

The future of defined contribution

Spring 2026

next



A new blueprint
for the future
of retirement

nuveen

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A principled approach to TDFs with guaranteed lifetime income

It could be said that the defined contribution industry is fluent in target-date funds but speaks annuities as a second language. Across the industry there are various mechanisms that target-date fund (TDF) managers can utilize to incorporate, and deliver, a guaranteed lifetime income benefit. Our conviction is that these solutions, when thoughtfully designed, can offer meaningful outcomes for a broad spectrum of plan participants. Establishing the framework of exactly how to incorporate lifetime income into a TDF is complex, however, but we have attempted to create a simplified and principles-based framework for better understanding these solutions. While it is important to understand the various guaranteed income benefits being offered, we must not forget that these are primarily target-date funds.*

Key takeaways

Target-date fund management should be principled, with a focus on remembering what a target date is for and who it serves.

There are different mechanisms by which a target-date fund can implement lifetime income and each offers benefits and drawbacks.

We believe that a target-date fund should not sacrifice its primary goals just for lifetime income.

Three guiding principles for developing TDFs with guaranteed lifetime income

We believe that good product development begins with having proper first principles. At Nuveen, as we designed our income solution, we focused our efforts on upholding the following three principles, to plant our development efforts firmly in the underlying benefits and familiarity of target-date funds.

1. TDFs, as they are currently constructed, work really well; therefore, change as little as possible.

Our clients do not want us to develop solutions that are dramatically different from the target-date funds that they currently have. Ideally, a target-date fund with guaranteed lifetime income will look, act and feel just like a target-date fund without it. Deviations from this current state — such as higher net expense ratios, as well as investment, contribution and income-election restrictions — should be thoroughly examined, documented and understood.

It is also the case that participants understand target-date funds, and in wishing to keep retirement plan products as familiar and simple as possible, it is worth trying to see what can be done within the TDF framework.

2. As a QDIA, the TDF should be designed for the broadest population of participants, including those who do not want to exercise a guaranteed income benefit.

During the product development process, it is easy to become hyper-focused on the income delivery mechanism. This often leads to solutions that are primarily designed for the subset of participants who will take up the income benefit, without due regard for those participants who will not.

We applaud the objective of delivering guaranteed lifetime income, but we also believe that it needs to be properly subordinate to the broader target-date fund objective of delivering improved accumulation outcomes. In our view, the best way to develop a TDF is to design a solution that aims to deliver larger and/or more risk-controlled nest-eggs for as many participants as possible.

Critically, these solutions ought to hold their own as target-date funds even if no one ever exercised the guaranteed lifetime income benefit.

3. The guaranteed income benefit should be made available to every participant irrespective of the participant's age and/or contribution history.

We encourage our clients to document and understand any income benefit eligibility criteria. For example, some solutions might require that contributions be initiated by a certain age, while others impose income election windows which cut off access to an unexercised income benefit by a specified age.

We believe that every participant deserves access to the guaranteed lifetime income benefit, especially the eldest — who are often in most urgent need of this benefit. When considering the below approaches, it could be productive to meditate on the following question: “If no one ever exercised the TDF’s embedded guaranteed lifetime income benefit, is it still a good TDF?”



Three primary mechanisms for delivering the lifetime income benefit



1. Target date allocates to a lifetime income instrument

With this mechanism, the manager introduces an allocation to a lifetime income instrument, alongside the TDF's stock and bond allocations. That is, the TDF is simply adding a net new asset to its strategic asset allocation. Importantly, this will ultimately give participants the option, but not the obligation, to convert some portion of their TDF balance into guaranteed lifetime income during retirement.

While the lifetime income instrument can offer powerful decumulation benefits, we first need to understand how its inclusion within the TDF impacts the risk/return profile of the TDF and, thus, the expected accumulation for participants. Here, it is important to note that not all lifetime income instruments are created equally with respect to their investment characteristics. If the primary goal of the TDF is improved accumulation outcomes, then the investment characteristics of the lifetime income instrument are critically important.

For TDFs that allocate to a lifetime income instrument, the decumulation benefit will be optional. That is, those participants who do not want guaranteed lifetime income need not exercise the benefit. They can

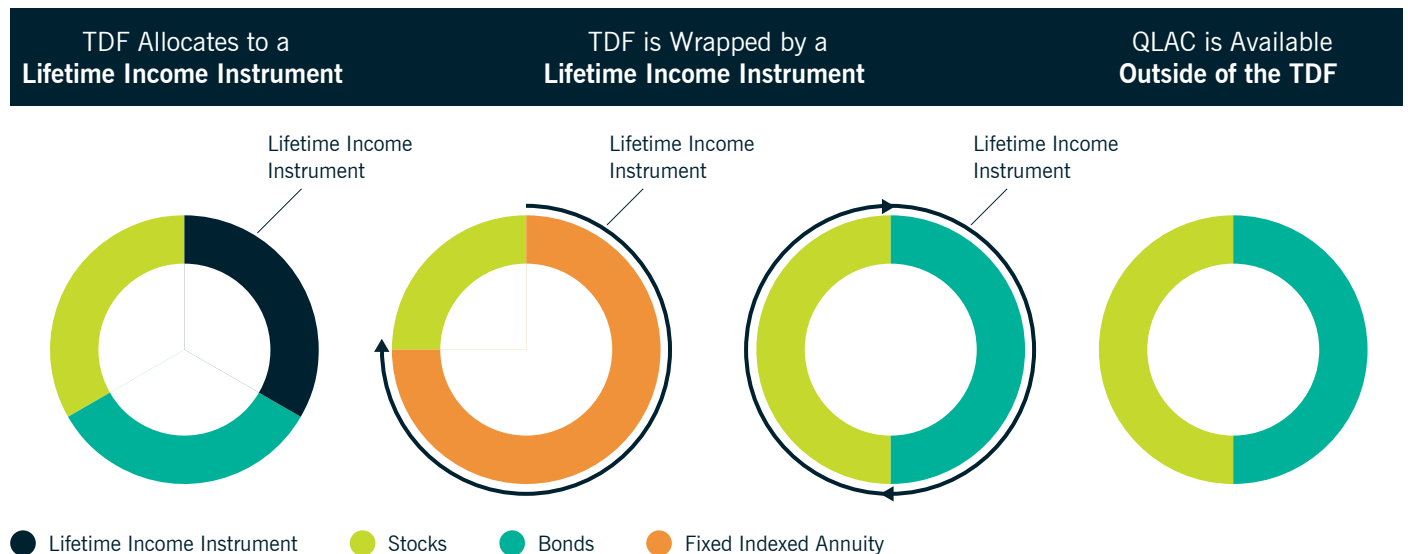
simply stay invested in the TDF, process symmetric withdrawals and/or roll into an IRA and work with a financial advisor. However, if a participant does want to exercise the benefit, each TDF will offer varying levels of flexibility with respect to the income election decision.

At Nuveen, we recognize that each participant will have a unique retirement journey, and we built Nuveen Lifecycle Income to accommodate and deliver as much optionality as we felt possible, aiming to meet the diverse needs of each participant. For example, while Nuveen Lifecycle Income maintains a ~40% maximum strategic allocation to the TIAA Secure Income Account, a participant has the flexibility to annuitize** between 0% and 100% of their TDF balance. Participants also have the flexibility to annuitize multiple times, and they are not subject to any strict income election windows.

Other TDFs will have different glidepaths that allocate to the annuity instrument at different stages of the TDF cycle, and to different total percentages. Some may impose income election windows or restrictive age gates, and make it difficult for the participant to annuitize more/less than the strategic allocation to the lifetime income instrument. Such solutions take a more rigid approach.

Lastly, it is important to understand who is providing the lifetime income benefit and the various features offered during decumulation. While we won't cover this in detail here, we believe it is important to work with insurers who have vast experience delivering differentiated streams of guaranteed lifetime income to DC plan participants.

Three primary mechanisms for delivering the lifetime income benefit





2. Target date fund is wrapped by a lifetime income instrument

Rather than allocating to a lifetime income instrument, some TDFs wrap the portfolio with a lifetime income instrument, either around the entire portfolio, or around a meaningful majority of the portfolio. The type of lifetime income instrument utilized for this mechanism is referred to as a Guaranteed Lifetime Withdrawal Benefit or GLWB.

In general, these GLWB TDFs have two important concepts:

1. **Income Base**, which equates to the value upon which a GLWB makes the income payments, and it is generally a function of participant contributions and market activity. Often, the income base is calculated by applying a high-water mark to the participant's TDF balance. In most cases the Income Base will generally be equal to, or potentially greater than, the participants' TDF balance at the point of retirement.
2. **Income Benefit**, which is a percentage applied to the Income Base, to determine a participant's income payment. In most cases, the income benefit is around 5%.

For example, if a ~65-year-old participant has an income base of \$500k, and an income benefit of 5%, then the participant would receive an income payment of ~\$25k a year. The participant would access this income benefit via a two-phased process. During phase one, the participant is systematically withdrawing their own TDF assets, at a rate of ~\$25k a year. If the participant completely depletes their TDF balance, then phase two begins, and the insurer will initiate the guaranteed lifetime income payments.

Importantly, during phase one, participants maintain full liquid access to their TDF balances. However, any excess withdrawal may proportionally reduce the income base, and thus the dollar amount of their income benefit.

In general, these TDFs tend to deviate in feel from non-income TDFs. For example, some impose age gates, which require participants to be invested in their age appropriate TDF, while others charge net expense ratios that are meaningfully higher than the average TDF. In general, GLWB TDFs provide relatively less optionality with respect to the income election decision, and some even automatically initiate the income benefit when the Fund reaches a certain date, and/or when the participant reaches a specific age.

In general, these TDFs could work well for plan sponsors who are less concerned with optionality and more focused on maximizing the total number of participants who receive an income benefit.



3. Lifetime Income Instrument is Offered Outside of the TDF

Lastly, some TDFs take a third approach. These TDFs simply partner with an insurance provider to make a lifetime income benefit available outside of the TDF. Generally, these will make a Qualified Longevity Annuity Contract (QLAC) available to those participants who are interested in a guaranteed lifetime income benefit.

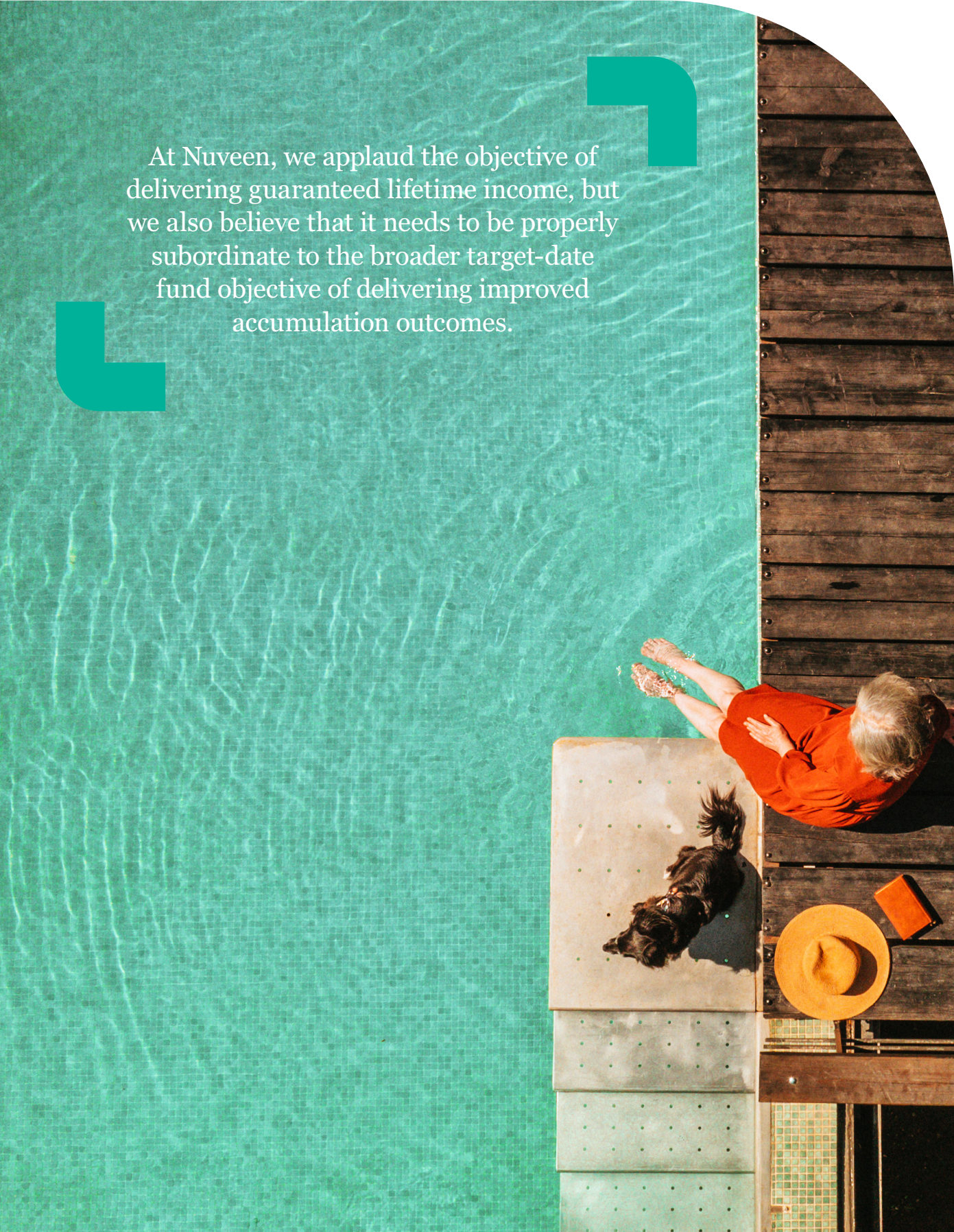
For example, a participant contributing to their TDF and realizing market gains reaches age 65, with \$500k in the TDF portfolio. Around this time, they have some period of time to determine whether to participate in the guaranteed lifetime income program.

If not, they can stay invested in the TDF, process symmetric withdrawals, and/or roll into an IRA and work with a financial advisor.

If they do want to participate, they would generally redeem some portion of the TDF, let's say ~20% or \$100k, and use this \$100k to purchase a QLAC from the insurance partner. The QLAC won't initiate payments until the participant grows closer to 80 years old.

The goal is to systematically withdraw the remaining TDF balance of \$400k, to get from ~65 to ~80 years old, at which point the QLAC kicks in. Importantly, because the QLAC doesn't pay income until the participant is ~80 years old, it generally has very attractive payout rates.

These TDFs, in general, do a fantastic job of addressing longevity risk specifically. However, some participants express discomfort with the idea of parting ways with a significant portion of their TDF balance at ~65 years old, while recognizing no benefit until they turn ~80.



At Nuveen, we applaud the objective of delivering guaranteed lifetime income, but we also believe that it needs to be properly subordinate to the broader target-date fund objective of delivering improved accumulation outcomes.

Benefits 2.0 survey: looking to the future so your participants can focus on the present



Key takeaways

Workers are increasingly concerned about rising costs of living and job security. They are taking steps to feel more secure, either by no longer looking for work or changing retirement contributions.

Our respondents are pushing out their planned retirement dates, some due to health care costs, others due to fears around Social Security

There is a place for AI in benefits planning, as workers show a relatively high level of trust for AI agents and would let them be more involved in the process

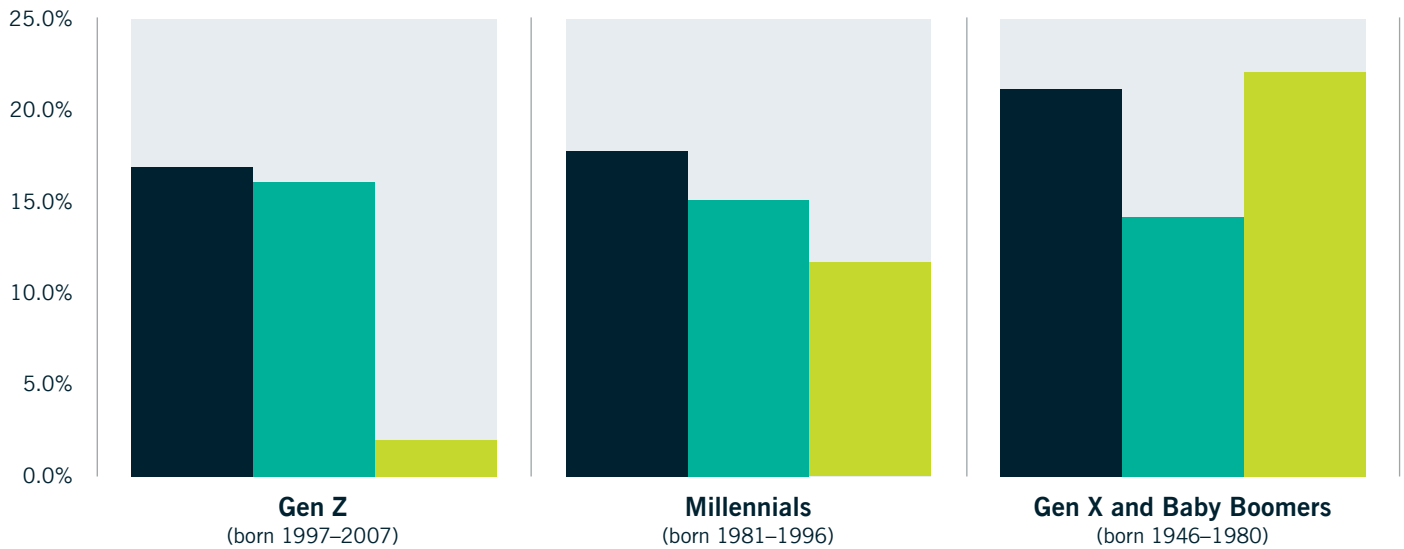
A new era of financial pressure

Workers today are facing a period of sustained financial uncertainty, in which rising living costs, market volatility and job security concerns are reshaping how they balance immediate needs with long-term financial goals. With this in mind, Nuveen commissioned Economist Impact to conduct the second Benefits 2.0 survey, building on its 2023 research.¹ The 2025 survey, with responses from more than 2,000 U.S. workers, examines how economic conditions are influencing career decisions, savings behavior and retirement expectations — and what these shifts mean for plan sponsors.

¹This survey was conducted by Economist Impact, supported by Nuveen, among 2,063 Americans with full-time employment between the ages of 18-62. Fieldwork was conducted between November and December 2025.

Thinking about your job priorities, which of the following has become most important to you compared with three years ago? (% ranked first)

● Affordable health insurance ● Predictable and stable income ● Good retirement benefits or pension plan



The findings point to a clear change in priorities. Younger and lower-income workers are increasingly willing to trade higher wages for greater stability and stronger benefits. At the same time, many employees are making short-term financial adjustments that will weaken their long-term retirement readiness. Together, these trends underscore the expanding role of employer-sponsored benefits in supporting workforce resilience. One indicative number was that 62% of U.S. workers say they would prefer long-term job security over higher pay or stronger benefits if those came with less security.

Workers are borrowing from their futures

Our survey also indicates that 51% of U.S. workers have taken or applied for a job with equal or lower pay in exchange for a more attractive benefits package throughout their careers, and 15% have done so in the past 12 months. This presents an opportunity for employers to use their overall benefits package to attract talent, while not necessarily having to offer significantly higher salaries at the same time.

Conversely, in the last 12 months, 30% of Gen Z report that they have stopped or delayed looking for a new job due to a fear of losing job security, compared to just

14% of all workers. Also reporting, 9.5% of millennials indicate lowering their retirement contributions in the last 12 months, again a sign of economic stress and uncertainty.

The pressure on those nearing retirement remains elevated across our results, with 7.5% of boomers Gen X workers saying that they have reduced their retirement contributions due to rising costs in the last year, while 6.6% have delayed retirement in the last 12 months.

The results of the survey also indicate that mid-career workers are most exposed, with around four in ten millennials (40%) and Gen X workers (39%) having accessed retirement savings early. This is troubling as early withdrawals from retirement savings can have a compounding effect for those with decades left in their careers. The survey also shows that more than one-third of millennials (37%) have reduced retirement contributions during their careers. These numbers lead us to recommend more educational resources be made available by employers to help show workers why they should try to keep retirement contributions stable through their highest earning years.

There is also a worrying statistic that could highlight a growing risk, with 8% of both higher and middle-income workers having reduced retirement contributions in the last 12 months alone. This could become a worrying trend if it sets in and those workers don't catch up with those contributions.

Retirement expectations pushed further out of reach

Retirement expectations have shifted as a result of ongoing cost of living increases, with respondents overall expecting to retire around four years later than they had originally planned. These expectations are shifted even more for lower-income workers (around six years) and workers with less than a college education (about five years).

21% of Millennials workers cite the potential for changes to Social Security as a reason why they might have to delay retirement. These shifting expectations for retirement offer an opportunity to plan sponsors to ensure that they have systems in place to build that confidence back up in their workers, whether through a lifetime income product or an alternative, to give participants increased confidence that when they do retire, they'll be able to maintain the same standard of living.

General understanding of retirement planning and options available is encouragingly high, with 72% of workers saying that they understand the retirement planning options available to them, but this number falls for certain demographics. Just 47% of Gen Z say that they understand their options, and only 52% of lower-income workers say the same. These demographics are the ones that would benefit from educational campaigns to boost their knowledge of available options. One number that could be cause for concern is the 70% of respondents who say that planning for retirement feels overly complicated or time-consuming.

It is also of note that nearly two-thirds of workers (63%) say that they made initial retirement choices but rarely review or change them. While this can be seen as a relatively positive point for a plan that is well-constructed, we would like to make sure that advice and engagement are available for participants as their expectations for retirement shift throughout their careers. The survey shows that disengagement in reviewing retirement plans is highest among millennials (69%), junior staff (77%) and low- to middle-income workers (71%).

To what extent do you agree or disagree with the following statements? Top two agree results

● Baby Boomers and Gen X (born 1946–1980) ● Millennials (born 1981–1996) ● Gen Z (born 1997–2007)



A surprising level of enthusiasm for AI in benefits

One rapidly growing area of retirement planning is the potential for AI advice and modeling. With these tools growing in sophistication all the time, they may be a way for plan sponsors to mitigate the expense of customized advisory services while still helping employees feel engaged.

The survey showed that overall, 70% of workers trust their employer to use AI to personalize benefits based on employee data. Specifically, 77% of millennials and 61% of Gen Z trust their employer to use AI in this way, and with these generations having the longest runway left before retirement this could be a way to change behaviors at a relatively early stage. Perhaps even more surprisingly, 66% trust employers to use AI to help decide which benefits to add or cut, showing a level of willingness to outsource difficult and complex decisions to AI models to relatively new technology.

However, there are some qualifiers to this trust. Four in ten (39%) cite data privacy as one of their three biggest concerns. Three in ten (30%) worry about biased or inaccurate AI recommendations and 26% fear AI could replace human support. But there was mitigation, with 48% saying that they are more likely to use AI tools if there are better data protections in place, and 40% say that they would be more confident using these tools with a human alongside the AI.¹

There are some other concerns from participants that would need to be resolved as well, with 26% of respondents citing limited knowledge of how to use AI tools effectively as one of their top worries, and 23% offering a perception that AI tools are too complicated to use properly.

¹Respondents could select up to three factors that would make them most likely to consider using AI to help manage their benefits.

Re-centering benefits in a volatile world

In summary, the 2025 Benefits 2.0 survey highlights a workforce under sustained financial pressure. In response, many workers are prioritizing stability, adjusting savings behavior and seeking long-term security at the expense of postponing retirement.

At the same time, engagement and knowledge gaps continue to limit workers' capacity to adapt effectively. These challenges elevate the role of employer-sponsored benefits as a critical source of stability, guidance and confidence.

By investing in thoughtful plan design, targeted education and technology-enabled support, sponsors can meaningfully help employees navigate uncertainty during these challenging times. For sponsors, delivering accessible, personalized and trustworthy retirement solutions will be central to improving outcomes for today's workforce.

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The next frontier for defined contribution: embedding private assets

Nuveen has long been a leader in the democratization of private market investments in defined contribution (DC) plans, and we believe private assets are now poised to play a more meaningful role. But, as the conversation about integrating private investments into DC plans continues to grow, the question remains: how does this discussion differ from previous debates about asset allocation within retirement plans or discussions surrounding broader portfolio construction themes?

To explore the answer, this article will focus on the accumulation phase of DC plans – the time participants are working and saving for retirement. This is when participants aim to grow their nest egg by balancing risk and return; seeking long-term asset growth while avoiding excessive risk that could leave them vulnerable to a sudden market downturn.

Key takeaways

Private markets can enhance outcomes for DC participants.

Private assets offer plan diversification, broaden the investable universe and can potentially enhance long-term risk adjusted returns.

We believe embedding private markets within target-date funds is the most effective and participant friendly approach.

TDFs help manage the implementation of private investments, but an effective approach requires thoughtful design and transparent communication.

Each private markets asset class offers unique advantages and challenges.

Private assets offer distinct benefits but also introduce illiquidity, complexity and increased risks.

Growing momentum behind private markets investments

The idea of adding private markets to DC plans is gaining traction. According to recent Nuveen EQuilibrium research, nearly half of institutional investors believe that DC participants can benefit from allocations to private credit and infrastructure in their plans. In addition, about 40% expect to increase their allocations to private assets within the next two years.

Momentum is building as investors and DC plan sponsors recognize that, by incorporating private markets into plans, they can give participants access to asset classes that were previously out of reach. The inclusion of real estate, private equity, private credit and real assets in portfolios broadens the investable universe and can provide meaningful diversification benefits.

Constructive implementation approaches may also strengthen the role of private markets in retirement planning. Plans are maintaining relatively small allocations to private assets to avoid overexposing participants, while professionally managed target-date funds and similar vehicles help preserve what they believe is an appropriate asset mix. This careful balance is already evident globally. For instance, one Australian superannuation fund reportedly allocates up to 40% to private investments, and some UK funds target 15%–25%, supported by longer investment horizons and the return potential of private assets. While these allocations are potentially too high for the needs of a target-date fund and its requirement for more immediate liquidity, they are indicative of interest from institutional allocators.

Although expanding access to private investments within DC plans can offer meaningful benefits, it also introduces risks and raises questions about which types of private assets are appropriate for both participants and plan sponsors. In addition, stronger participant education and clearer regulatory guidance remain essential. Even so, we believe that the advantages of adding private market exposure to defined contribution plans outweigh the potential drawbacks. With appropriate guardrails in place, these investments can help improve retirement outcomes.

The efficacy of embedding private assets in a target-date fund

Embedding private investments within target-date funds (TDFs) is, in our view, the most effective and likely the dominant path for integrating alternatives into DC plans. The TDF structure alleviates many of the challenges associated with offering private investments as standalone menu options.

Because the fund manager already oversees the fund’s asset mix, adding private market exposure expands the universe of return and diversification opportunities. Introducing private assets can provide exposure to less correlated assets, broaden the investable landscape and potentially offer risk mitigation benefits.

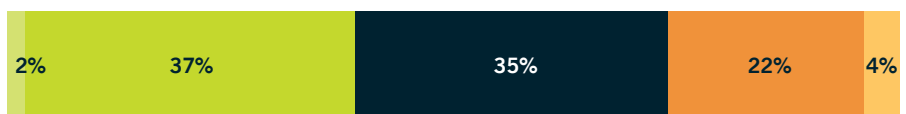
The example on the right, while for a more static 60/40 portfolio, highlights the change in characteristics that an allocation to private market assets may have. Within a target-date fund though allocations would change over time and would differ from this example according to the glidepath of the individual target-date vintage and portfolio manager decision making.

Positive sentiment among institutional investors¹

Individual investors, including those in defined contribution plans, would benefit from having access to private market investments.



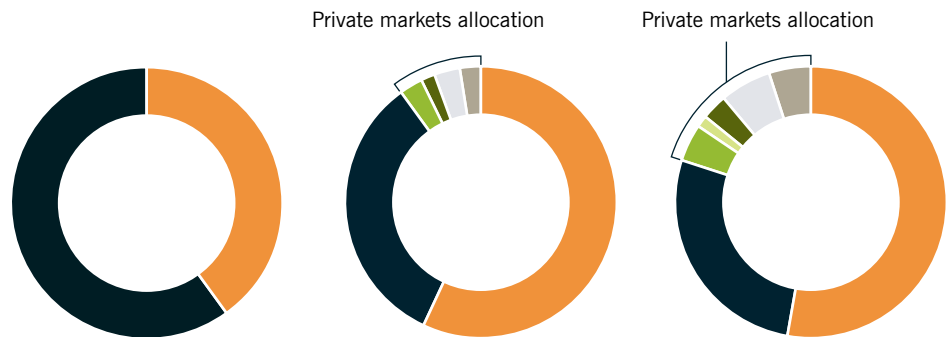
Based on recent legislative changes, it is likely that we will add or increase private investment offerings in our investment lineup or default investment in the next two years.*



● Strongly agree ● Agree ● Neutral ● Disagree ● Strongly disagree

Optimizing portfolios with private markets²

Enhancing portfolio diversification through various alternative allocations



	TRADITIONAL 60/40	+ 10% PRIVATE MARKETS	+ 20% PRIVATE MARKETS
● Equities	60%	57%	53%
● Fixed income	40%	33%	27%
Private markets	—	10%	20%
● CLOs	—	—	—
● Core real estate	—	3%	4.5%
● Farmland	—	—	1.5%
● Private infrastructure	—	1.5%	3%
● Private credit	—	3%	6%
● Private equity	—	2.5%	5%
Portfolio characteristics			
Historic volatility (15-year)	9.67%	9.37%	8.91%
Sharpe ratio (15-year)	0.69	0.78	0.84
Duration ² (years)	5.9	5.5	5.0

Nuveen Asset Allocation Models as of June 30, 2025, using quarterly return data. The allocations in the charts above reflect portfolio weights for equity, fixed income, private markets and cash asset classes across the spectrum of risk-based model portfolios. Allocations are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. Equity asset classes include, but are not limited to, domestic equity and international equity. Fixed income asset classes include, but are not limited to, investment grade bonds, high yield bonds, convertible bonds, emerging market debt, inflation-protected bonds and Treasuries. Private markets include, but are not limited to, private equity, private credit, private infrastructure, real estate, farmland and collateralized loan obligations (CLOs). **Representative indexes:** Equities: S&P 500 Index; Fixed income: Bloomberg U.S. Aggregate Bond Index; CLOs: Credit Suisse Leveraged Loan Index; Core real estate: NCREIF Fund Open End Diversified Core Fund Index; Farmland: NCREIF Farmland Index; Private Infrastructure: Bloomberg Private Real Assets Index; Private Credit: Bloomberg Private Credit Index; Private equity: Cambridge Associates LLC U.S. Private Equity Buyout Index. Hypothetical characteristics are shown for illustrative and informational/educational purposes only. Actual results may vary. It's not possible to invest in an index.

¹ Source 2026 Nuveen Equilibrium survey. Institutional investors when asked "To what extent do you agree or disagree with the following statements." (n = 186, *n = 165, UK and US only) data may not sum to 100% due to rounding

³ Corporate Advisor. December 2025.

Embedding alternatives within a TDF also centralizes the operational complexities such as investment/manager selection, due diligence, liquidity management, capital calls and distributions, valuations, reporting and portfolio rebalancing.

This is particularly beneficial for participants, as it removes the burden of assessing private investments on their own and simplifies their decision-making process. For example, growth-oriented private equity may suit younger participants, while more income-oriented real estate or infrastructure might become more appropriate later in the lifecycle.

Implementation considerations

One of the biggest challenges associated with adding private assets to DC plans is the potential mismatch between illiquidity and participant needs for cash flow when changing jobs, taking distributions or rebalancing. However, by embedding alternatives within a TDF, liquidity can be professionally managed at the fund level. This allows the portfolio to maintain sufficient liquid assets to meet predictable cash flow needs while maintaining longer term positions in less liquid investments.

While embedding alternatives in TDFs offers benefits over other methods, successful implementation requires careful attention to several key factors. First, target-date providers must have the expertise and infrastructure needed to manage private investments, and these capabilities can vary widely across managers. Some firms have decades of institutional experience in private markets, while others are only beginning to build out their capabilities.

Fee structures also require careful evaluation. Private assets typically carry higher fees than public market equivalents but embedding them within a TDF should allow participants to access institutional level pricing rather than retail fee structures. That said, plan sponsors must clearly understand the all-in costs, including both the TDF's management fee and the underlying fees of the private investments.

Participant communication also remains important when alternatives are embedded within a professionally managed fund. While individuals do not need to make allocation decisions themselves, plans that provide transparency about what the TDF holds can build trust. Clear, accessible explanations about why alternatives are included and how they fit into the broader portfolio can keep participants informed without overwhelming them.



Dispelling myths about private markets

Nearly a decade ago, Nuveen recognized that participants deserved access to a fuller spectrum of investment opportunities and was one of the first asset managers to integrate private real estate into our target-date funds. We remain committed to the pioneering approach of increasing access to private investments, as we believe they can help drive better retirement outcomes for participants.

With that in mind, we are proud to have partnered with Cerulli and DCALTA on research that examines opportunities and dispels myths associated with incorporating private market assets in defined contribution plans.

To read the research visit: [nuveen.com](https://www.nuveen.com)

Private markets asset classes: a closer look

Each private markets asset class brings its own benefits, challenges and risks for DC plan sponsors and participants. Below, we explore the suitability of real estate, private equity, private credit and real assets within DC plans.

Real estate

Real estate can provide distinct advantages for defined contribution plan participants, offering characteristics that complement traditional allocations. It can serve as an effective hedge against inflation because, when prices rise, property values and rental income typically increase as well, helping preserve purchasing power over time. Real estate investments also seek to generate steady income through rent payments, which can provide consistent cash flow, a feature that becomes especially valuable for participants approaching retirement.

Unlike stocks and bonds, real estate represents ownership of physical assets. This tangible nature can provide psychological comfort to some investors and reflects real economic activity through properties used for living, working and commerce.

Private equity

Private equity provides exposure to an asset class that has historically shown low correlation with public markets, offering diversification potential that can help smooth portfolio returns over time, particularly during periods of public market volatility.

Private equity also gives participants access to companies not available in public markets, creating opportunities that can be especially beneficial for younger participants with longer investment horizons.

While the illiquid nature of traditional private equity has long posed challenges for inclusion in DC plans, newer semi-liquid and evergreen fund structures are helping address these constraints and improve accessibility.

Private credit

Private credit has emerged as an increasingly relevant asset class for defined contribution plans. These borrowers typically can't access traditional lending from banks and the public markets due to their low ratings, so they typically offer higher yields than traditional fixed income investments to help compensate investors for the illiquidity, heightened credit risk and complexity of the asset class. In low-interest-rate environments or when traditional bond yields are compressed, private credit can provide a valuable source of income for participants.

Many private credit strategies focus on senior secured loans with floating interest rates, which can be particularly useful for managing interest rate risk within retirement portfolios. These loans also sit at the top of a company's capital structure, offering investors an added layer of protection.

As with private equity and real estate, incorporating private credit into DC plans requires thoughtful structuring to manage liquidity needs, given their typically illiquid nature. And while newer semi-liquid fund structures and interval funds have been developed to make private credit more accessible in DC environments, participants need clear education on how private credit differs from traditional bonds, including liquidity constraints, valuation practices and the drivers of the yield premium.

Real assets

Similar to real estate, farmland and similar real assets have historically shown a strong correlation with inflation. As the costs of food and commodities rise, farmland values and agricultural output prices typically increase as well, making farmland particularly effective at preserving purchasing power over long time horizons, which aligns with the objectives of retirement savers. Farmland's dual return streams, derived from both potential land appreciation and crop income, also provide natural inflation sensitivity.

Beyond farmland, real assets can include timberland, infrastructure, natural resources and commodities. While each category has distinct characteristics, they share the common features of tangible value and inflation-sensitive return profiles.

However, these investments are highly illiquid, and valuations can be complex and infrequent. Participant education is essential, as farmland and other real assets may be unfamiliar to many investors. Clear communication about their role, risk characteristics, liquidity constraints and appropriate time horizons is critical for effective implementation.

Addressing the retirement conversion challenge: a global perspective

Across the globe, retirement systems are being reshaped in response to demographic and economic pressures. Longer lifespans, declining worker-to-retiree ratios, and the shift from defined benefit (DB) to defined contribution (DC) plans are raising questions about sustainability, access, and long-term security. Retirement plan stakeholders have long focused on the accumulation phase of saving, but increasingly the greater challenge lies in how workers convert their savings into dependable income that lasts through retirement.

To address this challenge, a recent TIAA Institute study examined 11 countries' retirement programs to identify relevant insights and practical applications for U.S. plan sponsors and policymakers.



Key takeaways

When retirees are left on their own to convert their savings into income, they rarely do.

Hybrid systems that blend elements of DB and DC plans offer the strongest potential path forward.

Integrating guaranteed* income options into plans and removing barriers to access significantly increases adoption.

A changing retirement landscape

Three major forces are driving global reforms. First, rising life expectancy is increasing the number of years workers must fund their retirement. Second, falling worker to retiree ratios are straining pay as you go systems and making future payments feel unstable. Third, the shift from DB plans to DC plans has transferred market, longevity and other risks from institutions to individuals.

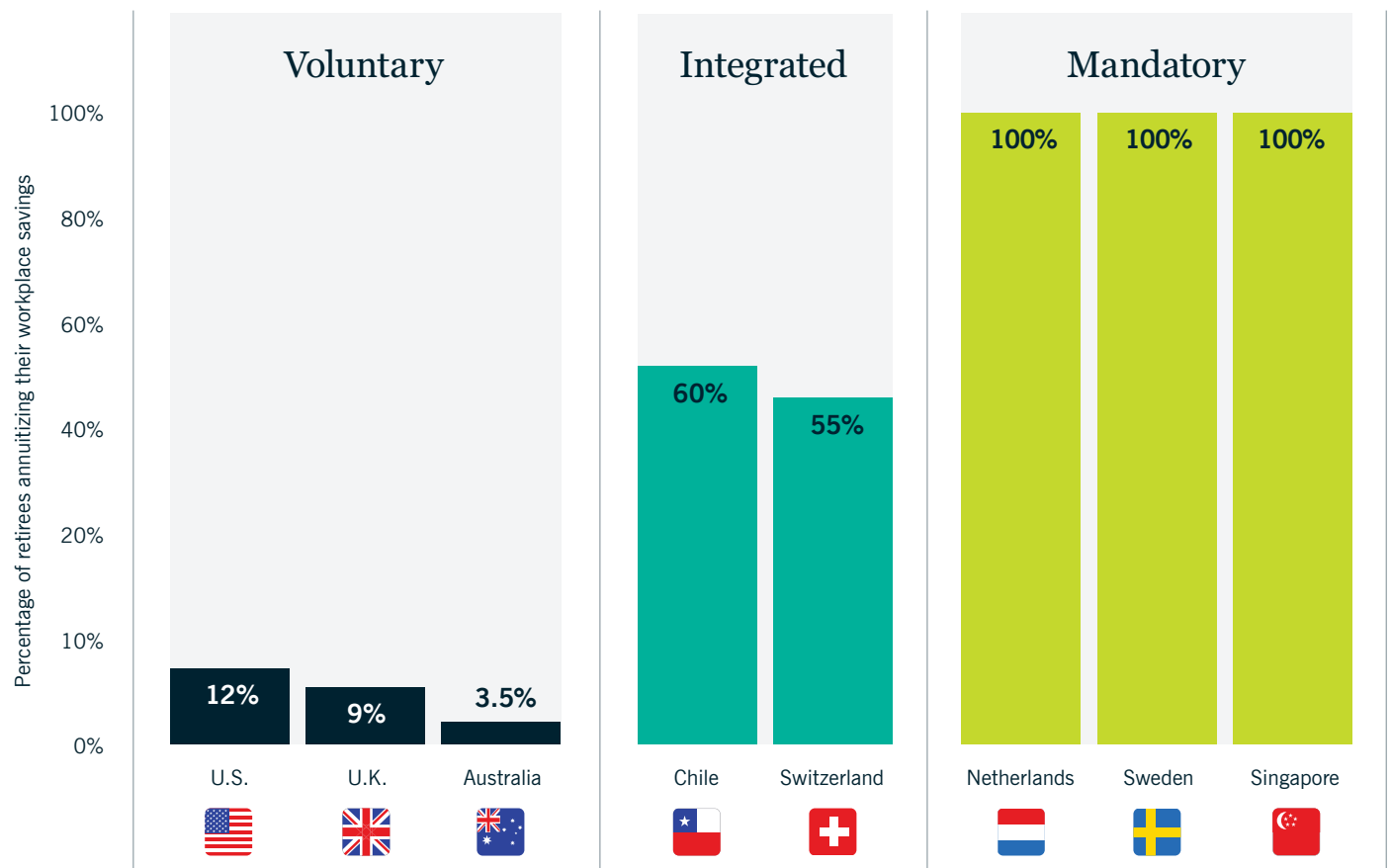
These factors are in turn creating a retirement conversion challenge for retirees. While some retirees value the flexibility of managing their own accounts in a DC plan, others may be unsure how to safely translate their balances into income. Or, some retirees may underspend out of fear, making retirement less enjoyable, but others might overspend early and face difficult choices later.

Around the world, workers typically have a familiar set of choices for withdrawing their retirement savings. Options can include full or partial lump-sum distributions, programmed term withdrawals, or variable or fixed annuities that offer guaranteed lifetime income.

While these paths appear straightforward, the choice architecture surrounding them can be the defining factor as to whether retirees annuitize their retirement savings. In fact, when annuitization is a voluntary opt-in choice, uptake remains low.

Integrating guaranteed income within the retirement plan fundamentally changes this dynamic. In plan annuities, default retirement income pathways and simplified election processes all help retirees adopt a solution that can lead to a more successful retirement.

Annuitization approach and rate of adoption



The spectrum of choice: from individual to collective

To assess how countries balance risk-sharing and participant choice, the research plotted retirement systems along a spectrum from Individual Choice (IC) to Collective Choice (CC).

IC **IC systems**, typically associated with DC plans, feature voluntary participation, broad investment choice and individuals bearing most of the investment and longevity risk.

CC **CC systems**, with a starting point close to DB plans, offer narrow individual discretion, emphasize risk pooling, and rely on fiduciary oversight to shield retirees from shocks.

While some countries fall into one of these two categories, a handful take a more balanced approach and offer participants the potential for market growth and flexibility while also helping mitigate risks like longevity.

Evaluating retirement systems: a consistent framework

As part of its research, the TIAA Institute developed a standardized framework to evaluate each country’s retirement system across four key attributes, enabling like-for-like comparisons of the various factors that define retirement systems.

In addition to the general findings above, the research identified some high-level lessons from each country. For example, the U.S. was noted for its clear rules on fiduciary oversight, while Japan heavily incentivizes private savings in its system. Elsewhere, Sweden has a flexible retirement age that helps encourage workers to retire later, while Switzerland is noteworthy in how it integrates annuitization as an option for participants.

◀ **Individual Choice (IC)**

Collective Choice (CC) ▶

 U.S.	 Germany	 UK	 Australia	 Chile	 Netherlands
 Canada				 Sweden	 Switzerland
 Japan				 Singapore	

Some countries have decided upon individual choice or collective choice systems, while others take a more balanced approach and offer market growth with flexibility.

Attribute	Definition	Key finding
Adequacy	Ability to support a retiree's standard of living for their full lifespan	Countries with the highest replacement rates in retirement also have the highest contribution rates during workers' careers
Financial stability	The long-run ability to maintain sufficient assets to support retirement incomes	Models that share risks between individuals and employers are typically more resilient
Fairness	Ability to provide good outcomes for participants across different age and income groups	Many countries struggle with gaps in coverage among workers, creating a disparity
Plan design	Effectiveness of the system's architecture to guide and incentivize workers to achieve good outcomes	Strong design turns good intentions into reliable outcomes

The global move toward hybrid systems

Retirement systems built around DC plans can help workers accumulate savings, offering flexibility and the potential for market-based growth. DB structures provide guaranteed lifetime income that can help protect retirees from longevity risk but can face sustainability challenges when promised benefits exceed available funding. There is an international trend toward hybrid systems, which offer a way to balance these strengths. The research identified five key elements of successful hybrid programs:

1. Universal participation in a high quality plan that also provides retirement income
2. Contribution rates that are high enough to fund meaningful retirement income
3. Risk-sharing across stakeholders, which supports long term sustainability
4. Flexibility and portability that is in-line with worker patterns and preferences
5. Fiduciary oversight, plan design and advice that can guide individuals to good decisions

Countries, legislators and providers are already taking steps toward hybrid systems designed to harness the best features of DB and DC plans. Such hybrid systems require a rebalancing of responsibilities and risk burdens between employers, workers and the government.

Trends influencing the move toward hybrid systems



Individual Choice countries are introducing more longevity risk-sharing and guaranteed income option



Collective Choice countries are shifting more risk to retirees and giving them more choice



Legislators are introducing initiatives that promote annuitization (e.g., retirement income covenant in Australia, the SECURE Acts in the U.S.)



Product providers are innovating in automated savings conversion, portability, pricing and other ways, depending on their countries' starting points

The way forward

Building systems that optimize retirement income requires an approach that draws on global experience while adapting to evolving workforce needs. The research provides elements of a blueprint for this new age of retirement systems:

- Hybrid models offer the strongest path forward and represent a promising and sustainable direction for future retirement design.
- Countries vary widely in their approaches, but there are lessons from each that can help inform more effective systems.
- Making retirement income accessible and easy for workers meaningfully increases the likelihood of uptake.

We believe that U.S. legislators and policymakers should prioritize reforms that make guaranteed lifetime income options an integrated part of the retirement planning process. This includes safe harbors for lifetime income providers, support for portability of guarantees, incentives for auto features, and exploration of collective risk sharing to create a stronger, fairer system while honoring individual choice. Policymakers should:

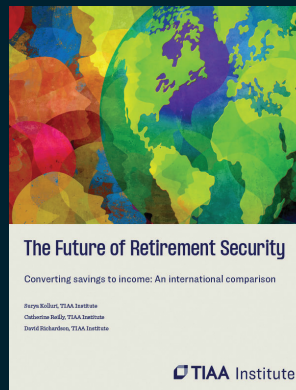
- ✓ Remove regulatory barriers to innovation
- ✓ Incentivize without mandating
- ✓ Embrace the hybrid future
- ✓ Act with urgency

Retirement security ultimately depends on getting the conversion moment right. As societies age and DC dominance grows, this challenge will determine whether decades of saving translate into genuine financial independence. The global evidence points clearly toward hybrid systems — frameworks that blend individual flexibility with collective protections and embed guaranteed income into intuitive plan designs. We believe that for the U.S., the path forward is both practical and urgent: design for income, share risks wisely, and make the best outcomes the easiest ones to choose. The destination is a retirement system where more workers can retire with confidence.


Read the full report

The Future of Retirement Security

Converting savings to income:
An international comparison



www.nuveen.com/en-us/insights/retirement/private-markets-research-study



We believe that a successful system needs to leverage the best elements of DB and DC plans to find a balance between the goals of adequacy, financial sustainability and fairness.

— Brendan McCarthy, Head of Nuveen Retirement Investing

*Any guarantees are backed by the claims-paying ability of the issuing company. Past performance is no guarantee of future results. Guarantees of fixed monthly payments are only associated with fixed annuities.

**The ability to annuitize is subject to plan rules. Converting/Exchanging some or all of your savings to income benefits (referred to as "annuitization") is a permanent decision. Once income benefit payments have begun, you are unable to change to another option.

There is no guarantee that an investment in a target date fund will provide adequate retirement income at or through retirement and investors can lose money at any stage of investment, even near or after the target date.

Asset allocation and diversification do not ensure a profit or protect against a loss. Be sure to see the relevant prospectus or offering document for full discussion of a target date investment option including determination of when the portfolio achieves its most conservative allocation.

Before investing, carefully consider fund investment objectives, risks, charges and expenses. For this and other information that should be read carefully, please request a prospectus or summary prospectus from your financial professional or Nuveen at 800.257.8787 or visit nuveen.com

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Investors should be aware that alternative investments are speculative, subject to substantial risks including the risks associated with limited liquidity, the potential use of leverage, potential short sales, currency exchange rates, and concentrated investments and may

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Target Date Funds: The principal value of the fund(s) is not guaranteed at any time, including at the target-date. The value of a target date fund will fluctuate and investors may lose money. There is no guarantee the Funds' investment objectives will be achieved. For example, it may not achieve its target allocations and even if it does, the asset allocations may not achieve the desired risk-return characteristics and may result in the fund underperforming other similar funds. The target date is an approximate date when investors may begin withdrawing from the Funds. Target-date funds are actively managed, so the asset allocation is subject to change and may vary from that shown. Also, once the target date has been reached, the Funds may be merged into another with the same asset allocation or possibly another with a more stable asset allocation. For Index Funds, a portfolio that tracks an index is subject to the risk that it may not fully track its index closely due to security selection and may underperform when factoring in fees, expenses, transaction costs, and the size and timing of shareholder purchases and redemptions. Target date funds are typically fund of funds subject to the risks of their underlying funds in proportion to each Funds' allocation. These risks may include those of fixed-income underlying funds risks, such as market risk, credit risk, interest rate/duration risk, call risk, tax risk, political risk, economic risk, and income risk. Typically the value of, and income generated by, fixed income investments will decrease or increase based on changes in market interest rates. As interest rates rise, bond prices fall and as interest rates fall, bond prices rise. The Funds' income could decline during periods of falling interest rates. Income is only one component of performance and investors should consider all of the risk factors for an asset class before investing. Credit risk refers to an issuer's ability to make interest and principal payments when due, as well as the prices of bonds declining when an issuer's credit quality is expected to deteriorate. Equity underlying funds risks are subject to market risk or the risk that stocks will decline in response to such factors as adverse company news or industry developments or a general economic decline. Non-U.S. investments involve risks such as currency fluctuation, political and economic instability, lack of liquidity and differing legal and accounting standards.

Real estate-related assets are less developed, more illiquid, and less transparent compared to traditional asset classes. Real estate investments are subject to various risks, including but not limited to, fluctuations in property values, higher expenses or lower income than expected, changes in economic conditions, currency values, environmental problems and liability, the cost of and ability to obtain insurance, and risks related to leasing of properties.

Private credit/debt investments, like alternative investments are not suitable for all investors given they are speculative, subject to substantial risks including the risks associated with credit risk, interest rate risk, currency risk, prepayment and extension risk, inflation risk, and risk of capital loss, limited liquidity, the potential use of leverage, potential short sales, concentrated investments and may involve complex tax structures and investment strategies. Credit risk refers to an issuer's ability to make interest and principal payments when due, as well as the prices of loans declining when an issuer's credit quality is expected to deteriorate.

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Real Assets are less developed, more illiquid, and less transparent compared to traditional asset classes. Real asset investments are subject to various risks generally associated with the ownership of real estate-related assets and foreign investing, including but not limited to, fluctuations in property values, higher expenses or lower income than expected, changes in economic conditions, currency values, environmental problems and liability, the cost of and ability to obtain insurance, and risks related to leasing of properties.

In addition to traditional equity risks like market risk or the risk that company values will decline in response to such factors as adverse company news, industry developments or a general economic decline, **private equity investments** involve significant risks specific to the asset class, including illiquidity, long investment horizons, capital call obligations, uncertain valuations, leverage/financing risk, and dependence on successful exits. Private equity investments are not publicly traded, making them difficult to value and sell.

The information contained is about the Nuveen target date strategies overall and also contains information about the Nuveen Lifecycle Income Index Collective Investment Trust Series described later on this presentation (Lifecycle CIT Series). Please note that the Lifecycle CIT Series is not a series of mutual funds and differs in many ways from the mutual funds using a similar strategy. Information about the mutual funds or management of the mutual funds should not be automatically applied to the CIT. The Lifecycle CIT series may be referred to as "Funds" in the following disclosures.

SEI Trust Company (the "Trustee") serves as the Trustee of the Nuveen Lifecycle Income CIT Series (the "Funds") and maintains ultimate fiduciary authority over the management of, and the investments made, in the Funds. The Funds are not mutual funds. The Funds are part of a Collective Investment Trust (the "Trust") operated by the Trustee. The Trustee is a trust company organized under the laws of the Commonwealth of Pennsylvania and wholly owned subsidiary of SEI Investments Company (SEI).

The Trust is managed by the Trustee based on the investment advice of Nuveen Fund Advisors, LLC, the investment adviser to the trust.

The Trust is a trust for the collective investment of assets of participating tax qualified pension and profit-sharing plans and related trusts, and governmental plans as more fully described in the Declaration of Trust. As a bank collective trust, the Trust is exempt from registration as an investment company.

Investing involves risk; principal loss is possible. There is no guarantee the Funds investment objectives will be achieved. The participant's conversion of some or all of their fixed annuity allocation to lifetime income benefits (i.e., annuitization) is a permanent decision, and once payments have begun, participants are unable to change to another option. TIAA may offer so-called "additional amounts" or "Loyalty Bonuses." The availability and amount of any additional amounts or Loyalty Bonuses is within the discretion of TIAA, they are determined annually and are not guaranteed other than for the period for which they are declared. Certain amounts or bonuses are only available when electing lifetime income, these amounts or bonuses are also discretionary and determined annually, and their amounts can vary depending on history of contributions to the fund. The terms of TIAA's Secure Income Account (SIA) specifically require that the SIA allocation generally cannot be rebalanced downward. So, if due to financial market movements or other forces, the SIA is overweighted versus target allocation, amounts generally cannot be removed from the SIA to correct the overweighting. Instead, the overweighting generally must be corrected through new cashflows into the fund. This represents a potential opportunity cost (because it may foreclose the ability to invest in higher earning equity investments for a period of time) and could thus impact performance of the fund over time. The performance of the fixed annuity component of the fund may be benchmarked against a bond index.

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