 2006). To remove impediments to employer adoption of auto-enrollment, the Pension Protection Act incorporated measures that included a safe harbor for default investments. Employers had previously hesitated out of fear that they would be liable for losses.

In 2007, the U.S. Department of Labor finalized the safe harbor rule for default investments in retirement plans with participant-directed accounts or QDIAs. Under the safe harbor, an annuity may be incorporated into a default investment as long as it meets the liquidity requirements of the rest of the investment. Eligible investments include target date or lifecycle funds, balanced funds, and managed accounts. The participant must be able to opt out of the default investment with no penalty (DOL, 2008). Therefore, the participant has full control over the initiation of lifetime income and whether they prefer to take a lump sum or simply hold the guarantee to elect at a later date.

A default design can incorporate an illiquid annuity like a qualifying longevity annuity contract (QLAC), but the annuity must be outside the default investment itself. Importantly, there is no default design that also defaults to the irrevocable use of the annuity. While it is theoretically possible to create such an investment, it would fall outside the safe harbor and require that the plan sponsor assume greater fiduciary risk.

B. Collective Investment Trust Facilitates Default Lifetime Income

A mutual fund may not hold an annuity, but a collective investment trust (CIT) can. CITs are unitized investment vehicles available only within employer-sponsored plans and are increasing in popularity because of their flexibility and because the regulatory requirements for them are less onerous than they are for registered '40 Act funds. Though retirement plan CIT assets still lag mutual fund assets, CITs have grown faster than mutual funds every year since 2018 (Godbout, 2023).

The CIT can hold an annuity, or an insurer can wrap any fund (mutual fund or CIT) with a

lifetime income guarantee. Both structures using CITs appear in the commercial marketplace. Since CIT managers are considered discretionary investment managers with oversight over investment and annuity assets subject to ERISA, plan sponsors may view a reduced risk of delegating annuity selection to the CIT since the manager is considered to have fiduciary responsibility (Gorman, 2024).

If the CIT holds the annuity, it is an investment asset that neither the plan sponsor nor participant individually owns. Therefore, there must be a mechanism to convert the unitized value of lifetime income or potential lifetime income into a benefit for the participant. This can take place within the plan or through a rollover to an individual IRA. The specifics of the mechanism for these transactions differs significantly by design and is a novel component of fiduciary evaluation that may be unfamiliar to many plan sponsors.

The Government Accountability Office recently recommended updated guidance to plan sponsors and consumers on target date funds to reflect the specific risks related to CITs and could do the same for lifetime income (GAO, 2024).

C. GLWB or Annuitization

Much research on annuities focuses on the benefit of an income annuity (life annuitization). In practice, traditional income annuities represent a small portion of the retail annuity marketplace (3-6%) and only 11% of single premium immediate annuity (SPIA) quotes in 2021 were life only (did not include a death benefit such as a cash refund) (Blanchett, 2023). Though the death benefit does equate to slightly smaller payments, it helps overcome loss aversion from buyers who fear the consequences of an early death and the annuity income still effectively provides the benefit of lifetime income.

The guaranteed lifetime withdrawal benefit (GLWB) is an industry innovation originating in the retail annuity market that encourages people to purchase insurance for lifetime income while retaining both optionality and liquidity. Investment assets are wrapped within an annuity

that provides an option to withdraw a minimum amount of income from the investment (cash) value for a lifetime even after the investments within the annuity are depleted. The annuity owner retains a cash balance within the annuity that declines as income payments and GLWB insurance premiums (if there are any) are withdrawn. The remaining cash value can also provide a death benefit. Thus, a key difference between annuitization and the GLWB is access to the cash balance.

GLWBs offer important implementation benefits. The cash value within the policy is liquid unlike traditional deferred annuitization. The value of the annuity is more easily incorporated into a portfolio as a bond allocation, while traditional annuitization represents a shadow bond asset that should optimally increase the equity allocation of the remaining investment portfolio (Blanchett & Finke, 2018). Plan sponsors may be reticent to raise non-annuitized portfolio risk in a QDIA when a participant elects to partially annuitize, while the GLWB cash value can appear within the QDIA allocation as a bond asset.

GLWBs may also offer a cross-subsidy from those who do not initiate the lifetime income benefit to those who withdraw minimum income payments that allows insurers to offer lifetime income payout rates comparable to SPIAs within a liquid annuity product. The cost of lifetime income guarantees currently offered in the marketplace is below the expected cost to an insurer if everyone who owned a product withdrew the GLWB amount until death (Piscopo, 2009). Among GLWB providers, most require that the annuity owner contact the insurer to initiate lifetime income payments. This may disadvantage less sophisticated retirees who are more prone to inertia and less likely to recognize the benefit of taking the appropriate income amount.

Institutional products offer both types of lifetime income. Some hold the view that the GLWB is more palatable because of the flexibility, though fees are more explicit (and appear high compared to fees on investment assets) and the lifetime income protection may not be exercised by all participants. Others hold

the view that annuitization is more straightforward and provides more efficient provision of lifetime income for participants by providing an automatic lifetime income benefit similar to a traditional pension.¹

The GLWB is attractive because it offers the participant ongoing liquidity after income begins, allaying plan sponsor concerns about loss of access to savings. However, it is important to note that the value of the income guarantee and the contract value are calculated separately and that insured withdrawals reduce the contract value. The guarantee uses an income guarantee base value that, when multiplied by the guaranteed withdrawal percentage (for example, 5% per year), is the maximum allowed withdrawal to maintain insurance coverage at that level.

When the individual remains within that contractual limit, the income guarantee base remains intact and the contract will continue lifetime payments even after withdrawals deplete the cash value of the contract. However, if withdrawals exceed that amount, then these excess withdrawals reduce both the contract value and the income guarantee base.

Therefore, participants who take advantage of the ability to access cash value run the risk of eliminating the lifetime income stream. While the liquidity of these guarantees is a valuable feature, there is a risk that less sophisticated retirees may unwittingly destroy the income stream by withdrawing an amount greater than the GLWB. The option to take cash also constitutes a greater risk of predatory behavior harming elderly participants compared to life annuitization. In practice, the value of the death benefit of life annuitization is similar to the death benefit of the remaining cash balance associated with a GLWB.

The DC marketplace offers annuities with both types of lifetime income. It is valuable to have choice within the marketplace and to ensure that the market does not deemphasize annuitization for lifetime income. As a policy

matter, there is good reason to identify new ways to encourage life annuitization and not rely entirely on benefits that are confusing and expose retirees to risk.

IV. Policy Measure to Increase Adoption of Life Annuities

Safe harbors for the QDIA and the selection of annuities have increased interest in default solutions that incorporate annuities, but plan sponsors and other plan fiduciaries remain concerned about issues of insurer financial stability and product features. Just as ERISA created the Pension Benefit Guarantee Corporation (PBGC) to improve the security of guaranteed income from pensions, a new measure could create an institution to do the same with guaranteed income from commercial insurers.

One focus of such an entity could be protection in the event of significant changes at issuers, such as a change in ownership, reinsurance, or insolvency. For example, a plan sponsor may select a highly rated insurer to provide a default annuity, but the insurer itself, or the block of annuity liabilities held by the original insurer, could be subsequently acquired by a lower-rated insurer. Another focus of this entity could be to facilitate the increase of annuity adoption through programs that target specific product design challenges or structural obstacles. In particular, the emphasis on the use of defaults creates concerns around participants' ultimate conversion of the potential for lifetime income to actual lifetime income.

More widespread implementation of default investments that incorporate annuities will increase the number of plan participants with easy access to annuity income at retirement. However, there is no default to receive lifetime income at retirement, so participants still must actively elect income. The default acquisition of lifetime income-generating investments may encourage the use of these solutions, especially

¹ Actuarially fair fees on a GLWB that is fully utilized by a retiree may be in the range of 1% to 1.5% to compensate the insurer for expected claims from those who survive beyond the depletion of

their annuity cash value. In this sense, the fee is more accurately characterized as an insurance premium.

in the presence of other nudges. However, the industry is still experimenting with educational and other methods to increase participant conversion of income potential to actual income.

An explicit default for lifetime income is a thorny question, so other policy measures that aim to increase voluntary utilization of annuities are more practically and politically palatable. An example of a situation where mandated annuitization became politically untenable is the United Kingdom, which did away with the requirement to annuitize pension pots in 2015.

The irrevocability of the decision to annuitize is often presented as a major barrier to consumer election of life annuities. In reality, most consumers appear willing to trade wealth for a lifetime income guarantee. It is more likely that the primary impediment is that nobody is presenting consumers with a simple choice to buy an income annuity from savings (Arapakis & Wettstein, 2023). Nevertheless, one means to reduce plan sponsor concerns about offering life annuities is to provide commutation, which is access to post-issue liquidity.

Commutation allows an annuity buyer to exchange continued life payments for a lump sum. Though commutation is available as a benefit with some retail annuities, insurers are cautious in promoting them because of the moral hazard risk that individuals with a sudden change in health status could take advantage of liquidity. The present value of future payments for a typical annuitant could greatly exceed the expected payments should the same person abruptly receive a dire health diagnosis, creating the opportunity for arbitrage and mispricing of the commuted value.

Furthermore, insurers are cautious about representations that would lead a consumer to believe that a commutation benefit represents unfettered access to the present value of future income payments. Instead, when available, they promote it as emergency access to funds at a discount to the present value. Commercially, insurers do not view commutation as an important factor in marketing income annuities, which represent only a small fraction of retail sales.

However, because commutation may alleviate fiduciary concerns about providing irrevocable products to plan participants, it could serve as an alternative means of providing liquidity in tandem with the benefits of life annuitization. In addition, the moral hazard costs of commutation are likely significantly lower among participants who remain in the investment default because they tend to be less financially sophisticated and less likely to make changes to their investments over time. The proposed PBGC analog could sponsor a program to offer commutation to any participant receiving income from a group annuity contract issued by a commercial insurer. Such a program could offer a lump sum payment that represents a discounted present value payment during a limited window after retirement, such as five to 10 years. To reduce the risk of moral hazard, it is possible to leverage modern information technology like prescription databases that then can predict the health status of an individual. This kind of technology is already at play for underwritten or so-called “impaired” annuities, which offer a higher payment to those with medical conditions that greatly increase mortality risk.

A government program is necessary to properly address fiduciary concerns about this feature and offer a consistent benefit regardless of the issuing insurer. The cost could be relatively low because the program would receive ongoing payments in exchange for the lump sum released to the participant.

Commutation is typically an underused benefit among retail annuities, so this approach also consolidates the pricing and administration more efficiently than would be the case among individual insurers. TIAA conducted an experiment along similar lines with its “Income Test Drive” project that allows participants to initiate income payments from CREF without a full commitment to annuitize (Richardson, 2024), instead shifting automatically to true annuitization at the end of two years. Half of participants annuitized at the end of the trial and only one-quarter voluntarily terminated the program, while the rest failed to annuitize due to technical issues. Among those who annuitized, more than three-quarters annuitized other assets,

primarily fixed annuities. This suggests an alternative for commutation that is also worth exploring in the commercial setting to encourage the use of life annuitization.

Commutation can also be used to reduce plan fiduciary concerns about changes in the credit risk of ongoing lifetime income obligations. Historically, credit ratings of insurance companies have been a good predictor of subsequent liquidation, and cumulative 10-year liquidation rates are below 2% for A-rated insurers (Finke & Blanchett, 2023). Even when an insurer is liquidated, this may or may not impact the regular income received by annuity owners if liabilities are absorbed by another insurer. Although historical failures have rarely impacted annuity owners, adding annuities to DC plans and in particular to defaults would substantially increase income liabilities within the industry and potentially stress state guarantee funds. Despite the growth of annuity sales in recent years, the percentage of annuities that provide lifetime income through annuitization or lifetime income guarantees remains a fraction of annuities in the marketplace.

Even when a plan sponsor or investment manager selects a highly rated insurer, they have little control over the risk of that liability once the annuity is purchased. A highly rated insurer can be acquired by a lower-rated company, the insurer may itself experience a credit downgrade, or the insurer may sell a block of annuity liabilities to a lower-rated insurer. The offloading of annuity liabilities to lower-rate insurers has occurred in pension risk transfers resulting in an implied wealth loss to workers.

It is sensible to anticipate misaligned incentives between annuity owners who value a stable lifetime income and insurers who owe loyalty to shareholders. A novel solution would be to immediately offer commutation to annuity owners when the annuity liability is sold to a lower-rated insurer, when the company's rating is downgraded by a specified amount, or when the company is acquired by a lower-rated insurer. Commutation should be large enough to represent the current fair market value of the annuity liability issued by a highly-rated insurer. Of course, annuity owners would need to be

notified of the change in income risk and be given a window of time to initiate the payment. Requirement of an active choice to reject commutation may be ideal since less sophisticated default participants would otherwise be less likely to recognize the value of and ultimately exercise the option of commutation. This would reduce the benefits of risk arbitrage and create a healthier market for liability transfers.

V. Conclusions

Although recent legislation provides greater protections to employers who add annuities to investment defaults, the rate of adoption has been slow resulting in low rates of lifetime income protection among participants. It is possible to reduce barriers to adoption by both plan sponsors and participants by leveraging the power of active choice and endorsement, offering creative lifetime income products, and creating a mechanism to provide liquidity after annuitization through commutation.

Defaults offer the greatest potential for improving retiree welfare by increasing the percentage of retirees who hold annuitized wealth. According to multiple studies of participants, most prefer a partial allocation to lifetime income over an investment-only allocation that exists among nearly all QDIAs that exist today. The most practical solution to increasing the percentage of retirees receiving a guaranteed income is to require that participants actively choose whether or not to allocate a specified percentage of their savings to an annuity at retirement. Requiring an active choice will likely significantly increase the percentage of retirees who select guaranteed income, and combining this selection with clear information about that tradeoff between wealth and income can give less knowledgeable consumers the ability to choose an income amount that reflects their lifestyle preferences.

Products that provide full annuitization in which workers give up liquidity in order to receive a lifetime income guarantee offer both potential benefits and costs compared to products that provide a lifetime income

withdrawal benefit (GLWB) from assets within an annuity wrapper. The primary disadvantage of a GLWB is the potential welfare loss from the inefficient use of the income guarantee by either withdrawing too much or too little from the product. Default GLWBs are even more likely to be misused because default participants tend to be less financially sophisticated. An ideal default GLWB will automatically provide the participant with the guaranteed lifetime income payment without requiring an active election to initiate income. The annuity cash value remains accessible, but most default investors likely won't make an active decision to make a withdrawal above the GLWB unless emergency funds are needed.

Access to annuitized wealth through commutation can be an attractive option to reduce liquidity-related barriers to in-plan annuity. Giving participants notice of the ability to elect commutation of annuities transferred to a lower-rated insurance companies creates a disincentive to transfer DC liabilities to lower-rate insurance companies. The creation of a government entity responsible for managing a fair commutation scheme among insurance companies providing in-plan annuities would increase the efficiency of offering retirees the ability to access annuitized wealth.

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<i>Received/</i>	<i>2024.07.05</i>
<i>Revised/</i>	<i>2024.12.01</i>
<i>Accepted/</i>	<i>2024.12.05</i>