



# The Future of Retirement Security

Converting savings to income: An international comparison

Surya Kolluri, TIAA Institute

Catherine Reilly, TIAA Institute

David Richardson, TIAA Institute

# Contents

- Executive summary** . . . . .3
  - Global retirement systems: the imperative for reform . . . . .3
  - From savings to income: the global retirement conversion challenge . . . . .4
  - Switzerland and Chile: A tale of two countries . . . . . 11
  - The hybrid blueprint: Lessons for building better retirement income systems . . . . . 13
  - A spectrum of approaches to retirement system design . . . . . 15
- Measures of a healthy system** . . . . . 17
  - Adequacy: you get what you save for . . . . . 17
  - Financial sustainability: sharing the risks to keep the system afloat . . . . .20
  - Fairness: the trade-off between freedom of choice and fairness . . . . .23
  - Plan design: good design to help participants make good choices . . . . .27
- Conclusion** . . . . .30
  - We’re already in a hybrid world . . . . .30
- Conclusions for U.S. policymakers.** . . . . .32
  - The integration imperative: making income decisions part of the journey. .32
  - Removing regulatory barriers to innovation. . . . .32
  - Incentivizing without mandating . . . . .33
  - The hybrid future . . . . .34
  - The urgency of action . . . . .34
- Selected country profiles** . . . . .35
  - Australia . . . . .35
  - Canada . . . . .39
  - Chile . . . . .43
  - Germany . . . . .48
  - Japan . . . . .53
  - The Netherlands . . . . .58
  - Singapore . . . . .62
  - Sweden . . . . .66
  - Switzerland. . . . .70
  - United Kingdom . . . . .74
  - United States . . . . .79
- Topics for further investigation** . . . . .83

---

Any opinions expressed herein are those of the authors, and do not necessarily represent the views of TIAA, the TIAA Institute or any other organization with which the authors are affiliated.

# Executive summary

## Global retirement systems: the imperative for reform

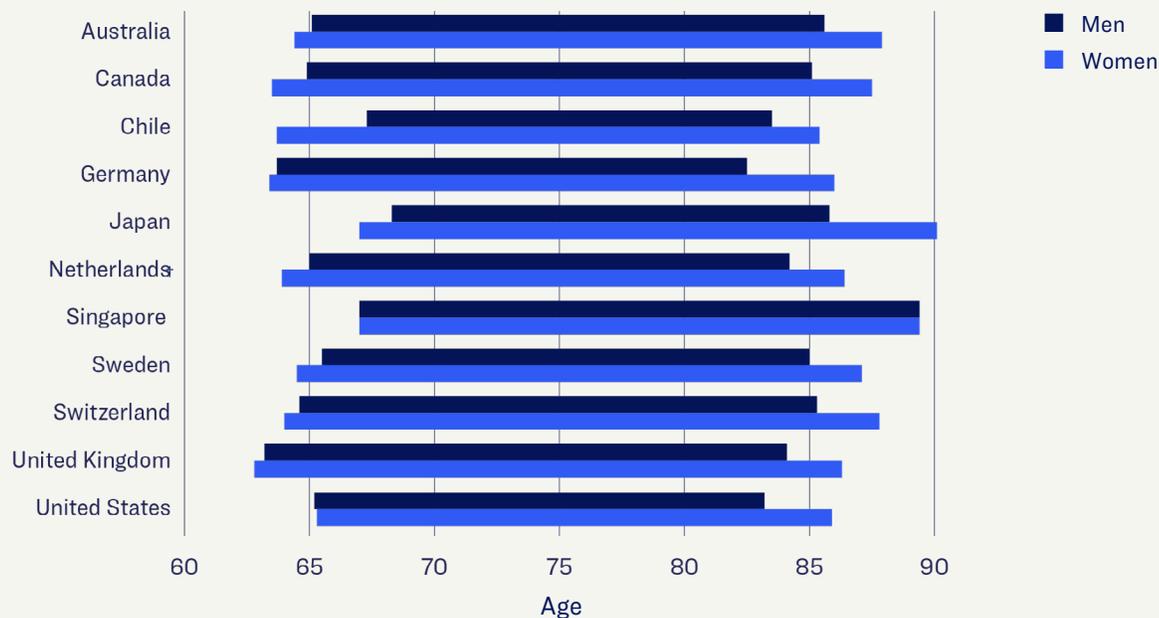
Countries around the world are considering and implementing reforms to their retirement systems for a variety of reasons, including increasing demographic and economic pressures. A key demographic driver is human longevity. For example, the average retiree can expect to spend about two decades in retirement. This has almost doubled from fifty years ago. In the United States, life expectancy has risen by 17 years since the Social Security program debuted nearly 90 years ago. This comes with tremendous opportunities, but it also comes with headwinds. Combined with lower birth rates, immigration challenges and lower productivity growth, countries are grappling with the conundrum of how to fund this expanded retirement period with a declining worker-to-retiree ratio.

Along with this demographic megatrend, ever fewer workers have access to Defined Benefit (DB) plans that promise workers a guaranteed income in retirement. Instead, many save for their own retirement through Defined Contribution (DC) plans, which do not automatically convert into income. Many of the reforms that we observe around the world revolve around the reaction to this change; that is, the retirement systems have moved from DB to DC and the countries are reevaluating these changes.

In this report, we study the experience of eleven different countries and apply a standard framework for understanding how various factors impact their retirement systems. Last year, we covered seven countries: the UK, U.S., Australia, Canada, Sweden, Singapore and the Netherlands. This year we have added four new countries: Chile, Switzerland, Japan and Germany. We also introduce a deep dive into how the different countries convert retirement savings into income after retirement. As before, our goal is to identify the best ideas from the different countries and use these to develop an actionable template for the well-designed retirement system of the future.

**CHART 1. EXPECTED DURATION OF RETIREMENT, MEN AND WOMEN**

From average effective retirement age to life expectancy



†Note: Separate data for men and women not available. Age based on re-employment age in 2021 to 2022. <https://www.mom.gov.sg/employment-practices/re-employment#eligibility>.

Source for Singapore: OECD (2022), *Pensions at a Glance Asia/Pacific 2022*, OECD Publishing, Paris, <https://doi.org/10.1787/2c555ff8-en>.

Source for all countries except Singapore: OECD (2023), *Pensions at a Glance 2023: OECD and G20 Indicators*, OECD Publishing, Paris, Figure 6.15, <https://doi.org/10.1787/678055dd-en>. Other references to this report will be abbreviated to “PAAG 2023.”

## From savings to income: the global retirement conversion challenge

As countries increasingly shift towards DC retirement plans in response to the unsustainability of traditional DB plans, they encounter the challenge of how the accumulated savings should be converted into income after retirement. Whereas DB plans provide a guaranteed lifetime income stream at retirement, many DC plans leave the decision on how to use the money after retirement up to the retiree. Some retirees welcome the freedom to manage their own assets; however, without the security of a regular income, many more struggle to understand how much they can safely spend. As a result, many retirees underspend, making their retirement less enjoyable than it could be.<sup>1</sup>

Even if the retirement plan does not convert savings into income after retirement, retirees can use their retirement savings to purchase an annuity. Annuities are available in all the countries in our study. However, people are notoriously reluctant to annuitize voluntarily, even though in many cases they would benefit economically. Part of this reluctance may be due to the additional effort required to obtain an annuity when it is not automatically provided as part of the plan.<sup>2</sup>

“Many Australian retirees are lost when it comes to managing their super. Some spend too quickly so they can qualify for the Age Pension while most underspend, unsure how to structure their withdrawals over 25 to 35 years of retirement.”<sup>3</sup>

The countries in our study employ a range of approaches to income after retirement. In some, retirees have full freedom to choose how to use their savings. At the other extreme, the savings are still converted into an income stream like in a DB plan, but the retiree can choose between different

income options. Not only does the range of choices vary across countries, the way in which the choices are presented also differs. Comparing the outcomes in different countries gives us valuable insights into how to design systems that empower people to make good decisions for a secure retirement.

### From supplement to retirement income: the evolving role of workplace plans

In most countries, the retirement system consists of a government-run, pay-as-you-go (PAYG) retirement benefit that is supplemented by funded workplace and private savings plans. Because PAYG government plans only allow retirees to receive benefits as a lifetime income stream, and private savings are often only used by a small share of retirees, our focus in this report is on workplace retirement plans and the choices that retirees make in these.

The division of labor between the PAYG government system and workplace retirement plans varies considerably by country, and this has an impact on the options that are offered at retirement age. At one extreme, the retirement systems in Chile and Singapore rely on mandatory workplace systems with minimal or no income from a PAYG government plan.<sup>4</sup> As a result, both countries require retirees to convert their savings into either an annuity or a programmed withdrawal (an income stream but without the lifetime guarantee of an annuity).

At the other extreme, Canada, Germany, Japan, UK and the U.S. all have a mandatory PAYG government plan combined with voluntary participation in a workplace retirement plan. These countries give retirees a high degree of freedom to decide how and when to withdraw their workplace retirement savings. In many cases, these workplace plans do not even offer annuities, so retirees wishing to convert their savings into lifetime income must seek their own provider.

1 David Blanchett and Michael Finker, “Retirees spend lifetime income, not savings,” Retirement Income Institute, April 2025.

2 Center for Retirement Research, “How Much Do People Value Annuities and Their Added Features?,” Jan. 2, 2024, <https://crr.bc.edu/how-much-do-people-value-annuities-and-their-added-features-2/>.

3 *The Sydney Morning Herald*, “Australian superannuation: should the government dictate how you spend yours?,” Jun. 3, 2023, <https://www.smh.com.au/money/super-and-retirement/should-the-government-dictate-how-you-spend-your-super-20250221-p5le44.html>.

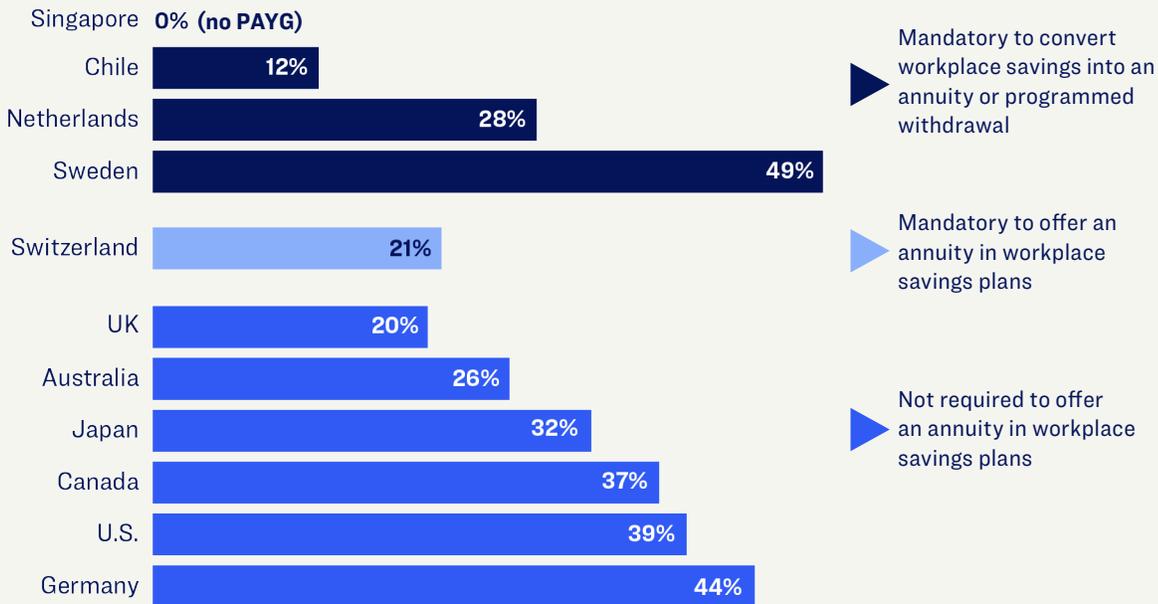
4 Both countries have additional government support systems for very low-income seniors. Chile is currently introducing reforms that will increase the level of PAYG benefits for targeted groups on a temporary basis.

Australia, the Netherlands, Sweden and Switzerland fall between these two extremes. All mandate both a PAYG government plan and a workplace retirement plan, although the relative importance of each differs by country. The approach to income in the workplace plan also varies, probably due to historical and cultural reasons. Australia and Switzerland allow retirees to choose between a range of income and lump sum options from their workplace plans, while the Netherlands and Sweden require balances to be converted into an income stream, with only minor lump sum withdrawals allowed.

**CHART 2. STRUCTURE OF THE SYSTEM**

Replacement rate from PAYG pension for average wage earner

Annuitization in workplace plans



Chile: The government pension is means-tested, support to lower income groups will increase as part of the current pension reform.  
 Australia: The Age Pension is means-tested but 69% of over 70-year-olds receive it. Source: Australian Institute of Health and Welfare, "Income support for older Australians," Sept. 7, 2023.

There are five main ways in which retirement savings can be withdrawn, the availability of these varies by country. Combining withdrawal methods (e.g. partial lump sum plus annuity) is also often available.

- 1 Full lump sum withdrawal:** the retiree can withdraw all their savings from the retirement plan.
- 2 Partial lump sum withdrawal:** the same as a full lump sum withdrawal, except the retiree only withdraws part of their savings. Some countries that do not allow full lump sum withdrawals allow partial withdrawals up to a limit (e.g. Singapore).
- 3 Programmed/term withdrawal:** all or part of the savings are converted into an income stream paid out over a predetermined time frame or until the balance is depleted. There is no guarantee that the income will last for the lifetime of the retiree.
- 4 Fixed annuity:** the savings are converted into a guaranteed lifetime income that is fixed or adjusted according to a predetermined formula (e.g. 2% cost of living adjustment or CPI index). These are available in all countries, but in some cases the retiree may have to purchase their own annuity on the retail market if their plan does not offer one (e.g. U.S. or UK).
- 5 Variable annuity:** the savings are converted into a lifetime income stream, but the level of the income can be adjusted up or down according to a formula usually linked to factors including market performance, plan solvency or cohort life expectancy.

### Too small to guarantee: when low balances mean no annuity

In some cases, the reason that retirees do not annuitize is that their savings balance is too low. In countries such as Chile or Singapore, which require retirees to convert their assets into an income stream, participants who do not reach the minimum asset threshold for annuitization receive their income as a programmed withdrawal instead. These payments are designed to last for the retiree's expected lifetime, but they lack the guarantee of an annuity. In the event of outliving their assets, these retirees are likely to be eligible for other forms of government support.

Programmed withdrawals are often available as an alternative even when retirees do have sufficient assets for annuitization. Required minimum distributions in the United States are a form of programmed withdrawal, so is the RRIF minimum withdrawal in Canada.

### The lump sum lockdown: many countries restrict cash-out options

Lump sum distributions, where participants withdraw all their assets from the retirement plan in one transaction,

are available in less than half the countries. Of course, just because the retiree withdraws all the assets does not necessarily mean they will spend the money imprudently. They may invest it in a different account, use it to purchase retirement products that their plan does not offer or deposit it in a bank. Nonetheless, doubtless due to concerns regarding the long-term adequacy of retirement savings, many countries forbid full lump sum withdrawals or place restrictions on how much retirees can access. For example, Singapore only allows participants to withdraw savings that exceed the required "full retirement sum."<sup>5</sup>

More countries allow participants to combine distribution options, e.g. a partial lump sum withdrawal combined with annuitization of the remainder of assets. Even when lump sum withdrawals are allowed, this either triggers a tax liability or means that the money no longer benefits from tax-protected status. Because tax rates in most countries are progressive, this means that large lump sum withdrawals are likely to be subject to heavy taxation.

5 Central Provident Fund Board, "How much CPF savings can I withdraw from age 55 to 64?," <https://www.cpf.gov.sg/service/article/how-much-cpf-savings-can-i-withdraw-from-age-55-to-64>.

CHART 3. LUMP SUM AVAILABILITY IN DIFFERENT COUNTRIES

LUMP SUM – FULL			LUMP SUM – PARTIAL		
Australia	Switzerland		Australia	Singapore	
Canada	UK		Canada	Sweden**	
Germany*	U.S.		Germany*	Switzerland	
Japan			Japan	UK	
			Netherlands**	U.S.	

This only applies to funded occupational plans – PAYG government plans only offer an income stream.

\*Depends on plan. \*\*Limited lump sum may be available in some plans.

### Beyond fixed payouts: the rise of flexible guaranteed income

The countries have different approaches to the type of annuities that they offer in retirement plans. Traditional fixed or income annuities, that guarantee a predetermined lifetime income stream, are available in all countries, although not necessarily through the retirement plan. Additionally, many countries are increasingly using “variable annuity” approaches that guarantee lifetime income but allow the level of payments to adjust under predetermined circumstances. These hybrid approaches combine the lifetime income of traditional DB with some of the flexibility of DC to keep the system financially sustainable while also improving income adequacy in retirement.

Some countries already employ flexible mechanisms to adjust payments from their public PAYG systems based on economic growth or changes in longevity. For example, Japan employs the “macroeconomic slide” mechanism and Sweden uses “notional accounts”, where the benefit accrual rate depends on economic growth. While discussion typically centers on the ability to use adjustments to freeze or cut benefits, they can also be used to raise them. In fact, Sweden recently announced that due to strong economic growth the pension system is now over-capitalized, and pension payments will subsequently rise in 2026.

“ Sweden agrees mechanism to share pension system surplus with pensioners.<sup>6</sup>

Likewise, in workplace plans, countries are increasingly employing variable annuity approaches that allow payments to adjust both up and down in response to factors such as market performance, plan solvency or life expectancy. Because the investment portfolios underlying variable annuities typically retain a higher degree of fairness exposure than fixed annuities, these should also deliver higher income over time.

The specific design of these variable annuity solutions varies widely. For example, in Sweden, the “fondförsäkring” option of the premiepension (funded portion of the government pension) allows participants to select and change the investment funds underlying the income stream.<sup>7</sup> More risk-averse Swedish retirees are likely to prefer the traditional insurance (traditionell försäkring) income option where the pensions regulator manages the pooled portfolio. Even this option has some variability, as it consists of a 70% guaranteed base and 30% variable component which depends on fund performance. Similarly, in the Netherlands, participants can choose between a traditional fixed pension benefit and a variable benefit where the income can fluctuate depending on market performance.<sup>8</sup>

Collective Defined Contribution plans (CDC), which pool participant assets to provide an income stream that can be adjusted based on plan solvency, also provide lifetime income which may be adjusted if necessary. In the UK, the Royal Mail has recently launched the first CDC plan, and the

6 Investments and Pensions Europe, Aug. 29, 2025.

7 Pensionsmyndighetens startside, “Premiepensionen när du går i pension,” Sept. 2025, <https://www.pensionsmyndigheten.se/ga-i-pension/planera-din-pension/premiepensionen-nar-du-gar-i-pension>.

8 Nationale Nederlanden, “Choices concerning your pension benefit,” <https://www.nn.nl/EN-Particulier/Your-pension-benefit-choices.htm>.

government is exploring draft legislation to extend the availability of CDC.<sup>9,10</sup> Likewise, the Australian Retirement Trust’s Lifetime Pension product pools retiree assets to pay an income stream that can rise or fall depending on market performance.<sup>11</sup>

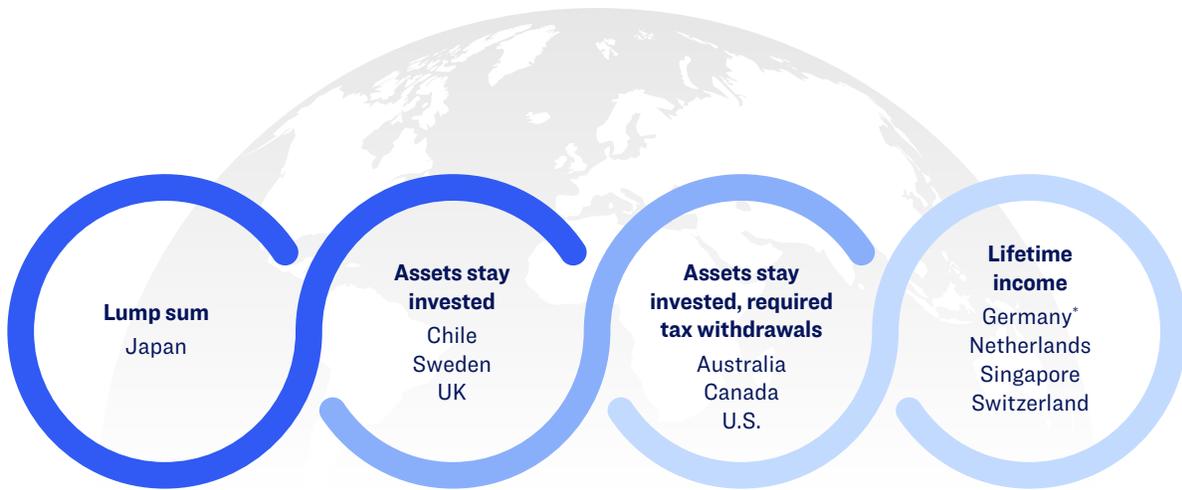
“ I believe CDC has huge potential to benefit pension savers. At a fixed cost to employers they can have the assurance of an affordable regular income in retirement by sharing risk.<sup>12</sup>

**Choice architecture can matter more than the range of choices**

During the savings phase most people tend to stay with the default option offered by their retirement plan. Some countries also have defaults for the retirement phase. In Switzerland and Singapore, the plan will automatically start to pay annuity income to any retirees who have not taken engaged by age 70. By contrast, a passive Japanese retiree will receive a lump sum payment of their retirement savings. In most other countries, the savings will remain invested, although the tax system may mandate minimum annual withdrawal amounts.

When annuitization is completely voluntary, even if annuities are widely available, annuitization rates are usually very low. Policymakers, concerned that retirees are underestimating the need for guaranteed lifetime income, have embarked on a range of initiatives to integrate annuities more closely into retirement plans. For example, in Australia, the Retirement Income Covenant requires trustees to formulate, regularly review and give effect to a retirement income strategy. In the U.S., the Secure Act included provisions making it easier for DC plans to offer retirement income products.<sup>13,14</sup> In Australia, annuitized assets also benefit from favorable treatment when calculating eligibility for the Age Pension.<sup>15</sup>

**CHART 4. DEFAULT FOR DISTRIBUTION**



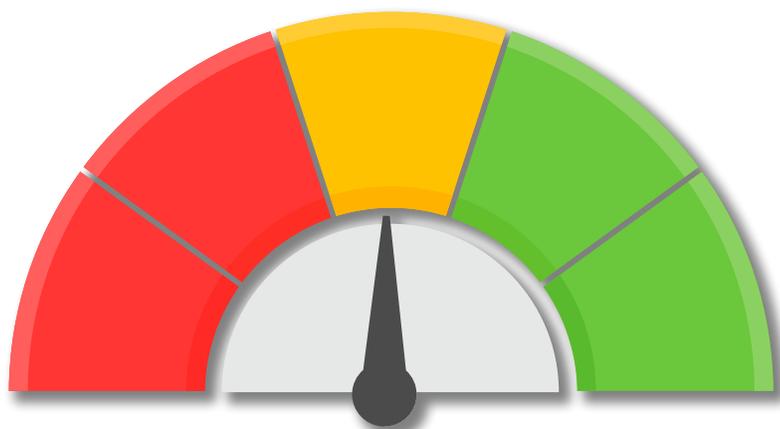
\*Depends on plan.

9 PensionsAge, “Royal Mail launches UK’s first CDC scheme,” July 10, 2024, <https://www.pensionsage.com/pa/Royal-Mail-launches-CDC-scheme.php>.  
 10 Department for Work and Pensions, “The Occupational Pension Schemes (Collective Money Purchase Schemes) (Extension to Unconnected Multiple Employer Schemes and Miscellaneous Provisions) Regulations 2025,” Oct. 8, 2024, <https://www.gov.uk/government/consultations/the-occupational-pension-schemes-collective-money-purchase-schemes-extension-to-unconnected-multiple-employer-schemes-and-miscellaneous-provisions>.  
 11 Australian Retirement Trust, “Lifetime Pension: Your income for life,” <https://www.australianretirementtrust.com.au/retirement/lifetime-pension>.  
 12 Laura Trott MP, Minister for Pensions in the Government response to the consultation on broadening the collective defined contribution framework, July 2023.  
 13 David Bell and Geoff Warren, *Retirement Magazine*, “Three years after RIC, everybody must do more to solve retirement,” Jun. 30, 2025, <https://www.investmentmagazine.com.au/2025/06/three-years-after-ric-everybody-must-do-more-to-solve-retirement/>.  
 14 Groom Law Group, “Lifetime Income Provisions Under the SECURE Act,” Feb. 6, 2020, <https://www.groom.com/resources/lifetime-income-provisions-under-the-secure-act/>.  
 15 Australian Government, Services Australia, “Income streams,” Dec. 3, 2024, <https://www.servicesaustralia.gov.au/income-streams?context=22526>.

Traditional DB plans typically offer annuities directly. In other types of plans, the extent to which retirees need to exert themselves to access annuities in the different countries clearly affects annuitization rates. The countries represent a wide range of approaches: at one extreme, the Netherlands, Singapore and Sweden mandate annuitization for most retirees, allowing them to only make limited choices regarding annuity features. The annuity is offered by the same retirement plan, also minimizing friction. At the other extreme, in the UK, Australia, U.S., Canada, Japan and Germany, annuitization of assets in occupational plans is voluntary, the annuity is provided by an independent insurer and, in many cases, the plan may not even offer an annuity distribution option. This means that retirees wishing to purchase an annuity may have to go to considerable trouble to do so independently through the retail market. Unsurprisingly, annuitization rates in these countries tend to be very low.

Chile and Switzerland have an interesting middle of the road approach, where retirees must be offered an annuity, but they can choose whether to take it. In Chile, retirees can opt for a programmed withdrawal instead of annuitization; in Switzerland, they can choose a full or partial lump sum. Analyzing the choices that retirees are making in these countries, where most of the friction relating to annuity purchase has been removed, can offer valuable insights into which approaches are likely to be successful in other countries.

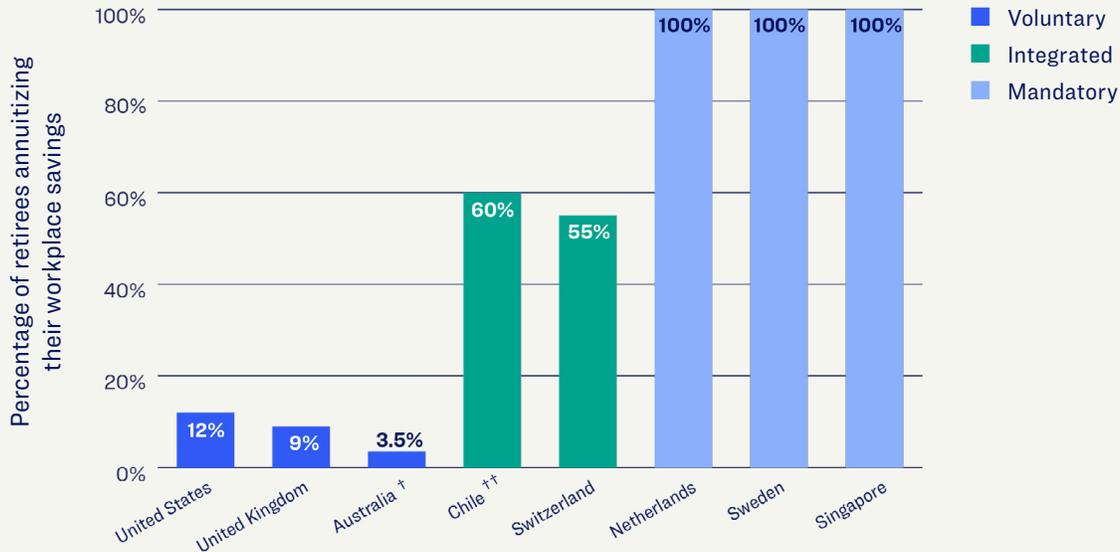
**CHART 5. HOW ANNUITY IS PROVIDED**



	<b>HARDEST</b> Retiree must buy annuity from independent insurer	<b>EASIER</b> Plan menu offers annuity from independent insurer	<b>EASIEST</b> Plan issues annuity
<b>Australia</b>	Sometimes	Sometimes	
<b>Canada</b>	Often	Sometimes	DB only
<b>Chile</b>		Always	
<b>Germany</b>	Sometimes	Sometimes	Sometimes
<b>Japan</b>	Often	Sometimes	DB only
<b>Netherlands</b>			Always*
<b>Singapore</b>			Always
<b>Sweden</b>			Always*
<b>Switzerland</b>			Always
<b>UK</b>	Often	Sometimes	DB only
<b>U.S.</b>	Often	Sometimes	DB only

\*Retiree may have the option to choose to take an annuity from a different provider if desired.

**CHART 6. ANNUITIZATION APPROACH AND RATE**



†Share of assets held in annuities. ††Percentage of retirees with a balance high enough to qualify for annuitization .

United States: Center for Retirement Research, “How much do people value annuities and their added features?”, Jan. 2, 2024.

United Kingdom: FCA - Retirement Income Market Data 2024/25.

Australia: Retirement phase of superannuation, Australian Treasury Discussion paper, Dec. 2023.

Chile: Center for Retirement Research, “Competition, Asymmetric Information, and the Annuity Puzzle: Evidence from a Government-Run Exchange in Chile,” Jan. 2, 2019, <https://crr.bc.edu/competition-asymmetric-information-and-the-annuity-puzzle-evidence-from-a-government-run-exchange-in-chile/>.

Switzerland: Piera Bello, Agar Brugiavini, and Vincenzo Galasso, *Journal of Risk and Insurance*, “Annuity puzzle: Evidence from a Swiss pension fund,” May 22, 2024, <https://doi.org/10.1111/jori.12473>.

Data unavailable for Canada, Germany and Japan.



## Switzerland and Chile: A tale of two countries

Despite being located on different continents and in different hemispheres, Chile and Switzerland have many things in common. Not only are both known for their stunning mountainous landscapes and quality wine production, they also both employ a similar approach to annuitization at retirement. Neither of them mandates annuitization, but both have also minimized the behavioral obstacles to annuitization by fully integrating it into the system. The outcomes in the two countries are surprisingly consistent, providing valuable insights into what factors influence retiree decisions on annuitization.

In Chile, retirees with assets above a minimum balance must choose between converting their savings into an annuity, a programmed withdrawal or a combination of the two.<sup>16</sup> All retirees must use the government-run centralized exchange “SCOMP”, to access their savings, where they receive quotes for both annuities and programmed withdrawals.<sup>17</sup> The annuity providers in Chile are external insurance companies, not the retirement plan itself. In Switzerland, the retirement plan itself provides the annuity. Retirees can choose whether to take an annuity, a lump sum withdrawal or a combination of the two from their retirement plan.

In both countries, annuities offer good value for money. In Switzerland, the annuity conversion rate is regulated and more favorable than market rates. In Chile, despite adverse selection among annuitants, annuities are priced very close to the actuarially fair rate.<sup>18</sup> Both countries currently only offer income annuities as retirement plan distribution options, although proposals to introduce variable annuities have been floated in Chile.<sup>19</sup>

16 Those with a balance below the minimum are only eligible for the programmed withdrawal option. Retirees can also opt for a deferred annuity, where they take programmed withdrawals for a few years before annuitizing the remaining assets.

17 Superintendencia de Pensiones, “What is the Pension Amount Consultation and Offering System (SCOMP)?,” <https://www.spensiones.cl/portal/institucional/594/w3-article-3584.html>.

18 Center for Retirement Research, “Competition, Asymmetric Information, And The Annuity Puzzle: Evidence From A Government-Run Exchange In Chile,” Jan.3, 2019, <https://crr.bc.edu/competition-asymmetric-information-and-the-annuity-puzzle-evidence-from-a-government-run-exchange-in-chile/>.

19 Olga Fuentes, Richard K. Fullmer, and Manuel Enrique Garcia Huitron, SSRN, “A Sustainable, Variable Lifetime Retirement Income Solution for the Chilean Pension System,” revised Apr. 2024, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4045646](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4045646).



By integrating the annuity purchase seamlessly into the system, both Chile and Switzerland have achieved relatively high annuitization rates without a mandate. In Chile, about 50% of those who have a high enough balance to qualify for annuitization select an annuity; in Switzerland, the about half of retirees select either full or partial annuitization.<sup>20</sup> The annuity is the default distribution option in Switzerland and retirees do not have to make an active choice between different annuity providers. In Chile, in the absence of retiree engagement the assets will stay invested, but the retiree cannot access the assets without soliciting a quote from SCOMP and deciding on whether to choose an annuity or a programmed withdrawal.

As we would have expected, in both countries, middle income groups are the most likely annuitants. In Chile, most retirees between the 20th and 80th wealth percentiles buy annuities, with annuitization rates dropping sharply for the lowest and highest income groups.<sup>21</sup> About 10% of retirees have balances below the minimum required for annuitization (this minimum is likely to be lowered in the forthcoming pension reform bill). Likewise in Switzerland, annuitization rates are highest between the 30th and 90th wealth percentiles, with a sharp drop off particularly among the lowest wealth groups.<sup>22</sup>

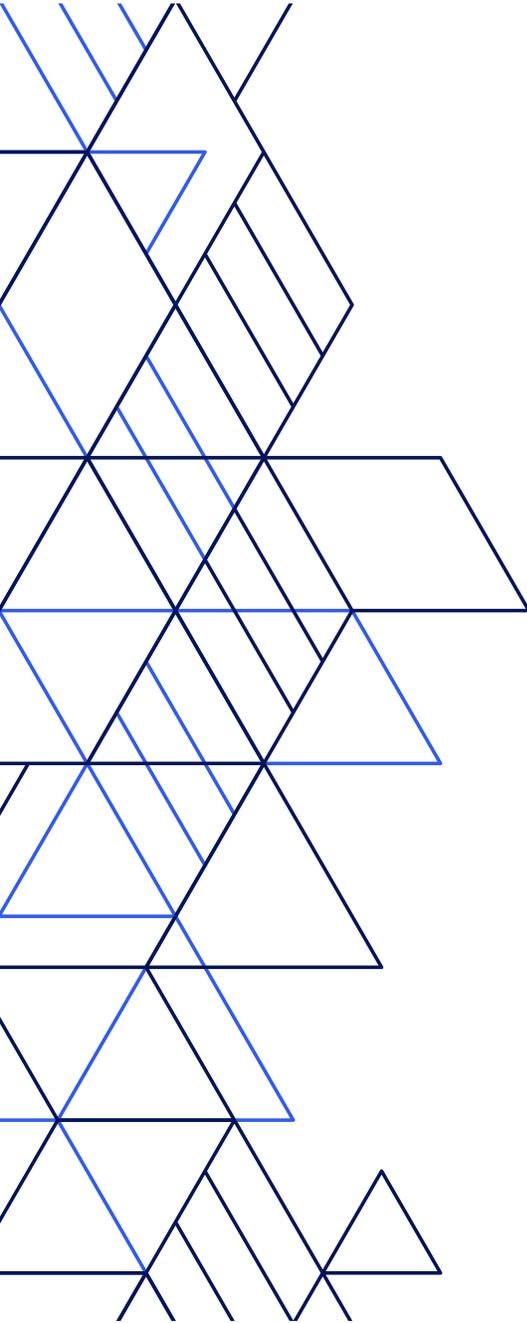
When annuitization is easy, retirees appear to be making informed decisions on annuitization in response to financial incentives and other relevant factors. Based on Swiss data, cantons which levy higher tax rates on annuity income experience lower annuitization rates, while more favorable annuity conversion coefficients increase the likelihood of annuitization. Women, who have longer life-expectancy, are more likely to annuitize than men. People from cantons with higher mortality are less likely to select the annuitization option. Interestingly, cultural preferences also appear to play a role in the annuitization decision, with French and Italian speakers more likely to opt for lump sum withdrawals than German speakers.<sup>23</sup>

20 Piera Bello, Agar Brugiavini, and Vincenzo Galasso, *Journal of Risk and Insurance*, “Annuity puzzle: Evidence from a Swiss pension fund,” May 22, 2024, <https://doi.org/10.1111/jori.12473>.

21 Center for Retirement Research, “Competition, Asymmetric Information, And The Annuity Puzzle: Evidence From A Government-Run Exchange In Chile,” Jan.3, 2019, <https://crr.bc.edu/competition-asymmetric-information-and-the-annuity-puzzle-evidence-from-a-government-run-exchange-in-chile/>.

22 Piera Bello, Agar Brugiavini, and Vincenzo Galasso, *Journal of Risk and Insurance*, “Annuity puzzle: Evidence from a Swiss pension fund,” May 22, 2024, <https://doi.org/10.1111/jori.12473>.

23 Piera Bello, Agar Brugiavini, and Vincenzo Galasso, *Journal of Risk and Insurance*, “Annuity puzzle: Evidence from a Swiss pension fund,” May 22, 2024, <https://doi.org/10.1111/jori.12473>.



## The hybrid blueprint: Lessons for building better retirement income systems

### KEY TAKEAWAYS

- **The future is hybrid:** combine the lifetime income of DB with the flexibility and funding of DC
- **Global approaches vary widely:** no system is perfect, but we can learn from what works and why
- **Use the path of least resistance:** people are much more likely to annuitize when it is the easy option

As traditional DB pensions become ever more unsustainable, countries are increasingly turning to hybrid retirement systems that merge features of both DB and DC plans to address both financial sustainability and adequacy concerns in retirement readiness. One of the weaknesses of traditional DC plans is the lack of an automated pathway for converting the accumulated savings into an income stream that is guaranteed to last all through retirement. Many retirees would benefit from annuitizing at least part of their savings even when this is not mandated, but due to behavioral obstacles few do.

The process for accessing retirement savings clearly has a large effect on whether employees choose to convert their balance into income. If annuitization is completely voluntary and dependent on individuals seeking out products and providers for themselves, annuitization rates are always very low. At the other extreme, mandating annuitization is effective, but it reduces choice, may also lead to retirees annuitizing more than they need to and is also likely to be very unpopular if introduced as a new measure.

### Integration is key: making income choices part of the journey

The Swiss and Chilean experiences show that it is possible to significantly increase annuitization rates without a mandate. The annuity may be offered by the plan itself, like in Switzerland, or through an external insurer, like in Chile; the key factor is to incorporate the decision on whether to purchase an annuity into the basic process for accessing retirement savings. In both countries, the same framework, with a limited range of distribution options, applies to all plans on a national level. This undoubtedly makes it easier to build awareness and familiarize retirees with the system compared to a very fragmented market with multiple available solutions. These factors all reduce friction and increase the likelihood that people will select the annuity, even without a mandate.



“The transition from saving to spending represents one of the most critical moments in a retiree’s financial journey. Our global experience shows that when converting savings into income is seamlessly integrated into the retirement process, rather than treated as a separate, complex decision, participants are far more likely to make choices that support their long-term financial security. The key is removing friction while preserving meaningful choice.”

Harriet Steel, Global Head of Institutional Distribution, Nuveen

## Early stages: How Australia and the U.S. are approaching integration

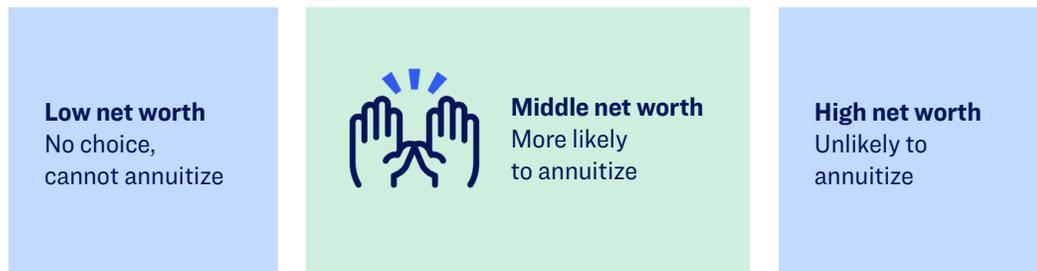
Australia has already taken a step in this direction by introducing the Lifetime Income Covenant, which requires superannuation fund trustees to formulate, regularly review and give effect to a retirement income strategy (RIS) for their members.<sup>24</sup> Likewise, the new lifetime income solutions that have recently been launched in some DC plans in the U.S., such as Nuveen's Lifecycle Income<sup>25</sup> or Blackrock's Lifepath Paycheck,<sup>26</sup> are a good first step in making the decision on whether or not to purchase an annuity an integrated part of the retirement process.

It is likely that these new solutions will take time to gain significant adoption, particularly as the rest of the retirement infrastructure will need time to develop. Australia, which has a small number of very large superannuation funds and a national framework for retirement income inclusion, may see faster progress than the U.S., where most employers still sponsor their own retirement plans and there is no national requirement for plans to offer a retirement income option.

## The Goldilocks effect: why middle-income earners annuitize most

Annuitization is not optimal for all participants. The Chilean and Swiss experience shows that retirees in the middle wealth brackets are most likely to annuitize. This fits with the intuition that these are also most likely to benefit from annuitization. Those with very low wealth will not have enough assets to generate a meaningful income in retirement and are likely to receive a relatively high replacement rate from social support programs. High net worth individuals, on the other hand, are reluctant to relinquish control over their assets and place a higher emphasis on bequest motives.

### ANNUITIZATION CHOICES



## Beyond fixed payouts: the case for flexible guaranteed income

Guaranteed income for life does not have to mean a fixed annuity. Many countries, such as Sweden or Japan, already incorporate adjustment mechanisms that allow small adjustments to state pension benefits depending on economic circumstances. Likewise, in workplace plans, variable annuity structures where part of the assets stay invested in the market are likely to generate higher income in the long term, even if this means that income levels may fluctuate on an annual basis. A hybrid approach to retirement can also mean a hybrid approach to income.

24 David Bell and Geoff Warren, *Retirement Magazine*, "Three years after RIC, everybody must do more to solve retirement," June 30, 2025, <https://www.investmentmagazine.com.au/2025/06/three-years-after-ric-everybody-must-do-more-to-solve-retirement/>.

25 "Nuveen Lifecycle Income Index CIT Series," <https://www.nuveen.com/en-us/investments/retirement/nuveen-lifecycle-income-index-series>.

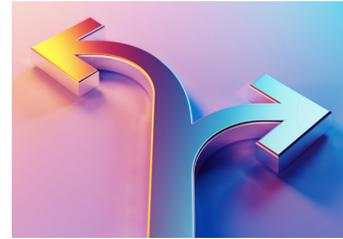
26 BlackRock, "Retirement income you can rely on," <https://www.blackrock.com/institutions/en-us/solutions/generating-retirement-income>.

## A spectrum of approaches to retirement system design

The countries selected for this report offer a range of approaches to their retirement systems. At one extreme, “Individual Choice” countries place substantial emphasis on individual responsibility and choice. The U.S. and Canada are good examples of countries where workplace retirement plans are voluntary for both employers and employees, and employees have substantial discretion to choose their investments during both their working and retirement years. At the other extreme, “Collective Choice” countries place more emphasis on collective risk sharing and limit individual choice. For example, in the Netherlands, workplace retirement plans are mandatory for most employers and employees, and employees have limited choices during their working and retirement years.

Countries can combine elements from both the collective and individual choice models. Rather than a binary categorization, the countries fit along a spectrum between the two extremes. The U.S., Canada and Japan score highest in terms of individual choice, followed by Germany, the UK and Australia. At the other extreme, the Netherlands and Switzerland have the most collective systems, followed by Chile, Sweden and Singapore.

**Top individual-choice systems:**  
U.S., Canada, Japan



**Most collective systems:**  
The Netherlands, Switzerland

### A SPECTRUM OF CHOICE



#### Individual Choice (IC)

Substantial emphasis on individual responsibility and choice. Participants manage their own investment and longevity risk.

#### Collective Choice (CC)

More emphasis on collective risk sharing and limited individual choice. Most investment and longevity risk managed collectively.



To learn from these countries, we developed a framework describing the *four key attributes* of a successful retirement system:



**Adequacy:** the ability of the system to provide enough income for retirees to maintain their standard of living throughout retirement



**Fairness:** the ability of the system to provide good (but not necessarily equal) outcomes for participants across different age and income groups



**Financial sustainability:** the long-run ability of the system to maintain sufficient assets (through contributions and returns) to support retirement incomes

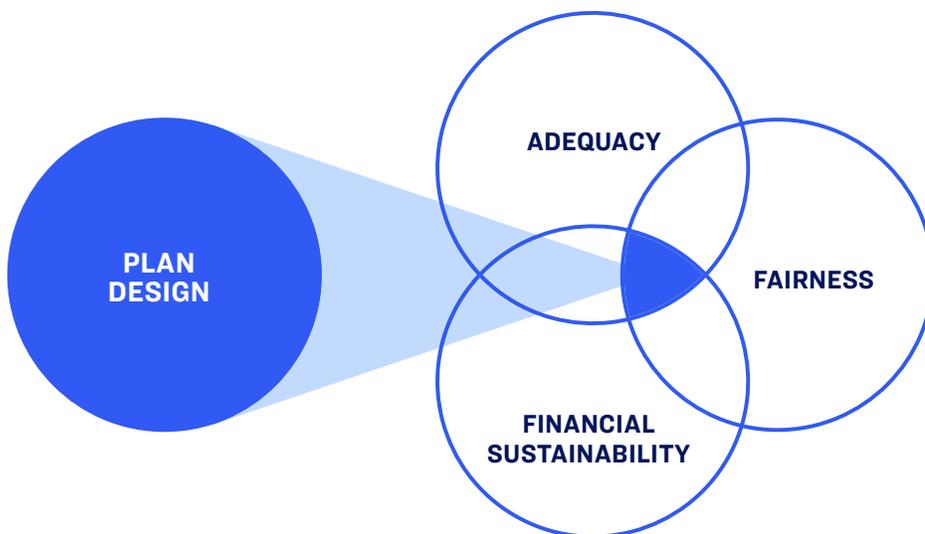


**Plan design:** the effectiveness of the system’s design architecture in guiding and incentivizing workers and retirees to achieve good outcomes

A successful system must strike a balance between the first three elements, as it is not possible to maximize all of them simultaneously. Adequate retirement income, i.e., income at a high replacement rate, may not be financially sustainable in the long run. High replacement rates may also not be fair if older people receive high payouts at the expense of younger generations. Comparatively, measures to increase financial sustainability typically come at the cost of adequacy and perhaps fairness, if lower-income people are unable to remain out of poverty in retirement.

Plan design incorporates elements that make the system as effective as possible at delivering good outcomes for retirees. It should include provisions for adequacy of contributions, a diversified investment portfolio and the possibility of lifetime retirement income. In addition to providing multiple channels for education, guidance and advice, it should also have measures that ensure good governance and transparency and make it easy for participants to take their savings with them throughout their careers.

We first review the high-level takeaways for the group of countries. We then describe and evaluate each country separately, after which we present key takeaways for the policymakers, plan sponsors and the retirement industry in the United States.



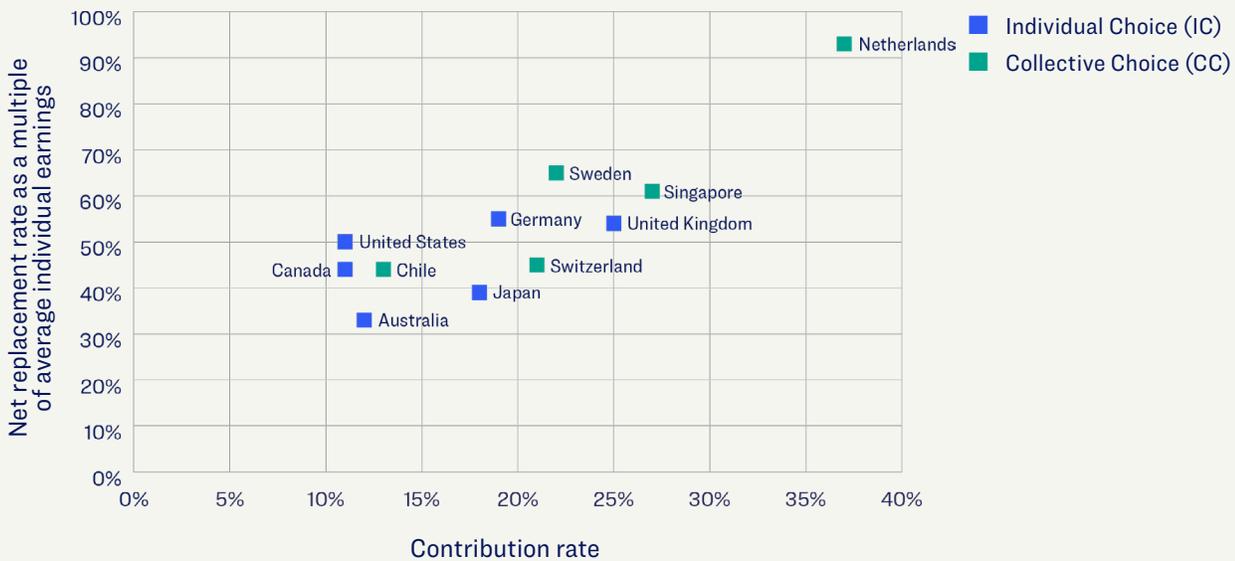
# Measures of a healthy system



## Adequacy: you get what you save for

There are no shortcuts: The countries in our study with the highest replacement rates in retirement also have the highest contribution rates during the working career (Chart 7). The Netherlands, which typically achieves high scores on global comparisons of retirement systems, does this by having a mandatory total pension contribution rate (employer plus employee) of 37% of average salary. Overall, the “individual choice” countries tend to have lower mandatory contribution rates and corresponding lower replacement rates in retirement.

**CHART 7. PROJECTED NET REPLACEMENT RATE FOR FULL-CAREER AVERAGE INCOME EARNER FROM CURRENT MANDATORY SYSTEM†**



†Note: This includes the government system and the workplace system when it is mandatory. For the U.S. and Canada, where workplace savings are voluntary, the replacement rate only includes Social Security (U.S.) or CPP/QPP (Canada).

Source for contribution rates: OECD PAAG 2023, table 8.1, except:

Australia: Superannuation rate starting 2025, <https://www.superguide.com.au/how-super-works/superannuation-guarantee-sg-contributions-rate#:~:text=changes%20over%20time.-,What%20is%20the%20current%20Superannuation%20Guarantee%20rate%3F,it%20is%20scheduled%20to%20stay>.

Singapore: average of contribution rates to ordinary and special accounts up to age 55, [https://www.cpf.gov.sg/content/dam/web/employer/employer-obligations/documents/CPFAllocationRatesfrom\\_1\\_January\\_2024.pdf](https://www.cpf.gov.sg/content/dam/web/employer/employer-obligations/documents/CPFAllocationRatesfrom_1_January_2024.pdf).

United Kingdom: author calculations based on national insurance and auto-enrollment contribution rates for average income earner, <https://www.gov.uk/national-insurance/how-much-you-pay>.

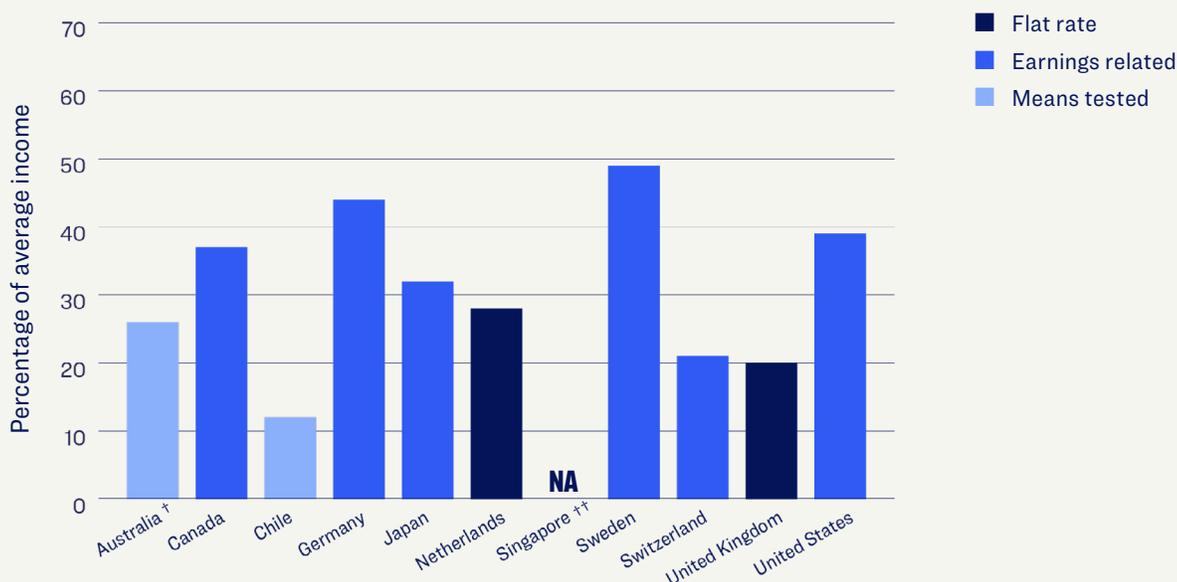
Source for replacement rates: PAAG 2023, table 4.5, projected net replacement rate for an individual entering the labor market at age 22 in 2022 based on current tax and contribution rules except for Singapore: OECD country profile.

Most of the countries in our study have a mandatory, pay-as-you-go (PAYG) government pension as the foundation of their retirement system. This may be a flat rate or related to contributions and earnings history. The replacement rate from the government pension for an average income earner varies from about 20% in the United Kingdom to just under 50% in Sweden (Chart 8). In addition to the government pension, most countries also have a workplace retirement plan. Singapore is the only country without any government pension. Instead, it mandates private savings and offers additional support to low-income earners. Chile initially had a similar approach, but has steadily been increasing the level of the government pension, particularly for targeted low-income groups.

Uniquely, in the Australian system retirees can only access the Age Pension once they have drawn down their assets to a certain level. While 67% of retirees receive the Age Pension,<sup>27</sup> they may start payments at different ages. Because of this discontinuity, and because the Age Pension is financed through general revenue instead of direct contributions, the system is difficult to model. Thus, both the replacement and contribution rates in Chart 8 are probably understated. According to the Australian Treasury, the actual replacement rate is closer to 60% to 70%.<sup>28</sup> Based on our calculations, this would be equivalent to a contribution rate of about 21% once the cost of the Age Pension is considered.<sup>29</sup>

In addition to the state retirement plan, all eleven countries in our study also have a workplace retirement system. This may be voluntary, mandatory, or mandatory with an employee opt-out. Again, we see that this is usually mandatory in the Collective Choice countries, but may be voluntary or opt-out in the Individual Choice countries. Most of the countries in this report have accumulated substantial levels of workplace retirement assets; however, these assets are only included in the replacement rate calculations for the countries where these are part of the mandatory system and available to all workers. In countries such as the United States and Canada where workers have accumulated substantial workplace assets through voluntary plans, the actual replacement rate for many retirees will be higher (Chart 9). Germany, where employee participation in workplace retirement plans is voluntary, is an outlier with a very low level of retirement assets. Legacy plans are typically unfunded, whereas newer plans are predominantly provided through insurance contracts.

**CHART 8. GROSS REPLACEMENT RATE FROM STATE PENSION AS A PERCENT OF AVERAGE INCOME (SINGLE PERSON)**



We use gross replacement rates (before the impact of taxes) as net data is not available.

†Only received once DC assets have been depleted. ††Singapore does not have a separate state pension.

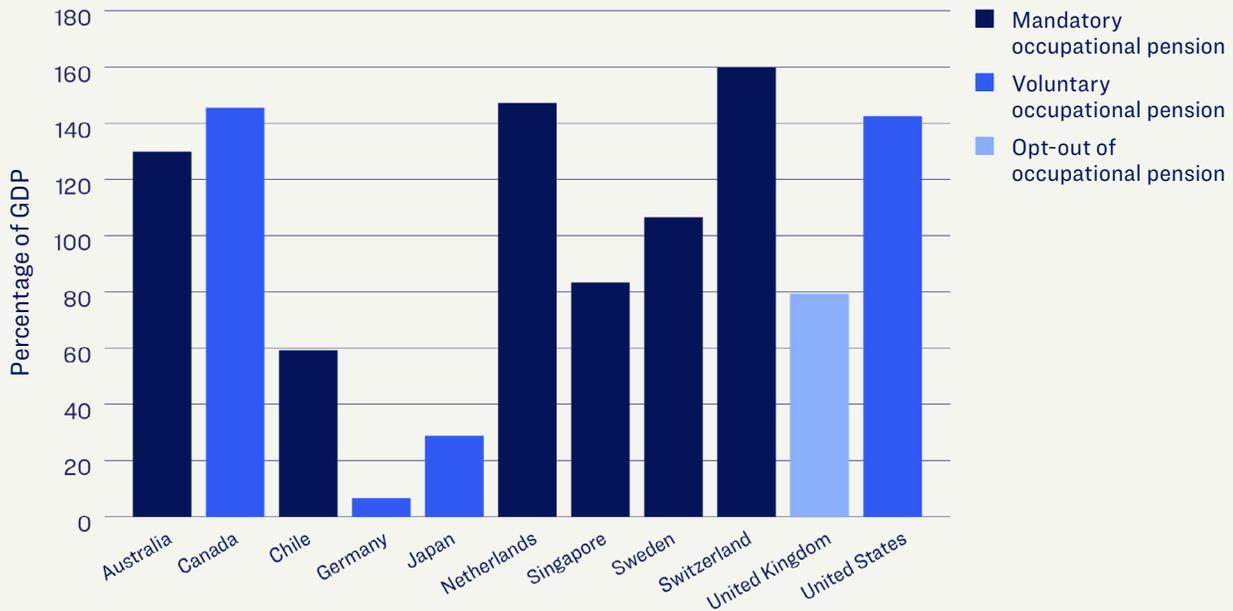
Source: PAAG 2023, table 4.2, except Australia. Author calculations based on maximum age pension/average worker earnings, source data from OECD PAAG Australia country profile 2022.

27 <https://nationalseniors.com.au/news/finance/is-the-age-pension-enough-to-live-on#:~:text=As%20the%20major%20source%20of,extensive%20form%20of%20retirement%20funding>.

28 Retirement Income Review Final Report, [https://treasury.gov.au/sites/default/files/2021-02/p2020-100554-ud00b\\_key\\_obs.pdf](https://treasury.gov.au/sites/default/files/2021-02/p2020-100554-ud00b_key_obs.pdf).

29 Author calculation based on 12% super contribution plus age pension cost of 4.2% of GDP (OECD PAAG table 8.2, income tax intake 11.5% of GDP, <https://australianinstitute.org.au/post/new-research-australias-income-tax-obsession-debunked/>), average income tax rate of 24.9%, (<https://www.abc.net.au/news/2024-04-26/australia-income-tax-rate-changes-oecd-taxing-wages/103769612>).

**CHART 9. TOTAL FUNDED RETIREMENT ASSETS<sup>†</sup>/GDP, 2021**



<sup>†</sup>Includes DB and DC assets.

Source: OECD Pension Markets in Focus 2023, table B3, [https://www.oecd.org/en/publications/2023/12/pension-markets-in-focus-2023\\_c23a01c9.html](https://www.oecd.org/en/publications/2023/12/pension-markets-in-focus-2023_c23a01c9.html).



**Adequacy**

**KEY TAKEAWAYS**

- High replacement rates require high contribution rates, there is no free lunch.
- Achieving an adequate replacement rate without a pay-as-you-go (PAYG) state pension underpinning the workplace system requires a substantially higher contribution rate.



## Financial sustainability: sharing the risks to keep the system afloat

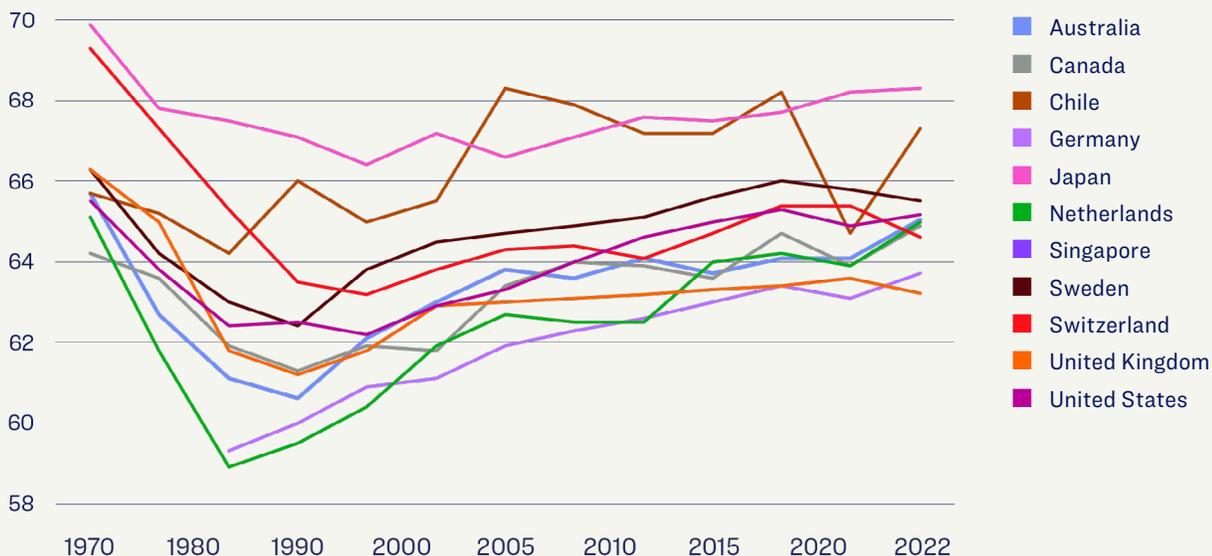
Financial sustainability can become a challenge when the system contains one-sided guarantees. This is particularly the case with traditional DB plans, where the retiree is guaranteed an income, often based on salary, and the provider bears all the risk for honoring this promise. If contributions and returns are not sufficient to fund the cost of the guarantees, the system is unsustainable.

Government pension systems and private sector DB plans in all countries are grappling with financial sustainability problems. By contrast, DC plans do not technically have financial sustainability problems because there is no guarantee to provide a certain level of income. However, they are more prone to inadequacy, because retirees bear these risks individually when they could benefit from sharing diversifiable risks such as longevity risk.

Interestingly, the Individual Choice and Collective Choice countries have taken different approaches to tackling the challenges related to financial sustainability. The countries closer to the Individual Choice end of the spectrum have tended to close private sector DB plans and shift to DC plans. By contrast, those countries closer to the Collective Choice end continue to convert savings into a lifetime income at retirement but have incorporated mechanisms, such as temporary benefit reductions, that require retirees to share some of the risks if the system becomes unsustainable.

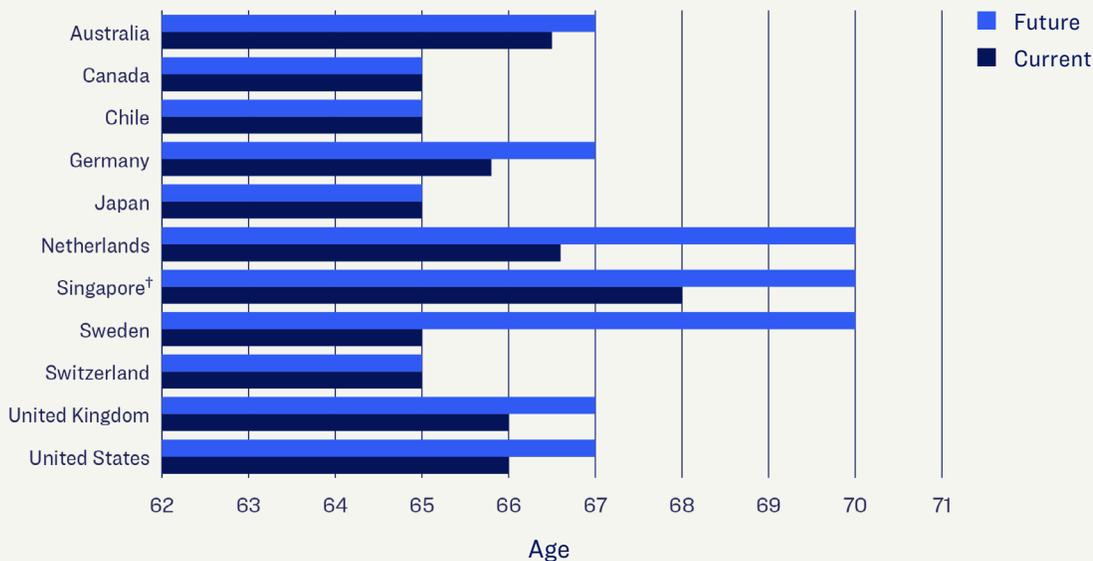
One of the main drivers of the financial sustainability crisis is the fact that increase in life expectancy has not been adequately reflected in retirement ages or benefits formulas. Actual retirement ages have already risen steadily since 2000 (Chart 10), and these will continue to rise in the future as governments raise official retirement ages. It is noteworthy that the Collective Choice countries have been much more aggressive in raising future retirement ages compared with the Individual Choice countries (Chart 11); a higher retirement age is also a form of benefit reduction.

**CHART 10. AVERAGE EFFECTIVE<sup>†</sup> RETIREMENT AGE, MEN**



<sup>†</sup>Effective retirement age = the average age of exit from the labor force for workers aged 40 and over.  
 Source: PAAG 2023, figures 6.13 and 6.14.  
 Singapore is not included because the data is not available.

**CHART 11. CURRENT NORMAL RETIREMENT AGE AND FUTURE RETIREMENT AGE FOR A 22-YEAR-OLD NOW ENTERING THE WORKFORCE**



†Re-employment age. <https://www.mom.gov.sg/employment-practices/re-employment>.

Source: PAAG 2023, figure 3.8.

In addition to raising retirement ages, countries have introduced many other mechanisms to make their guarantees more flexible (Table 1). Savers in these countries often accumulate “notional” account balances based on contributions and asset returns, rather than on measures of final or lifetime salary commonly seen in DB schemes. The accumulated account balance is converted into income using an annuity conversion coefficient based on market rates and longevity expectations at the time of annuitization, rather than an administrative formula that is only updated occasionally. Additionally, Sweden and the Netherlands have introduced rules-based mechanisms to automatically cut benefits on a temporary basis in the case of severe market downturns. Both countries implemented these cuts following the 2008 financial crisis, raising benefits a few years later.

Once retirees have become familiar with the idea that their benefits can vary, making rules-based adjustments to keep the system sustainable should become easier. However, the political process for introducing these changes can be very contentious. For example, trade unions in the Netherlands staged widespread strikes in reaction to the reform plans.<sup>30</sup> The process of negotiating the reforms between the social partners, unions, employers and the government, was a multiyear process, and the benefit cuts and prolonged uncertainty led to a decline in public confidence in the system.<sup>31,32</sup> The disproportionate influence of older voters also complicates efforts to rein in the costs related to an aging population.<sup>33</sup> Nonetheless, as financing challenges rise globally, we can expect to see other countries undergo a similar process.

30 *Financial Times*, “Dutch government tries to avoid cuts to pension payouts,” Nov. 19, 2019.

31 IPE, “Tens of thousands on strike on second day of pensions protests in Netherlands,” May 30, 2019.

32 Pensioen Federatie, “The Dutch pension system: highlights and characteristics” <https://www.pensioenfederatie.nl/website/the-dutch-pension-system-highlights-and-characteristics#:~:text=The%20fact%20that%20pensions%20were,of%20pensions%20and%20pension%20accrual>.

33 *Wall Street Journal*, “The other age issue: old voters are gaining power around world,” Jul. 2, 2024.

TABLE 1. FINANCIAL SUSTAINABILITY MECHANISMS IN GUARANTEED SYSTEMS

	Australia	Canada	Chile	Germany	Japan	Netherlands	Singapore	Sweden	Switzerland	UK	U.S.
Raise retirement age	✓		✓	✓		✓	✓	✓		✓	✓
Life expectancy–based annuity formula		✓	✓			✓	✓	✓			
Notional accounts for accumulation		✓						✓			
Automatic balancing mechanisms					✓	✓		✓		Exploring CDC <sup>†</sup>	

Note: ✓ means has implemented.

<sup>†</sup>Collective Defined Contribution is a retirement plan that pays lifelong income in retirement but the level of income can vary depending on plan solvency.

Apart from the fiscal burden of providing income in retirement, an aging population will also require more spending on health care, placing an additional strain on government finances. The countries in our study spend between 9.1% to 11.3% of GDP annually on health care (with the United States as an outlier at 16.6%), with most of this funded by the government.<sup>34</sup> The last years of life are particularly expensive. According to some estimates, the last three years of life account for 17% to 25% of annual healthcare spending, with half of this coming in the last 12 months.<sup>35</sup> In addition to lifetime income, this underlines the importance of insurance against unexpected healthcare costs in the last years of life, particularly if governments struggling with fiscal financial sustainability rein in public provision of services.



## Financial sustainability

### KEY TAKEAWAYS

- The countries that offer the most guarantees have also introduced the most adjustment mechanisms so participants also share longevity and market risk with the sponsor.
- Automatic balancing mechanisms make it possible to offer guarantees while still having a process for recalibrating if these prove unsustainable.
- Reforms to bring the system onto a sustainable basis are usually very difficult politically, as witnessed recently in France.<sup>36</sup>

34 OECD Health at a Glance 2023, Chart 7.4.

35 French et al., “End-of-Life Medical Spending in the Last 12 Months of Life Is Lower than Previously Reported,” *Health Affairs* 36, No. 7 (2017), 1211–1217.

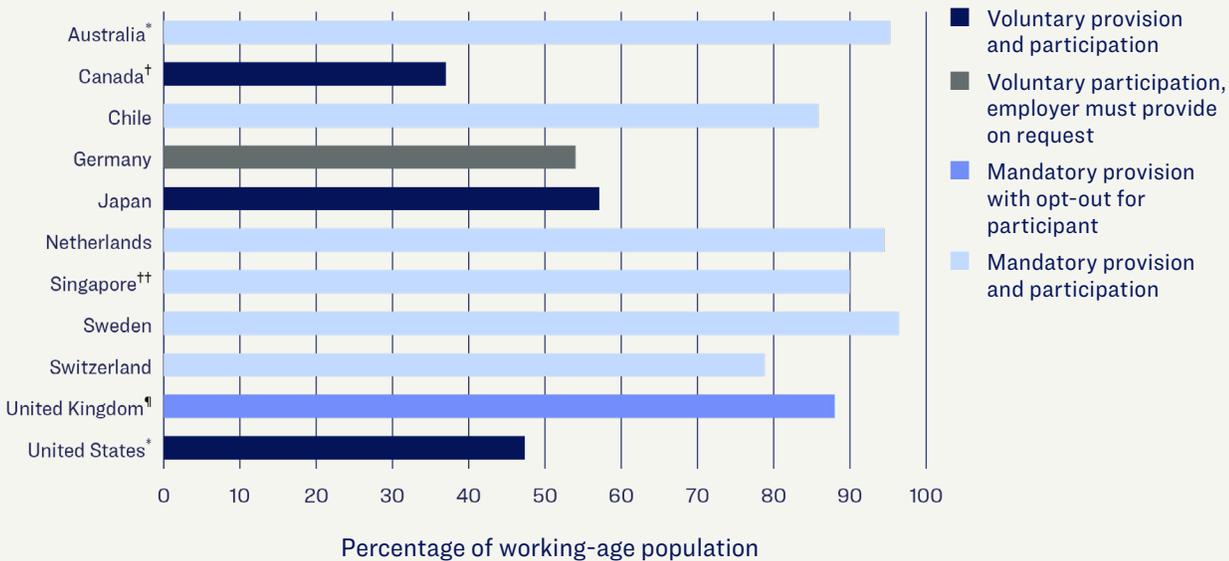
36 Bloomberg, “French Anger over Pension Law Tops Worldwide Protests in 2023,” Jun. 3, 2023, <https://www.bloomberg.com/news/articles/2023-06-03/french-anger-over-pension-law-tops-worldwide-protests-in-2023?embedded-checkout=true>.



## Fairness: the trade-off between freedom of choice and fairness

A fair retirement system provides individuals of all income levels with a secure retirement. The first requirement for this is being able to participate in the retirement system. While government plans are usually mandatory, the provision of workplace plans varies. It's no surprise to find that workplace participation rates are far lower in the countries where workplace plans are voluntary for both employers and employees (Chart 12).<sup>37</sup> The Individual Choice countries are far more reluctant to impose mandates on employers and/or employees than the Collective Choice countries. The United Kingdom has successfully pioneered an interesting model whereby employers are required to offer a plan, but employees have the right to opt out. This has doubled coverage rates among private sector employees without imposing a heavy burden on employers.<sup>38</sup> Some states such as Oregon or California in the United States and the province of Quebec in Canada have adopted this same model.

**CHART 12. EMPLOYEE PARTICIPATION RATE IN WORKPLACE RETIREMENT PLANS**



Source: PAAG 2023, table 9.1.

\*Coverage number divided by labor force participation rate.

†Canada data from OECD PAAG 2022 country profile.

††Author calculations based on CPF active membership of 2.16 million in 2023 (<https://www.cpf.gov.sg/employer/infocenter/reports-and-statistics/cpf-statistics/membership-statistics>) and total labor force of 2.436 million in 2023 (<https://stats.mom.gov.sg/Pages/Labour-Force-Summary-Table.aspx>).

‡United Kingdom data from DWP Workplace pension participation rates and savings trends 2009 to 2021.

37 There are usually some exclusions for domestic employees or the self-employed, which explains why even mandatory systems do not reach 100% coverage.

38 Catherine Reilly, "Smart Strongly Supports Auto IRA/Plan Legislation to Enhance Retirement Security," Sept. 7, 2021, [https://uploads-ssl.webflow.com/5fb4d701fb9bb01e8ff2a817/613771a7e0395772abb664a1\\_smart-usa-response-1.pdf](https://uploads-ssl.webflow.com/5fb4d701fb9bb01e8ff2a817/613771a7e0395772abb664a1_smart-usa-response-1.pdf).

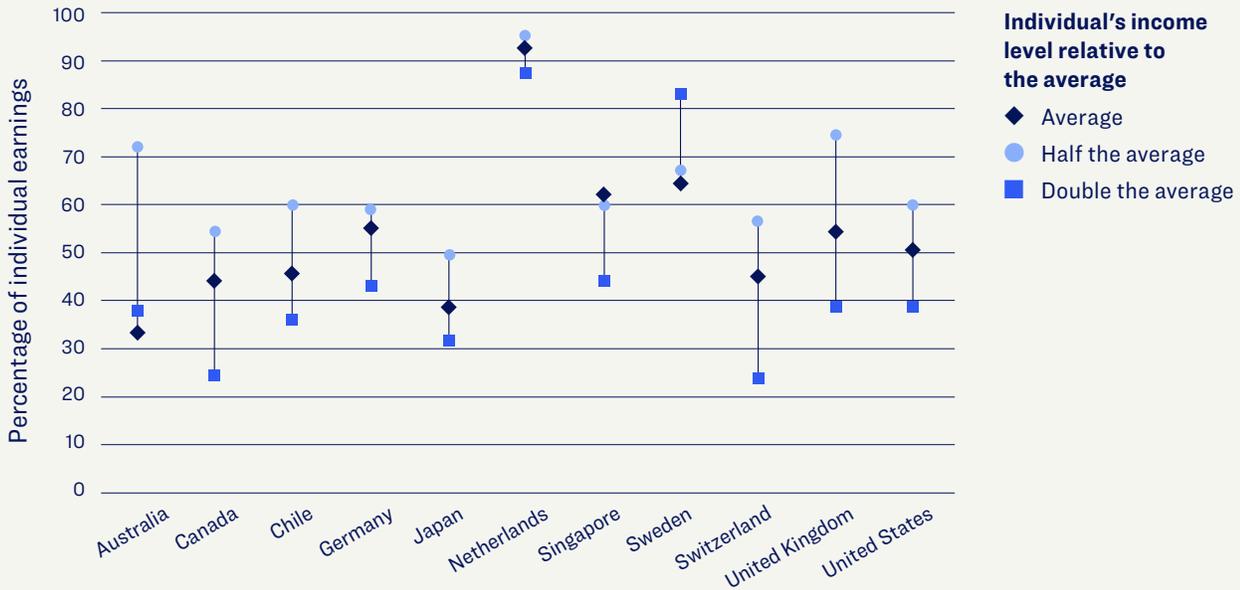
Beyond access to a retirement plan, an additional consideration is whether all employees have access to plans of the same quality. In countries like the United States or Canada, where the plan is provided by the employer on a voluntary basis, employees who work for small employers are significantly less likely to have access to an employer-provided plan. Plans provided by small employers also tend to have higher costs and may have less rigorous governance. By contrast, in systems that rely on government or industry-level plans, such as Sweden, Singapore and the Netherlands, or independent plans for multiple employers, such as the United Kingdom or Australia, all employees tend to have access to very similar plans (Table 2).

**TABLE 2. PROVISION OF WORKPLACE RETIREMENT PLANS BY COUNTRY**

	<b>Employer contribution</b>	<b>Employee contribution</b>	<b>Who chooses provider</b>	<b>Who is typical provider</b>
Australia	<b>Mandatory</b>	<b>Voluntary</b>	Employee	Superannuation fund
Canada	<b>Voluntary</b>	<b>Voluntary</b>	Employer	Employer
Chile	<b>Mandatory</b>	<b>Mandatory</b>	Employee	Independent pension fund (AFP)
Germany	Must offer match if employee contributes	<b>Voluntary</b>	Employer	Insurance company, Pension fund, Employer
Japan	<b>Voluntary</b>	<b>Voluntary</b>	Employer	Insurance company, Pension fund, Employer
Netherlands	<b>Mandatory</b>	<b>Mandatory</b>	Employer	Industry or commercial pension fund
Singapore	<b>Mandatory</b>	<b>Mandatory</b>	Central Provident Fund for all	Central Provident Fund for all
Sweden	<b>Mandatory</b>	<b>Mandatory</b>	Employee through collective agreement	Commercial provider through collective agreement
Switzerland	<b>Mandatory</b>	<b>Mandatory</b>	Employer	Industry pension fund
United Kingdom	<b>Mandatory</b> (unless employee opts out)	<b>Voluntary</b> , but lose employer contribution if opt out	Employer	Master Trust Can also have single employer trusts
United States	<b>Voluntary</b>	<b>Voluntary</b>	Employer	Employer (Possibly more use of pooled employer plans in future)

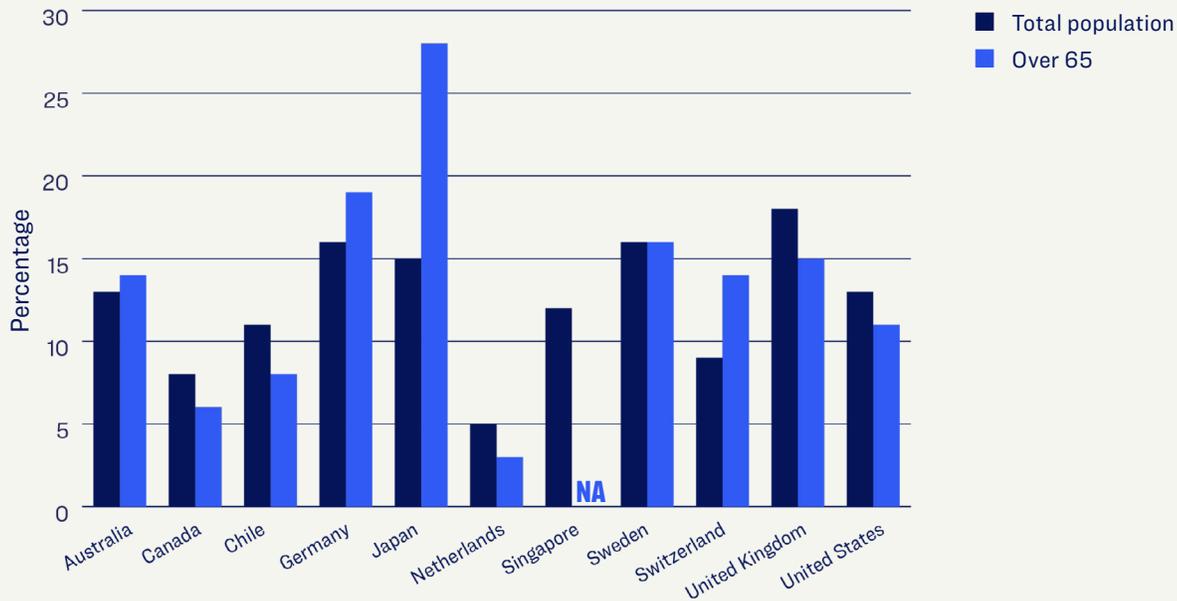
Government retirement systems in all the countries examined here contain redistributive elements to support those at the lower end of the income or wealth scale either through the benefits formula itself, progressive taxation, or a combination of the two. In almost all the countries, the lowest income earners have the highest replacement rate, indicating the government pension also plays a safety net role (Chart 13). Indeed, in almost all the countries, the elderly have a lower poverty rate than the population overall (Chart 14). This indicates that targeted systems to alleviate poverty among the elderly appear to be working.

**CHART 13. NET REPLACEMENT RATE FOR DIFFERENT INCOME LEVELS†**



†All data from PAAG 2023, table 4.5, except Singapore from OECD country profile. The calculations are for an individual entering the labor market at age 22 in 2022 retiring at age 65. Replacement rate data includes workplace plans when these are mandatory. For the U.S. and Canada, this only includes Social Security/CPP or QPP.

**CHART 14. POVERTY RATE (LOCAL DEFINITIONS)**



Sources:

Australia: <https://povertyandinequality.acoss.org.au/poverty-in-australia-2023-who-is-affected/#:~:text=Poverty%20was%20highest%20among%20younger,and%2014%25%20among%20older%20people>

Canada: [https://search.open.canada.ca/qnotes/record/esdc-edsc,Seniors\\_June2023\\_011](https://search.open.canada.ca/qnotes/record/esdc-edsc,Seniors_June2023_011).

Netherlands: <https://www.statista.com/statistics/1358661/netherlands-at-risk-of-poverty-rate-by-age/#:~:text=Those%2065%20years%20or%20older,being%20at%20risk%20of%20poverty>.

Singapore: [https://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=1115&context=lien\\_research](https://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=1115&context=lien_research).

Sweden: <https://www.eapn.eu/wp-content/uploads/2020/04/EAPN-PW2019-Sweden-EN-EAPN-4306.pdf>.

United Kingdom: <https://www.gov.uk/government/statistics/households-below-average-income-for-financial-years-ending-1995-to-2023/households-below-average-income-an-analysis-of-the-uk-income-distribution-fye-1995-to-fye-2023#pensioners-in-low-income-households>.

United States: <https://www.census.gov/library/stories/2023/12/poverty-rate-varies-by-age-groups.html>.



**Fairness**

**KEY TAKEAWAYS**

- There is a trade-off between freedom of choice and fairness. Allowing employers a lot of choice in whether to offer a plan and what type of plan to offer means that some workers will have access to better retirement plans than others.
- Mandatory retirement systems are also part of the social safety net for low income earners.
- The elderly have a lower poverty rate than the general population.



## Plan design: good design to help participants make good choices

The only choice that participants in traditional DB plans or fully mandatory government plans can usually make is when to retire, everything else, from investments to income options, is typically determined by the plan provider. However, as the Collective Choice countries introduce mechanisms to shift some risks onto participants to keep the systems sustainable, they are also allowing participants to make more choices. For example, following the Dutch pension reforms, participants can choose their own investment risk level. The experience of the Individual Choice countries of deploying these choice elements can offer many useful lessons.

A large and growing body of research from all countries shows that most participants tend to be passive and will stay in the default option even when they are offered the opportunity to make their own choices. The choice of the default solution for participation, contribution and retirement income distributions is extremely important, because the psychological endorsement effect of the default determines what most people will choose to do. Extensive experience from the IC countries shows that participants who are automatically enrolled into a plan, even if they can opt out, are far more likely to save for retirement than if they must proactively choose to save. Most participants will save at the default contribution rate and invest in the default investment solution, typically either a target date, life cycle or balanced fund.<sup>39</sup> It is also important to offer a well-designed investment menu for those who prefer not to use the default.

While the IC countries effectively use defaults to guide participants during the saving period, the CC countries are ahead when it comes to offering simple pathways for income after retirement. For example, when participants in Singapore, the Netherlands, Chile, Switzerland or Sweden reach retirement age, they can choose from a range of guaranteed income options offered by their plan. By contrast, according to one large U.S. recordkeeper,<sup>40</sup> only 12% of all DC plans on its platform in 2020 offered an annuity distribution option for retirees. Likewise, the Australian Treasury recently issued a consultation seeking input on how to expand the role of the Superannuation funds in providing income after retirement.<sup>41</sup>

Increasing the uptake of guaranteed income in the Individual Choice countries will require developing frictionless or default pathways that include an allocation to lifetime income. For most U.S. retirees, the de facto default is the required minimum distribution (RMD), currently starting at age 73.<sup>42</sup> Those who purchase an annuity from their plan menu tend to annuitize only part of their assets, indicating that products offering a combination of guaranteed income and liquid assets are more likely to be successful than income alone. Interest in guaranteed income has steadily increased, and some providers have launched new products, such as target date funds, that allow the participant to convert part of the balance into an annuity at retirement.<sup>43,44</sup> Some of the Australian Superannuation

39 Brent J. Davis and David P. Richardson, "Trends in retirement plan contributions and allocations by participants: 2012–2018", TIAA Institute *Research Dialogue* 168, Sept. 2020.

40 Vanguard, "How America Saves 2021."

41 Australian Government, The Treasury "Retirement Phase of Superannuation," Discussion Paper, Dec. 2023.

42 Jeffrey Brown, James Poterba and David P. Richardson, "Trends in retirement and retirement income choices by TIAA participants: 2008–2018, TIAA Institute *Research Dialogue* 182, Sept. 2021.

43 <https://www.tiaa.org/public/retire/financial-products/target-date-funds>.

44 <https://www.blackrock.com/institutions/en-us/strategies/multi-asset/target-date/lifepath-paycheck>.

funds have also launched new guaranteed income options.<sup>45</sup> Adoption of these novel products is still low, as they have only been available for a short time and participants and plan sponsors may not yet be familiar with them.<sup>46</sup>

**TABLE 3. DEFAULT INVESTMENT AND INCOME OPTIONS IN DC PLANS IN DIFFERENT COUNTRIES**

	Default accumulation	Default decumulation
Australia	Multi-asset class fund Static or dynamic allocation with age	Minimum drawdown rates apply Income product must be purchased separately
Canada	Target date fund Target risk fund	Minimum withdrawal schedule Income product must be purchased separately
Chile	Risk-based multi-asset portfolio	Programmed withdrawal, annuity or combination of the two
Germany	Insurance contract or pension fund	Varies by plan
Japan	Employee designates allocation	Lump sum
Netherlands	Risk-based lifecycle fund	Choose from variable or fixed annuity provided by plan (may be possible to take 10% out as a lump sum)
Singapore	Central Provident Fund	Choose from variable or fixed annuity provided by plan
Sweden	Multi-asset class fund with a risk profile that evolves with age (AP7 Såfa)	Choose from variable or fixed annuity provided by plan Periodic lump sum options also available
Switzerland	Industry fund	Income annuity
United Kingdom	Lifecycle fund	Drawdown, 25% tax-free cash Income product must be purchased separately
United States	Target date fund	Required minimum distributions Income product must be purchased separately New TDFs with embedded annuity option increasingly available

45 <https://www.australianretirementtrust.com.au/retirement/in-retirement/lifetime-pension>.

46 <https://www.planadviser.com/fidelity-goes-national-401k-income-annuity-offering/>.

It is important to strike the right balance between freedom of choice and protection against poor choices. For example, U.S. 401(k) plans have a well-established fiduciary system, where the plan sponsor, usually the employer, is responsible for selecting and approving the investment products offered. By contrast, Singapore and Sweden initially adopted an open marketplace approach where savers could choose funds from an open architecture platform with very little oversight of the offered funds. This led to expensive or even fraudulent investments being offered, as savers were not able to adequately vet the providers themselves.<sup>47,48</sup> Likewise, U.S. 403(b) plans which allowed “any willing provider” to offer products had significantly higher fees than those where plan sponsors approved providers through a competitive bidding process.<sup>49</sup> As the Collective Choice countries introduce more optionality into their retirement plans, it is important to make sure the offered choices are expected to lead to good outcomes even if participants do not engage actively.

With the introduction of choice, plan design should also incorporate features that provide good outcomes for situations where the individual does not want to use the default option. These include a substantial role for education, guidance and advice to help individuals make sound decisions. The expansion of choice options also places more demands on the infrastructure for account portability when participants change employers or plan providers, as different plans will offer different investment products. One approach is to make it easy for participants to consolidate their savings with one provider, as Australia has done with the Taxation Office’s super consolidation tool.<sup>50</sup> Another option is to help participants keep track of their multiple accounts as the United Kingdom is planning with its Pensions Dashboards<sup>51</sup> project or the United States with the Retirement Savings Lost and Found.<sup>52</sup>



## Plan design

### KEY TAKEAWAYS

- Defaults are critical because they determine the path that most people will take. Even if people must actively select something, the options they can choose from will have an important impact on the result.
- The Individual Choice countries need better pathways for retirement income within the plan. Providers have launched new solutions offering a combination of guaranteed income and liquid assets. Adoption rates are currently low, as the market is still in the early stages.
- With the expansion of choice, there is also more need for education, advice and infrastructure for account portability. Good governance is also critical to ensure the available choices are sound.

47 Kim Wiesener, “The battle against fraudulent fund managers may be won in Tumba,” *AMWatch*, Jun. 14, 2023, <https://amwatch.com/article16014031.ece>.

48 Joelle H. Fong, Olivia Mitchell, Benedict S. K. Koh and Toto Tanuwidjaja, “Investment Patterns in Singapore’s Central Provident Fund System,” *Journal of Pension Economics and Finance* 7, Mar. 2008, pp. 37–65.

49 Robert Clark and David P. Richardson, “Who’s watching the door? How improving 403(b) administrative oversight can improve educators’ retirement outcomes,” TIAA-CREF Institute, 2010.

50 <https://www.ato.gov.au/individuals-and-families/super-for-individuals-and-families/super/growing-and-keeping-track-of-your-super/keeping-track-of-your-super/transferring-or-consolidating-your-super>.

51 <https://www.pensionsdashboardsprogramme.org.uk/>.

52 <https://www.dol.gov/newsroom/releases/ebsa/ebsa20240415>.

## Conclusion

### We're already in a hybrid world

In the debate on the future of retirement, it is easy to succumb to unwarranted nostalgia for the “good old days” of DB when everybody received a guaranteed lifetime income based on their final salary. The reality is that traditional DB plans were not quite as good as fond memory would have. Apart from the fact that they were financially unsustainable, in many cases they were also only available to part of the population, inflexible and poorly suited to a mobile workforce with increasing divergence in working and retirement patterns. We can and should aim for better.

Legislators and retirement plan providers globally have already embarked on a new era of hybrid retirement plans that combine the best features of both DB and DC plans. These hybrid systems require a rebalancing of responsibilities and risk burdens between employers, workers and the government. Countries are approaching this challenge in different ways, depending on their existing model. The Collective Choice countries, from a starting point close to DB, continue to convert assets into a guaranteed income stream at retirement, but they have shifted increasing risk to retirees through mechanisms such as market-based annuitization formulas or adjustment mechanisms to cut benefits if funding limits are breached. The IC countries, on the other hand, coming from a starting point of DC, are trying to introduce more longevity risk sharing and guaranteed income. Legislators have introduced initiatives promoting annuitization, such as the retirement income covenant in Australia, or the SECURE 1.0 and 2.0 Acts in the United States, and product providers have developed innovative solutions embedding automated ways to convert savings into income using target date funds.

Because of their different starting points, the countries also face different challenges. The Individual Choice countries come from a world of individual DC without risk sharing between participants and/or providers. In most cases, individual choice extends even to the decision on whether to save for retirement. For these countries, a hybrid system would require expanding equitable access to retirement plans and greater consideration of “back-solving” retirement outcomes by setting contribution rates at a level that provides a sufficient replacement rate and expanding access to lifetime income options in retirement. Improving account portability to make it simpler for participants to consolidate their savings would make these income options easier to implement and could boost participant adoption of these products.

Another challenge as DC plans seek to embrace hybrid solutions is the need to expand the investment universe to include illiquid asset classes, such as private fairness, direct real estate or infrastructure, that many DB plans invest in. Australia provides a successful model for incorporating alternative investments into the Superannuation funds. The United Kingdom is currently also exploring how to expand the availability of illiquid investments in DC plans.<sup>53</sup>



“All countries included in this report have strengths and weaknesses in their retirement systems. While no retirement system is ideal, many countries have developed interesting solutions to the challenges posed by increasing lifespans and changing working patterns. 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

53 <https://www.gov.uk/government/consultations/broadening-the-investment-opportunities-of-defined-contribution-pension-schemes/consultation-broadening-the-investment-opportunities-of-defined-contribution-pension-schemes>.

The Collective Choice countries, on the other hand, have moved to reform their DB plans by introducing DC-like market-driven mechanisms for accumulation and income payments. These reforms have rebalanced risk burdens between employers and workers and improved retirement plan financial sustainability. These hybrid solutions, combining some of the flexible and sustainable elements of DC with the lifetime income and longevity risk sharing of DB, are moves in the right direction for providing adequate and sustainable retirement plans that provide an equitable model for risk-sharing between providers and retirees.

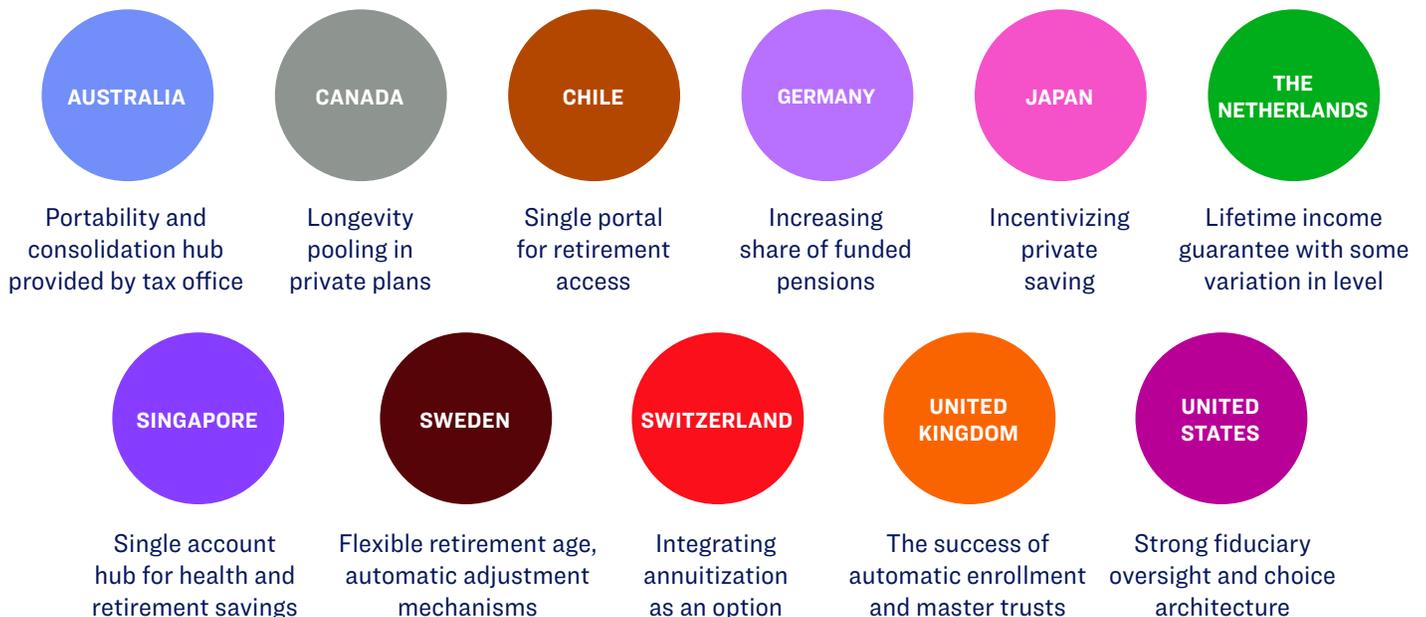
As part of these reforms, the Collective Choice countries are allowing participants more flexibility and choice. In turn, however, these changes introduce a new set of challenges. The experience of numerous countries shows that, as savers, most people accept the default and relatively few want to choose their own investments. When allowing greater choice, it is critical to have stringent oversight and governance to protect savers against potential bad actors, combined with clear and regular communications so savers and retirees understand the choices available to them. Providing choice may also place heavier demands on the infrastructure for account portability and advice delivery.

While no system is perfect, the countries in our study have developed many innovative solutions to the challenge of financing retirement. To provide a sustainable, secure retirement in an environment with longer lifespans and divergent working patterns, we need a hybrid system that combines the best elements of both DB and DC plans:



- 1** Universal participation in a high-quality retirement plan that can also provide income in retirement
- 2** A contribution rate that is high enough to finance a secure retirement
- 3** Risk sharing between participants, employers and governments to keep the system sustainable and equitable
- 4** Flexibility and portability to align with evolving working patterns
- 5** Strong fiduciary oversight, plan design and advice to help individuals make good choices

**MOST IMPORTANT THINGS COUNTRIES CAN LEARN FROM EACH OTHER**



## Conclusions for U.S. policymakers

The global experience examined in this report demonstrates that the challenge of converting retirement savings into lifetime income is not unique to the United States. However, the experiences of countries like Chile and Switzerland reveal that significant progress can be made in increasing annuitization rates without resorting to mandates. For U.S. policymakers, the path forward lies in reducing friction, improving integration, and empowering informed choice rather than eliminating choice altogether.

### The integration imperative: making income decisions part of the journey

The most compelling lesson from international experience is that integration is key to success. When annuitization is completely voluntary and requires individuals to seek out products and providers independently, annuitization rates remain consistently low across all countries studied. The Swiss and Chilean models demonstrate that incorporating the annuity decision into the basic process for accessing retirement savings can significantly increase uptake without compromising participant choice.

U.S. policymakers should prioritize reforms that make guaranteed lifetime income options an integrated part of the retirement planning process. This means moving beyond the current fragmented approach where participants must navigate complex retail markets independently, toward a system where income options are seamlessly presented alongside other distribution choices within the retirement plan framework.

### Removing regulatory barriers to innovation

While recent legislation through the SECURE Act and SECURE 2.0 has made important strides, significant barriers remain that prevent DC plans from offering comprehensive income solutions. Policymakers should focus on several key areas:

#### Expanding default investment options

Current qualified default investment alternatives should be expanded to include annuities with delayed liquidity features, allowing target date funds to incorporate guaranteed income components in their glide paths. This would address the fundamental mismatch between workers' desire for guaranteed income (with surveys showing participants would allocate an average of 33.5% of retirement savings to guaranteed lifetime income) and the current bond-heavy approach of most target date funds.<sup>54</sup>



“In our vision for the future, all U.S. workers are automatically enrolled into a robust, cost-efficient retirement plan. Workers who don’t choose their own investments would be defaulted into a well-designed investment solution that can easily be converted into a guaranteed income stream or other payout option at retirement.”

Bret Hester, EVP, General Counsel and Head of Government Relations, TIAA

## Strengthening fiduciary safe harbors

Plan sponsors need additional protection when offering guaranteed income solutions, both as investment options and as default distribution choices. Providing comprehensive safe harbors for fiduciaries who offer annuities as default distribution options, with appropriate participant notification and opt-out rights, would remove a significant barrier to plan sponsor adoption.

## Enabling flexible product design

Current regulations should be modified to permit indexed and variable annuities within Qualified Longevity Annuity Contracts, and to allow collective investment trusts in 403(b) plans on par with 401(k) plans. These changes would provide the flexibility needed to meet diverse participant needs while maintaining cost efficiency.

## The education foundation: building longevity literacy

The international evidence shows that when annuitization is made easy and integrated, participants make informed decisions based on their personal circumstances. However, this requires a foundation of financial literacy, particularly regarding longevity and retirement risks. Research demonstrates that providing workers with objective information about their life expectancy increases regret about not purchasing lifetime income by 42%.<sup>55</sup>

U.S. policymakers should mandate retirement income education as a complement to existing retirement savings education requirements. This education should cover life expectancy at retirement, the various financial risks faced in retirement, Social Security claiming strategies, and the role of guaranteed income products in managing these risks. Such education is particularly critical given that only 12% of adults demonstrate strong longevity literacy.<sup>56</sup>

## Addressing the middle-income sweet spot

The Chilean and Swiss experiences reveal that middle-income earners are most likely to benefit from and choose annuitization. This “Goldilocks effect” reflects the reality that very low-income individuals may not have sufficient assets to generate meaningful income, while high-net-worth individuals prioritize flexibility and bequest motives. U.S. policy should recognize this pattern and avoid one-size-fits-all approaches.

Rather than mandating annuitization for all participants, policymakers should focus on ensuring that those most likely to benefit have easy access to well-designed products. This includes expanding in-service rollover options for workers aged 50 and older, allowing them to begin planning for guaranteed income even if their current plan lacks these options.

## Incentivizing without mandating

The global evidence suggests that the most successful approaches to increasing annuitization without mandates combine ease of access with appropriate incentives. U.S. policymakers should consider tax incentives for guaranteed lifetime income products, such as preferential tax treatment for annuity income or exclusions for a portion of guaranteed payments.

The success of integrated approaches in other countries often relies on national frameworks that create consistency and awareness. While the U.S. retirement system’s complexity makes a singular national approach challenging, policymakers can support infrastructure development through several mechanisms:

**Require a menu of qualified payout options:** Requiring DC plans to offer a menu of qualified payout options, including guaranteed lifetime income solutions, systematic withdrawal options, and managed payout alternatives, that participants could view and compare simultaneously as part of the process for accessing their savings would ensure participants have frictionless access to appropriate tools and information without forcing specific choices.

**Promoting pooled plans:** Continued support for Pooled Employer Plans and similar arrangements can help smaller employers offer sophisticated income solutions that would otherwise be available only to large plans.

**Expanding coverage:** Initiatives like the Automatic IRA Act, which would require employers to offer retirement plans while providing guaranteed income options for participants with minimum balances, could significantly expand access to both savings and income solutions.

**Supporting innovation:** Regulatory flexibility for emerging solutions, such as Collective Defined Contribution approaches and variable annuity structures, will enable the market to develop products that combine the lifetime income guarantee of traditional pensions with the flexibility and financial sustainability of modern DC plans.

**Making it easier to consolidate assets:** Income solutions are more likely to be relevant to retirees if their savings are consolidated into one account rather than distributed between various employer plans as a legacy of job changes. Expanding the use of auto-portability for 401(k) account consolidation would make it easier for retirees to make informed decisions on how much of their assets to annuitize.

55 Abigail Hurwitz and Olivia S. Mitchell, “Financial Regret at Older Ages and Longevity Awareness,” Sept. 2023.

56 TIAA Institute-GFLEC Personal Finance Index, Apr. 1, 2022.

## The hybrid future

The international trend toward hybrid retirement systems that combine features of both DB and DC plans points toward the future direction for the U.S. system. Rather than viewing guaranteed income as separate from or competing with DC plans, policymakers should embrace approaches that integrate these elements seamlessly.

This hybrid approach recognizes that the future of retirement security lies not in choosing between accumulation and income, but in creating systems that support both effectively. The goal should be retirement plans that help workers not just save for retirement, but live securely through retirement.

## The urgency of action

The need for comprehensive reform is particularly urgent as over 30 million Baby Boomers reach retirement age, while Social Security faces potential benefit cuts as early as 2033. The projected reduction in Social Security benefits will increase the percentage of retirees at risk for declining living standards from 23% today to 38% in 2035, making workplace retirement plans increasingly critical for retirement security.

The guarantee gap in American retirement plans represents one of the most significant policy challenges of our time. However, the international experience provides a clear roadmap: focus on integration rather than mandates, remove regulatory barriers to innovation, educate participants about longevity risks, and create incentives for appropriate choices. By following this path, U.S. policymakers can build a retirement system that delivers on its fundamental promise: not just helping Americans save for retirement, but ensuring they can live securely throughout their retirement years.

The lesson from successful international approaches is clear: when guaranteed income options are made easily accessible and appropriately integrated into the retirement planning process, participants will make informed decisions that serve their long-term interests. The task for U.S. policymakers is to create the regulatory and structural framework that makes such integration possible, while preserving the choice and flexibility that Americans value in their retirement planning.





## COUNTRY PROFILE

# Australia

## Background

For more than 30 years, the Australian Superannuation system has required employers to make contributions on behalf of their employees into a Superannuation (“super”) fund. These are typically large independent retirement plans used by many different employers, although some companies have their own corporate superannuation fund and individuals can also opt for a self-managed super fund. Self-employed and domestic workers are exempt from the mandate. The assets, which employees cannot access before the age of 60, are invested in individual accounts with no risk sharing between participants either before or after retirement. The super funds typically offer a selection of multi-asset class investment solutions with different risk profiles from which participants can choose. Some super funds also allow participants to directly select individual securities or asset classes.<sup>57</sup>

In addition to the private, fully funded superannuation system, Australia also provides the general revenue-funded Age Pension for individuals below certain income and asset thresholds. Eligibility for this benefit is reassessed annually, so depending on their circumstances, individuals will start receiving it at different ages. The complicated asset and income tests for the Age Pension may lead to perverse incentives to spend down assets.<sup>58</sup> Australia also offers other benefits to lower-income seniors, such as healthcare concession cards and rental assistance.

## Raising contributions and promoting lifetime income to improve adequacy

Through the Superannuation mandate, Australia has accumulated an impressive level of pre-funded retirement assets, ranking it seventh in the OECD.<sup>59</sup> However, the means-tested Australian state pension is considerably less generous than in many other countries. While this helps keep the burden on public finances sustainable, it also means that the private assets cover a larger share of spending than in other countries. Another implication is that Australians have less guaranteed income in retirement than in many other countries. To address concerns regarding adequacy, the mandatory contribution rate has risen to 12% as of July 2025.

### KEY TAKEAWAYS

- Policymakers can play a helpful role in improving the functioning of the private retirement system.
- Allowing members to choose their own provider helps with fairness and portability, but may increase costs.
- Despite efforts from policymakers to promote lifetime income products on a voluntary basis, uptake remains very low.

57 <https://moneysmart.gov.au/grow-your-super/super-investment-options>.

58 <https://www.firstlinks.com.au/distortions-retirement-system>.

59 PAAG 2023, table 9.2.

## COUNTRY PROFILE: AUSTRALIA

As in most countries where retirement savings do not automatically convert into a lifetime income stream, Australians are reluctant to voluntarily purchase annuities, despite the fact that retirees are typically worried about outliving their savings and subsequently tend to underspend in retirement. Since July 2022, under the retirement income covenant<sup>60</sup> super fund trustees are required to develop a retirement income strategy. In its recent discussion paper on the retirement phase of superannuation,<sup>61</sup> the Australian treasury found that seven out of 15 surveyed trustees offered longevity protection products and six were in the process of developing them. Although these products can offer longevity protection, some flexibility and advantages for the Age Pension,<sup>62</sup> so far the uptake has been low.

## Member choice and government support for transparent information

An interesting feature of the Australian system is that the member can choose which super fund the employer should direct the superannuation contributions to (the employer also has a default fund in case the member does not express a preference). Although some funds are restricted by industry, this means all members have access to high-quality, professionally managed funds, rather than being restricted to the fund their employer has selected. This increases fairness compared with some systems where lower-income employees tend to only have access to less sophisticated or higher-cost plans. A potential downside is the lack of an institutional counterpart to negotiate costs, and the costs that the funds incur to market to individuals.<sup>63</sup>

### Members choose where their funds are directed, not employers



#### POSITIVE

Universal access to high-quality, professionally managed funds

#### NEGATIVE

Fund fees may be higher than in an institutional market

To support members in their choices, the Australian government has embraced several initiatives to improve transparency and make it easier for members to understand their options and manage their retirement savings. The Australian Tax Office offers a consolidation hub that members can use to track down and consolidate their super accounts.<sup>64</sup> As a result, the share of savers in Australia with only one retirement account has risen steadily, from 67% in 2019 to 75% in 2022.<sup>65</sup> Likewise, the recent Treasury discussion paper on how to promote the uptake of lifetime income products considers whether developing a standardized disclosure format or a comparison tool for retirement income products (similar to the YourSuper<sup>66</sup> tool the Tax office provides for comparing superannuation funds) would make it easier for members to understand and compare products and drive adoption.

Another option that the Treasury has considered is a standardized retirement income product design that all funds would have to provide as a “first offer” to members. It also floats the possibility of facilitating longevity pooling by allowing smaller super funds to pool mortality risk with each other, or by issuing government backed longevity bonds to make it easier for insurers to manage the risk.

60 PAAG 2023, table 9.2.

61 Retirement Phase of Superannuation, Australian Treasury discussion paper December 2023.

62 <https://qsuper.qld.gov.au/news-hub/articles/2021/01/27/01/28/new-retirement-product-offers-income-for-life>.

63 <https://www.afr.com/policy/tax-and-super/big-super-spends-lots-of-your-money-on-promotion-here-s-where-it-goes-20231226-p5etp0>.

64 <https://www.ato.gov.au/individuals-and-families/super-for-individuals-and-families/super/growing-and-keeping-track-of-your-super/keeping-track-of-your-super>.

65 Association of Superannuation Funds of Australia (AFSA), Developments in the Number and Cost of Multiple Superannuation Accounts, 2021.

66 <https://www.ato.gov.au/calculators-and-tools/super-yoursuper-comparison-tool#ato-AccessstheYourSupercomparisonool>.

## COUNTRY PROFILE: AUSTRALIA

## Key metrics: Australia

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Contribution rate</b> Public pension benefits paid from general revenue Mandatory contribution rate for workplace plan: Employee: 0%, Employer: 11.5% (rising to 12% by Jul. 1, 2025) <sup>67</sup>	<b>Government spending on retirement benefits</b> 2020-23: 2.3% of GDP (12.8% of total government spending) 2040: 2.2% <sup>68</sup>	<b>Retirement coverage</b> 78.5% coverage through Superannuation mandate <sup>69</sup> (% of total working age population) Self-employed and domestic employees exempt from mandate <sup>70</sup>	<b>Asset allocation of funded retirement system</b> Equities: 44.5% Bonds: 13.2% Cash: 11.2% Other: 30.2% Abroad: 47.9% <sup>71</sup> (May not add up to 100% due to overlap and/or missing categories.)
<b>Net replacement rate from workplace plan</b> 33% for average income earner (Superannuation) <sup>72</sup>	<b>Retirement age and duration</b> 65.1 (men), 64.4 (women) Expected years in retirement: 20.5 (men), 23.5 (women) <sup>73</sup>	<b>Net income replacement rate for low earner</b> 72.2% net replacement rate for individual earning half of average income level <sup>74</sup>	<b>Choice of investment allocation</b> Superannuation funds typically offer their own prepackaged investment solutions

67 <https://www.superguide.com.au/how-super-works/superannuation-guarantee-sg-contributions-rate#:~:text=changes%20over%20time.-,What%20is%20the%20current%20Superannuation%20Guarantee%20rate%3F,it%20is%20scheduled%20to%20stay.>

68 PAAG 2023, table 8.3.

69 PAAG 2023, table 9.1.

70 PAAG 2023, table 9.1.

71 OECD Pension Markets in Focus 2023, tables B8, B9, B10, B11, B12.

72 PAAG 2023 Australia country profile.

73 PAAG 2023, figure 6.1.

74 PAAG 2023, figure 4.5.

## COUNTRY PROFILE: AUSTRALIA

## Key metrics: Australia (continued)

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Gross replacement rate from government plan</b> 28% (Age Pension) <sup>75</sup>	<b>Old age to working population</b> 2022: 28, 2052: 34.7 <sup>76</sup>	<b>How access to workplace plan is determined</b> Employees can direct their employer's payments to the super of their choice or use their employer's default super.	<b>Access to retirement savings</b> Savers can usually only access their super after age 65/preservation age. After age 65, required minimum annual withdrawal amounts that rise over time.
<b>Funded retirement assets/GDP</b> 131.4%/\$2,089,041 mil. private 7.6%/\$132,873 mil. public <sup>77</sup>	<b>Indexation of pensions formula</b> Age pension indexed to higher of general or pensioner CPI, minimum level relative to average wage. No financial sustainability adjustment mechanism.	<b>Uptake of guaranteed income beyond state pension</b> 3.5% of pension assets held in annuities <sup>78</sup>	<b>Availability of guaranteed income in workplace plans</b> Superannuation funds can be industry funds, commercial funds (banks) or self-directed. Many superannuation funds are developing their own retirement income products.

75 Author calculations based on maximum age pension/average worker earnings, source data from OECD Australia country profile 2023.

76 PAAG 2023, table 6.2.

77 PAAG 2023, table 9.2.

78 Retirement Phase of Superannuation, Treasury Consultation Paper, Dec. 2023.



## COUNTRY PROFILE

# Canada

## Background

On a high level, the structure of the Canadian retirement saving system is very similar to that of the United States. Employers and employees make mandatory contributions to the Canada or Quebec pension plans. These are the Canadian equivalent of Social Security, i.e., PAYG retirement plans that provide lifetime, inflation-indexed benefits. Beyond this, there is no federal requirement for employers to provide a workplace plan. The exception is the province of Quebec, which requires employers with more than 10 employees to make a voluntary retirement plan (VRSP) available.<sup>79</sup> There is no federal requirement for employees to participate in a retirement plan when it is offered; however, employers that offer a plan can mandate participation.<sup>80</sup>

There is a sharp divide between the public and private sectors. Most public sector employees (88%) have a retirement plan, and most of these are in DB plans. The participation rate among private sector employees is clearly lower. According to the official statistics, only 23% of private sector workers participate in a DC plan and this has been on a downward trend recent years.<sup>81</sup> However, these numbers understate the true participation rate, as many employers, particular the smallest ones, offer a registered retirement savings plan (RRSP) rather than a DC plan.<sup>82</sup> RRSPs are technically voluntary individual plans, but unlike IRAs in the United States, employers can make matching contributions to these. Nonetheless, the voluntary nature of the system means that the overall participation rate is similar to the United States and clearly lower than in the countries that require retirement plan provision and/or participation.

One noteworthy difference between the United States and Canada is that the latter has universal health care through the government-run national health insurance program (NHI). While Americans typically cite paying for healthcare costs as one of the biggest concerns in retirement,<sup>83</sup> Canadians are more worried about their financial health in general.<sup>84</sup> The difference in healthcare costs may also be one of the factors explaining why the poverty rate among the elderly in Canada (6%) is lower than in the United States (11%).<sup>85</sup>

### KEY TAKEAWAYS

- Hybrid plans offer a way to bring DB plans onto a sustainable basis while still retaining the advantages of longevity pooling and lifetime income.
- A voluntary system leads to a lower participation rate.

79 [https://www.rrq.gouv.qc.ca/en/planification/5-etapes/sources\\_revenu\\_retraite/Pages/regimes\\_privs\\_retraite.aspx](https://www.rrq.gouv.qc.ca/en/planification/5-etapes/sources_revenu_retraite/Pages/regimes_privs_retraite.aspx).

80 Sun Life, "Designed for Savings 2023."

81 <https://www150.statcan.gc.ca/n1/daily-quotidien/230623/t002b-eng.htm>.

82 Sun Life, "Designed for Savings 2023."

83 National Institute on Retirement Security, "Retirement Insecurity 2024: Americans' Views on Retirement," Feb. 2024.

84 Healthcare of Ontario Pension Plan, "Canadian Retirement Survey 2023."

85 For source data, see chart 9.

## COUNTRY PROFILE: CANADA

## Target benefit plans already provide lifetime income with adjustment mechanisms

Canadian target benefit plans (TBPs) are conceptually similar to the Dutch Collective Defined Contribution plans.<sup>86</sup> In a target benefit plan, employers and employees are only responsible for the initial contribution rate to the plan. At retirement, the accrued balance is converted into an income stream using a predetermined formula. Unlike DB plans, this target benefit would not be linked to the employee's salary, only to the accrued contributions and the annuitization formula at the time of retirement. Furthermore, TBPs allow pension benefits and contribution rates to be dependent on the plan's financial situation. A key advantage of the target benefit structure is that participants pool their longevity risk. This should lead to higher income payments and remove the risk of outliving their assets compared with DC plans. Target benefit plans have been available within multiple employer plans for over a decade, and some provinces have also passed legislation allowing single employer target benefit plans.<sup>87,88</sup> In many cases, these have been used to bring DB plans onto a more sustainable basis.<sup>89</sup>

## Voluntary uptake of lifetime income products remains low

At retirement, DC plan participants can choose freely whether to annuitize their assets, and as in most countries where annuitization is voluntary, Canadians are reluctant

to do so. Currently only about 1% of assets in decumulation are used to purchase annuities.<sup>90</sup> There have been several initiatives in Canada to introduce hybrid models that would be funded like DC plans but provide lifetime income like a DB plan.



### Dynamic pension pools: a new initiative

Retirees could convert savings into income streams even if an employer does not have DB or target benefit plan.

Dynamic pension pools, also known as variable premium lifetime annuities (VPLAs), are a new initiative that could enable retirees to convert all or part of their savings into an income stream even if their employer has not offered a DB or target benefit plan. As with a traditional annuity, participants would pool their longevity risk and limit liquidity for the assets that they commit to the pool. Unlike an income annuity, the money would stay invested and there would be no third-party insurer to provide guarantees. The income would be guaranteed to last for a lifetime, but the level would fluctuate depending on market performance.<sup>91</sup> Under current legislation, these are still only available to participants in specific DC or pooled registered pension plans, even though the University of British Columbia has offered a VPLA to its members since the 1960s.<sup>92</sup>

86 <https://www.canada.ca/en/department-finance/corporate/contact-us/frequently-asked-questions/proposed-target-benefit-plan-framework.html>.

87 <https://www.osler.com/osler/media/Osler/reports/pensions-benefits/Target-Benefit-Plans-in-Canada.pdf>.

88 Willis Towers Watson, "Pension reform in British Columbia: New defined benefit funding rules and introduction of single employer target benefit plans," Dec. 19, 2019.

89 <https://www.ontariocanada.com/registry/showAttachment.do?postingId=44107&attachmentId=57516>.

90 Sun Life, "Designed for Savings 2023."

91 National Institute on Aging, "Affordable Lifetime Pension Income for a Better Tomorrow."

92 [https://www.sunlife.ca/workplace/en/group-retirement-services/news/decumulation/dynamic-pensions-hold-the-promise-to-provide-retirement-security/#:~:text=Dynamic%2Opensions%20offer%20the%20benefit,retirement%20income%20fund%20\(RRIF\).](https://www.sunlife.ca/workplace/en/group-retirement-services/news/decumulation/dynamic-pensions-hold-the-promise-to-provide-retirement-security/#:~:text=Dynamic%2Opensions%20offer%20the%20benefit,retirement%20income%20fund%20(RRIF).)

## COUNTRY PROFILE: CANADA

## Key metrics: Canada

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<p><b>Contribution rate</b> Mandatory contributions to Canada/Quebec pension plan:<sup>93</sup> Employee: 5.7%, Employer: 5.7%</p> <p>Employer and employee contribution rates in voluntary workplace plans vary.</p>	<p><b>Government spending on retirement benefits</b> 2020–23: 6.5% of GDP (11.1% of total government spending)<sup>94</sup> 2040: 8.1%<sup>95</sup></p>	<p><b>Retirement coverage</b> The Canada and Quebec pension plans cover all workers. Workplace plans are voluntary; overall, 39% of workers have access to a plan through their employer.<sup>96</sup></p>	<p><b>Asset allocation of funded retirement system</b> Equities: 37.7% Bonds: 25.1% Cash: 4.5% Other: 32.7% Abroad: 47.9%<sup>97</sup> (May not add up to 100% due to overlap and/or missing categories.)</p>
<p><b>Net replacement rate from workplace plan</b> 20.2% (voluntary plans that only cover about half the population, figure includes DB and DC)<sup>98</sup></p>	<p><b>Retirement age and duration</b> Effective retirement age:<sup>99</sup> 64.9 (men), 63.5 (women) Expected years in retirement:<sup>100</sup> 20.2 (men), 24.0 (women)</p>	<p><b>Net income replacement rate for low earner</b> 54.5% net replacement rate for individual earning half of average income level<sup>101</sup></p>	<p><b>Choice of investment allocation</b> TDFs</p>

93 PAAG 2023, table 8.1.

94 PAAG 2023, table 8.3.

95 PAAG 2023, table 8.4.

96 Source: Statistics Canada, <https://www150.statcan.gc.ca/n1/daily-quotidien/220718/dq220718a-eng.htm>.

97 OECD Pension Markets in Focus 2023, tables B8, B9, B10, B11, B12.

98 PAAG 2023, table 8.4.

99 PAAG 2023, table 6.13.

100 PAAG 2023, table 6.15.

101 PAAG 2023, table 4.5.

## COUNTRY PROFILE: CANADA

## Key metrics: Canada (continued)

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Gross replacement rate from government plan</b> 44% net replacement rate for average income earner <sup>102</sup> from CPP/QPP	<b>Old age to working population</b> 2022: 31.7, 2052: 46.3 <sup>103</sup>	<b>How access to workplace plan is determined</b> Most retirement plans are sponsored by the employer. This may also be a registered retirement plan (RRP) which is technically an individual plan.	<b>Access to retirement savings</b> After age 71 participants are required to withdraw a minimum amount which rises each year with age. <sup>104</sup>
<b>Funded retirement assets/ GDP</b> 152%/\$3,126,435 mil. private, 23.1%/\$472,376 mil. public <sup>105</sup>	<b>Indexation of pensions formula</b> CPP payments indexed to the CPI all item index. No financial sustainability correction.	<b>Uptake of guaranteed income beyond state pension</b> Only about 1% of assets in decumulation are used to purchase annuities <sup>106</sup>	<b>Availability of guaranteed income in workplace plans</b> Post-retirement income not usually integrated in DC plans, income based on drawdown and minimum withdrawal requirements

102 OECD Canada Country profile.

103 PAAG 2023, table 6.2.

104 <https://www.canada.ca/en/revenue-agency/services/tax/businesses/topics/completing-slips-summaries/t4rsp-t4rif-information-returns/payments/chart-prescribed-factors.html>.

105 PAAG 2023, table 9.1.

106 Sun Life, "Designed for Savings 2023."



## COUNTRY PROFILE

# Chile

## Background

Chile was in the vanguard of pension reform as the first country to replace its PAYG system with funded individual accounts in 1981.<sup>107</sup> However, low mandatory contribution rates combined with a high rate of informality in the economy led to low retirement incomes. Over time, the system has evolved from its initial funded defined contribution structure to incorporate and improve minimum retirement income guarantees, which initially began with the *Pensión Mínima Garantizada por el Estado* (PMGE) and *Pensiones Asistenciales* (PASIS). These were enhanced through the 2008 reform via the solidarity pillar that included the *Pensión Básica Solidaria* (PBS) and the *Aporte Previsional Solidario* (APS). This system was subsequently replaced in 2022 by the *Pensión Garantizada Universal* (PGU).<sup>108</sup>

The latest reform passed in January 2025, introduces the *Seguro Social Previsional* (SSP), composed of *Beneficio de Años Cotizados* (BAC - PAYG system), *Compensación por expectativas de vida*, and the *Seguro de Invalidez y Supervivencia* (SIS), which already existed. These benefits are financed through different sources: contribution of 2.5% of gross wage (permanent), 1.5% that is a loan called *Aporte con Rentabilidad Protegida* (ARP) which starts expiring in 20 more years, state contributions, and the return from investments.

The core of Chile's system remains a mandatory Defined Contribution system, in which workers and employers contribute a prescribed percentage of covered earnings to individual accounts. These accounts are managed by private pension fund administrators (*Administradoras de Fondos de Pensiones*, or AFPs), which compete among each other based on cost and investment performance. Workers choose for themselves which of the AFPs to direct their contributions to, employers do not play any role beyond channeling contributions from the payroll.

### KEY TAKEAWAYS

- The first country to replace its PAYG system with funded individual accounts, Chile has evolved to a primarily mandatory DC system.
- A large informal sector and low contribution rates led to low replacement rates and dissatisfaction with the pension system.
- The pension reforms will raise the employer contribution rate and create a temporary PAYG social security benefit.

107 <https://www.ssa.gov/policy/docs/ssb/v64n4/v64n4p66.html>.

108 OECD Pensions at a Glance 2023: How does Chile compare? [https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/10/pensions-at-a-glance-2023-country-notes\\_2e11a061/chile\\_26425627/fac0d22-en.pdf](https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/10/pensions-at-a-glance-2023-country-notes_2e11a061/chile_26425627/fac0d22-en.pdf).

## COUNTRY PROFILE: CHILE

## Competition within a clearly defined framework

Investment choice architecture in Chile is highly standardized. The AFPs currently offer five multi-asset funds with proscribed risk and return characteristics that savers can choose from. Likewise, at retirement, individuals can choose from three main payout options to access their savings. Those with a sufficient balance can choose between purchasing a life annuity from one of the insurance companies or a programmed withdrawal, where the assets are paid out as a non-guaranteed monthly income stream.<sup>109</sup> Retirees who do not meet the minimum balance requirements for annuitization must take a programmed withdrawal. The third option is temporary income plus deferred annuity: the retiree first receives programmed withdrawals for a few years and can then use the remaining balance to purchase an annuity. Additionally, retirees can withdraw up to 10% of their balance as a lump sum.

To access their retirement savings, all retirees must obtain comparative quotes through the government-run Sistema de Consultas y Ofertas de Montos de Pensión (SCOMP), which displays standardized offers for programmed withdrawals and annuities from all providers. Based on historical data, about 60 percent of old-age pensions are taken as programmed withdrawals by default because the beneficiaries do not have sufficient savings to qualify for annuitization. Of those who exceed the asset threshold, about 56% choose the programmed withdrawal, and 44% choose an annuity, either immediately or through the temporary income plus deferred annuity option.<sup>110</sup> For example, while interest rates were low, some people preferred to defer the annuity purchase until interest rates had risen.

### BY 2033

Employer contribution rate to fund individual accounts and provisional social security will rise.



## Rising employer contributions, new investment options in individual accounts

Recent years have seen growing dissatisfaction with pension adequacy, driven by longer life expectancies, insufficient historical contribution rates, and low interest rates that have eroded returns. Discontent with the pension system was one of the underlying causes of the widespread protests in 2019.<sup>111</sup> The COVID-19 pandemic worsened this situation, as the rules on lump sum withdrawals were temporarily relaxed, leading to approximately 30 percent of contributors depleting their retirement accounts.<sup>112</sup>

In response, Chile has embarked on a reform agenda. Under the current proposal, the employer contribution rate, previously 1.5 percent, will rise gradually to 8.5 percent by 2033. Four percent of this increase will immediately fund a newly created social security system, the *Seguro Social Previsional* (SSP), which will fund the PAYG system (BAC), life-expectancy compensation for women and disability and survivor's insurance (SIS). Additionally, the employer contribution to individual accounts will rise to 4.5 percent by 2033. The Fondo Autónomo de Protección Previsional FAPP, will administer and invest the asset for the SSP, projected to hold assets equivalent to 9% of GDP by 2050.

109 government-run *Sistema de Consultas y Ofertas de Montos de Pensión* (SCOMP).

110 "A sustainable, variable lifetime income solution for the Chilean pension system" Fuentes, Fulmer, Garcia-Huitron [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4045646](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4045646).

111 <https://www.scottareynhout.com/blog/2019/10/24/historical-background-to-the-2019-chilean-protests-part-4-pensions-explained>.

112 <https://www.cambridge.org/core/journals/journal-of-pension-economics-and-finance/article/chilean-pension-withdrawals-and-the-2025-reform-fiscal-and-retirement-consequences/ADAA0903863A29C2DED67EDFC4306770>.

**COUNTRY PROFILE: CHILE**

The proposal also includes changes to the individual funded accounts. The current A–E risk-based multi-fund investment options will be replaced with at least ten generational target-date funds for the accumulation phase and a new suite of funds specifically for the decumulation phase. These will still be subject to some requirements regarding the composition of their investment portfolios (e.g. shares of foreign and domestic investments or state-owned instruments) but the restrictions will be less prescriptive. To stimulate competition

among the AFPs, every two years ten percent of existing active accounts will be retendered and awarded to the AFP submitting the lowest cost proposal. Only AFPs with a market share below 25% will be eligible to compete in the tender. Additionally, the asset threshold for annuitization will be lowered, as currently only 40 percent of retirees qualify for annuity purchase.



## COUNTRY PROFILE: CHILE

## Key metrics: Chile

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Contribution rate</b> Mandatory contributions to AFP: Employee: 10%, Employer: 2.4% (additional insurance premiums) <sup>113</sup>	<b>Government spending on retirement benefits</b> State pension provides 11.9% replacement rate for average income earner <sup>114</sup>	<b>Retirement coverage</b> AFP system covers 85.8% of working population <sup>115</sup>	<b>Asset allocation of funded retirement system</b> Equities: 39% Bill and bonds: 59% Cash and deposits: 0.9% Other: 1.6% <sup>116</sup> (May not add up to 100% due to overlap and/or missing categories.)
<b>Net replacement rate from workplace plan</b> 45.7% net replacement rate for average income earner <sup>117</sup>	<b>Retirement age and duration</b> Effective retirement age: 67.3 (men), 63.7 (women) Expected years in retirement: 16.2 (men), 21.7 (women) <sup>118</sup>	<b>Net income replacement rate for low earner</b> 60.1% net replacement rate for individual earning half of average income level <sup>119</sup>	<b>Choice of investment allocation</b> Employee chooses AFP provider and investment portfolio

113 PAAG, table 8.1.

114 OECD Country profile.

115 PAAG, table 9.2.

116 OECD Pension markets in Focus 2024.

117 OECD Country profile.

118 PAAG, table 6.15.

119 OECD Country profile.

## COUNTRY PROFILE: CHILE

## Key metrics: Chile (continued)

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Gross replacement rate from government plan</b> 11.9% replacement rate from state pension <sup>120</sup>	<b>Old age to working population</b> 2022: 20.9 <sup>121</sup>	<b>How access to workplace plan is determined</b> Mandatory participation for all employees; employee chooses AFP provider <sup>122</sup>	<b>Access to retirement savings</b> Early withdrawal permitted under specific circumstances; minimum pension guarantee from state
<b>Funded retirement assets/GDP</b> 59.2% private retirement assets <sup>123</sup>	<b>Indexation of pensions formula</b>	<b>Uptake of guaranteed income beyond state pension</b> 50–60% of those with balances above the minimum threshold select the annuity option. <sup>124</sup>	<b>Availability of guaranteed income in workplace plans</b> Retirees can choose between programmed withdrawals or life annuities from insurance companies. <sup>125</sup>

120 PAAG, table 4.2.

121 OECD Country profile.

122 Table 2 sheet, Chile mandatory system design.

123 OECD Pension markets in Focus 2024.

124 Center for Retirement Research, "Competition, Asymmetric Information, and the Annuity Puzzle: Evidence from a Government-Run Exchange in Chile," Jan. 2, 2019, <https://crr.bc.edu/competition-asymmetric-information-and-the-annuity-puzzle-evidence-from-a-government-run-exchange-in-chile/>

125 Chilean pension system regulations.



## COUNTRY PROFILE

# Germany

## Background

In common with most countries, the public pension (Gesetzliche Rentenversicherung) forms the base of the retirement system. This is a typical mandatory pay-as-you-go pension. Workers and employers each contribute 9.3% of earnings, up to an annual contribution ceiling (€96,600 in 2025).<sup>126</sup> The system provides additional supplements such as the *Grundrente* for low-income earners. Certain groups, such as civil servants and members of professional pension funds (*Berufsständische Versorgungswerke*), are excluded from the public pension, as they have their own industry-specific arrangements instead.

Many employers offer a company pension plan (*Betriebliche Altersvorsorge*, bAV). Employee participation is voluntary, but all employees have the right to participate in an occupational pension plan if they wish. If the company does not offer its own plan, it must take out a direct insurance contract (*Direktversicherung*) on the employee's behalf upon request. Contributions up to €644/month (2025) are tax-free, and up to €322/month are exempt from social security contributions. This exemption reduces the amount that employers who offer a plan must contribute to the public pension; in return, the employer must match a minimum of 15% of the amount that the employee contributes to the corporate plan. Some employers offer a more generous match as a benefit.

## Reforms aim to incentivize longer working lives and private investments

As in most countries, the pay-as-you-go public pension system is under considerable strain due to population aging. At the beginning of the 1960s, there were six active workers per pensioner; this ration has now fallen to two active workers per pensioner, and it is expected to deteriorate further.<sup>127</sup> The German Chancellor, Friedrich Merz, recently declared that “the current welfare state can no longer be financed”.<sup>128</sup> Recent reforms have focused on financial incentives for working longer and encouraging private

### KEY TAKEAWAYS

- A stretched public system supplemented by voluntary workplace plans is moving towards insurance-based solutions and funded occupational pensions.
- Employers must offer a retirement plan if the employee requests it.
- Recent reforms have focused on financial incentives for working longer and encouraging private pension savings.

<sup>126</sup> Maha Steinfeld, *PKF Deutschland Magazine*, “Social Insurance Values for 2025,” Jan. 10, 2025, <https://www.pkf.de/en/pkf-magazine/issues/2025/issue-1-25/social-insurance-values-2025>.

<sup>127</sup> Helen Whittle, *DW*, “Germany struggles to fix its pension system,” 05/12/2025, <https://www.dw.com/en/how-to-avert-the-pension-fund-crisis-in-germany/a-68566053>.

<sup>128</sup> *Germany Times*, “German Chancellor Friedrich Merz: “The Current Welfare State Can No Longer Be Financed,” Sept. 3, 2025, <https://germanytimes.com/ztnrtp-german-chancellor-friedrich-merz-the-current-welfare-state-can-no-longer-be-financed>.

## COUNTRY PROFILE: GERMANY

pension savings, e.g. by raising the contribution limits on “Riester” private pension savings plans and by proposing fairness investment accounts for children.<sup>129,130,131</sup>

## Removing risk from the employer in occupational plans

Around 40 percent of German employees participate in a company pension plan.<sup>132</sup> The traditional model for providing occupational pensions in Germany is Direktzusage, where the employer promises to pay a pension directly from its operating assets upon retirement. These plans are usually unfunded, though the liability must be recognized through book reserves recorded on the company’s balance sheet. While Direktzusage still accounts for a large share of outstanding plans, this is primarily due to legacy contracts. This model has been declining due to its financial and longevity risks to employers. Companies have increasingly shifted to insurance-based or Defined Contribution retirement plans, where the employer liability for pension payments is either significantly reduced or eliminated.<sup>133</sup>

Direct insurance contracts (Direktversicherung), where the employer takes out a group life insurance policy on behalf of employees, are now the most popular model, used by almost 60% of employers.<sup>134</sup> Since 2002, employers must provide this option to employees on request, and co-contribute at least 15% of employee contributions. These plans are particularly popular among small and mid-sized companies due to their administrative efficiency.

*Pensionskasse* and *Pensionsfonds* are both external pension providers that serve multiple employers. *Pensionskasse* are like direct insurance in that they invest the money primarily in low-risk bonds and guarantee a minimum pension for

**“The current welfare state can no longer be financed.”**

Friedrich Merz, German Chancellor

**EARLY 1960s**

Six active workers  
per pensioner

**VS.**

**BY 2033**

Two active workers  
per pensioner

the retirement phase. Traditionally popular, these have lost ground to direct insurance as many employers prefer to contract directly with larger insurance companies. Pensionsfonds, which employ a more flexible, market-oriented investment policy that usually delivers higher returns, are gaining in popularity.<sup>135</sup> These are exempt from the requirement to guarantee a minimum pension if the employer agrees to cover shortfalls. Additionally, *Unterstützungskasse*, which is typically used for executive compensation, is a legally independent institution that invests the assets without strict investment limits. Employers often eliminate their liability by taking out an insurance contract.

New “Pure DC” schemes, introduced in 2018 under the *Betriebsrentenstärkungsgesetz*, shift all investment and longevity risk to the employee. The employer’s responsibility ends with the agreed contribution, and benefits depend solely on investment performance. These plans require collective agreements with the unions and approval from the German supervisory authority, BaFin. The chemical and pharmaceutical sector was the first to introduce a DC plan in 2022, followed by the energy company Uniper in 2023.<sup>136</sup>

129 Olaf Storbeck, *Financial Times*, “Friedrich Merz’s plan will not fix Germany’s pensions crunch, warns Bundesbank,” Jun. 17, 2025, <https://www.ft.com/content/bea38d27-5807-4492-baeb-549bf0c0ce5c>.

130 German Ministry of Finance Shares Draft Bill on Pensions reform, Oct. 4, 2024, <https://www.europeanpensions.net/ep/german-govt-shares-draft-bill-on-private-pension-reform.php>.

131 VoxNews, “Germany faces pensions crisis: could 10 euros a month change the way people invest?,” Aug. 25 2025.

132 <https://germanpedia.com/company-pension-plan-germany/>.

133 [https://www.europeanpensions.net/ep/Almost-all-German-companies-have-switched-to-DC-WTW.php?utm\\_source=jsrecent](https://www.europeanpensions.net/ep/Almost-all-German-companies-have-switched-to-DC-WTW.php?utm_source=jsrecent).

134 [https://www.europeanpensions.net/ep/Almost-all-German-companies-have-switched-to-DC-WTW.php?utm\\_source=jsrecent](https://www.europeanpensions.net/ep/Almost-all-German-companies-have-switched-to-DC-WTW.php?utm_source=jsrecent).

135 [https://www.europeanpensions.net/ep/Almost-all-German-companies-have-switched-to-DC-WTW.php?utm\\_source=jsrecent](https://www.europeanpensions.net/ep/Almost-all-German-companies-have-switched-to-DC-WTW.php?utm_source=jsrecent).

136 <https://www.pensionpolicyinternational.com/germany-social-partners-move-forward-to-implement-pure-dc-plans/>.

## COUNTRY PROFILE: GERMANY

## Income choices vary by plan

In the German context, corporate plans that use an insurance policy or funded assets rather than a commitment from the employer to guarantee the retirement benefit are referred to as DC plans. In most cases, the decision on how to invest the assets is taken by the external insurance company or retirement plan. When employees can choose their investments, this is typically limited to selecting a risk profile.

The distribution options at retirement vary depending on the plan. German occupational pensions can typically be taken in one of three ways, although not all plans will offer all these options:

- **Annuity:** The standard choice, sometimes with a guarantee period (e.g., 10 years). Annuities often have low returns and are taxed as income.

- **Lump Sum:** Allowed in some plans but may trigger higher tax brackets, as the full amount is taxed in the year of receipt.
- **Hybrid:** A combination of lump sum and annuity, offering some flexibility but with similar tax considerations.

Less common is the dynamic annuity, where payments vary over time (e.g., higher in early retirement), though these changes are typically based on a predetermined schedule rather than linked to market performance.



## COUNTRY PROFILE: GERMANY

## Key metrics: Germany

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Contribution rate</b> Mandatory contributions to statutory pension: Employee: 9.3%, Employer: 9.3% <sup>137</sup> Employer and employee contribution rates in voluntary workplace plans vary.	<b>Government spending on retirement benefits</b> State pension provides 43.9% replacement rate for average income earner <sup>138</sup>	<b>Retirement coverage</b> Occupational plans cover 54% of working population <sup>139</sup>	<b>Asset allocation of funded retirement system</b> Equities: 7% Bills and bonds: 43% Cash and deposits: 2% Other: 48% <sup>140</sup> (May not add up to 100% due to overlap and/or missing categories.)
<b>Net replacement rate from workplace plan</b> 55.3% net replacement rate for average income earner <sup>141</sup>	<b>Retirement age and duration</b> Effective retirement age: 63.7 (men), 63.4 (women) Expected years in retirement: 18.8 (men), 22.6 (women) <sup>142</sup>	<b>Net income replacement rate for low earner</b> 59.2% net replacement rate for individual earning half of average income level <sup>143</sup>	<b>Choice of investment allocation</b> Employer chooses provider and investment options

137 PAAG, table 8.1.

138 OECD Country profile.

139 PAAG, table 9.2.

140 OECD Pension markets in Focus 2024.

141 OECD Country profile.

142 PAAG, table 6.15.

143 OECD Country profile.

## COUNTRY PROFILE: GERMANY

## Key metrics: Germany (continued)

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Gross replacement rate from government plan</b> 43.9% replacement rate from statutory pension <sup>144</sup>	<b>Old age to working population</b> 2022: 38% <sup>145</sup>	<b>How access to workplace plan is determined</b> Employer must provide a “Direktversicherung” plan if the employee requests it. Other plans are voluntary.	<b>Access to retirement savings</b> Limited early access; Riester plans have restrictions until retirement age
<b>Funded retirement assets/ GDP</b> 6.5% private retirement assets <sup>146</sup>	<b>Indexation of pensions formula</b> NA	<b>Uptake of guaranteed income beyond state pension</b> NA	<b>Availability of guaranteed income in workplace plans</b> Mix of insurance contracts, pension funds, and employer-sponsored arrangements available

144 PAAG, table 4.2.

145 OECD Country profile.

146 OECD Pension markets in Focus 2024.



## COUNTRY PROFILE

# Japan

## Background

Japan's retirement system combines a mandatory public pension structure with voluntary corporate and individual savings schemes. The structure is broadly divided into the National Pension, the Employees' Pension Insurance (EPI), and a range of voluntary corporate and personal pension arrangements.

The foundation of the system is the National Pension, a flat rate PAYG plan covering all residents between the ages of 20 and 59. Workers must enroll in this themselves and pay a monthly contribution of ¥17,510 (approximately \$120, as of 2025). Additionally, employees working in companies with five or more staff are also covered by the Employees' Pension Insurance (EPI). Contributions to the EPI are earnings-related, with a combined rate of 18.3 percent split equally between employer and employee on earnings up to a cap of ¥650,000 (approx. \$4,400) per month. Both the National Pension and EPI are predominantly financed on a pay-as-you-go basis, with premiums and government subsidies covering roughly 90 percent of costs. The remaining portion is supported by investment returns from the Government Pension Investment Fund (GPIF), the world's largest pension fund, which manages around US\$1.7 trillion.<sup>147</sup>

### KEY TAKEAWAYS

- The government benefit consists of the flat rate National Pension and the earnings-based Employees' Pension Insurance.
- Employees must take their savings with them when they change jobs; DC assets must be transferred to the new employer's plan within six months.
- To help ensure the long-term stability of the national pension system, the government introduced an automatic adjustment mechanism, which gradually reduces benefit growth.

## Modest contribution limits to voluntary corporate and individual retirement accounts

In addition to the occupational pension through the EPI, companies may also offer their own retirement plans to employees. As in most countries, the trend is increasingly towards DC plans, although legacy DB plans still manage a lot of pension assets. Large, publicly listed companies are the most likely to provide a DB plan. Smaller companies will either provide a DC plan or encourage employees to contribute to an Individual Defined Contribution scheme (iDeCo).

The contribution limits to both corporate and individual retirement accounts are modest compared to the national and employees' pension plans. The total monthly combined contribution to corporate DB and DC schemes cannot exceed ¥55,000 (about \$374) under the integrated premium management system introduced in 2024. The monthly contribution to the iDeCo is also capped, in the range of 20,000 to 68,000 Yen, depending on employment type. For most people, therefore, the government system will be their main source of retirement income, with corporate and individual plans playing more of a supplementary role.

## COUNTRY PROFILE: JAPAN

In keeping with their voluntary nature, plan design and withdrawal options differ widely among corporate plans. Vesting rules, eligibility criteria, investment and distribution options and asset management structures all vary between companies. Plans may be administered internally, by insurers, or by pension providers serving multiple employers. There has recently also been a trend towards the use of OCIO for DB plans. The Japanese system also assumes that employees will take their savings with them when they change jobs. DC assets must be transferred to the new employer's plan within six months, or they are rolled over to the National Pension Fund Association.

## Reforms attempt to stabilize government system and expand private savings

Benefits from the national and employees' pension plans can only be taken as an income stream, as is typical in PAYG systems. If an insured person dies before receiving any pension, certain family members may qualify for a lump-sum death benefit as their beneficiary, although there are increasing demands that benefits for dependents should be abolished or strictly limited.<sup>148</sup> Corporate DB plans typically provide a lifetime annuity, though some offer flexible payment structures. DC plans, on the other hand, allow more varied payout options, such as lump sums, periodic payments over five to twenty years, life annuities, or combinations thereof. Currently, more than 70% of DC participants choose

a lump sum payment at retirement.<sup>149</sup> This is doubtless partly because a lump sum is the default; if a participant fails to make an active choice by age 70, the benefit will be paid as a lump sum.

### Employees must take their savings with them when they change jobs



DC assets must be transferred within six months; otherwise rolled over to the National Pension Fund Association.

In recent years, demographic pressures and fiscal constraints have spurred debate over the long-term financial sustainability of Japan's pension system. The government has introduced a "macroeconomic slide" automatic adjustment mechanism, which gradually reduces benefit growth to reflect changes in life expectancy and the working-age population.<sup>150</sup> So far, the slide mechanism has been used to curb payment increases in five fiscal years (2015, 2019, 2020, 2023 and 2024). Under current rule, the mechanism cannot be used during years of deflation. There have been calls for the adjustment mechanism to be invoked every year as part of broader pension reforms, although this might lead to real and nominal benefit declines.<sup>151</sup>

148 Morinobu Shigeki, Nippon.com, "Fiscal 2025 Tax System Revision: The "¥1.03 Million Wall" and Fiscal Populism," Feb. 6, 2025, <https://www.nippon.com/en/in-depth/d01096/>.

149 Ikari Hiroshi, Research Institute of Economy, Trade and Industry, "Corporate Pensions and the Initiative to Turn Japan into a Leading Asset Management Center: Toward resolving the public's anxiety," [https://www.rieti.go.jp/en/columns/s24\\_0017.html](https://www.rieti.go.jp/en/columns/s24_0017.html).

150 Jun Saito, Japan Center for Economic Research, "Macroeconomic Slide' Mechanism of the Japanese Pension System," Oct. 23, 2017, <https://www.jcer.or.jp/english/macroeconomic-slide-mechanism-of-the-japanese-pension-system>.

151 Pension Policy International, "Japan to curb pension benefit increases for 2nd straight year," <https://www.pensionpolicyinternational.com/japan-to-curb-pension-benefit-increases-for-2nd-straight-year/>.

## COUNTRY PROFILE: JAPAN

## Political headwinds slowing reform efforts

One of the Kishida administration's top goals has been to promote Japan as a leading asset management center, with the dual objectives of reforming the asset management sector and increasing the asset-based income of Japanese households. The administration aims to promote private saving and shift household assets from savings accounts to higher return instruments. Initiatives include encouraging foreign financial institutions to enter Japanese financial markets to increase the sophistication and available asset classes of Japanese corporate pension funds.<sup>152</sup> There have also been proposals to extend national pension contributions

to age 65, raise the income cap on pension premiums and significantly raise the contribution caps on corporate DC and individual iDeCo plans.<sup>153,154</sup> However, the recent Upper House elections in July 2025 resulted in the ruling Liberal Democratic Party (LDP) and its coalition partner, Komeito, losing their majority.<sup>155</sup> As a result, the government's ability to push the reform agenda has been diminished, and rising nationalist sentiment might even weaken current broad-based support for foreign investment and open markets.<sup>156</sup>



152 Shigeru Ariizumi, Financial Services Agency, the Japanese Government, "Promoting Japan as a Leading Asset Management Center," Aug. 3, 2024, <https://www.fsa.go.jp/common/conference/danwa/20240803.pdf>.

153 Ayami Ko, The Asahi Shimbun, "Ministry panel starts work for vital reform of pension system," Apr. 17, 2024, <https://www.asahi.com/ajw/articles/15232302>.

154 Pension Policy International, "Japan proposes significant increases in defined contribution pension plan contribution limits," <https://www.pensionpolicyinternational.com/japan-proposes-significant-increases-in-defined-contribution-pension-plan-contribution-limits/>.

155 Generated by AI Agent MarketPulse, AllInvest, "Japan's Upper House Election Shock: Implications for Fiscal Policy and Market Stability," July 20, 2025, <https://www.ainvest.com/news/japan-upper-house-election-shock-implications-fiscal-policy-market-stability-2507/>.

156 Edelman, "Japan's 2025 Upper House Election Results," July 24, 2025, <https://www.edelmanglobaladvisory.com/insights/japans-2025-upper-house-election-results>.

## COUNTRY PROFILE: JAPAN

## Key metrics: Japan

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Contribution rate</b> Mandatory contributions to public pension: Employee: 9.15%, Employer: 9.15% <sup>157</sup>	<b>Government spending on retirement benefits</b> State pension provides 32.4% replacement rate for average income earner <sup>158</sup>	<b>Retirement coverage</b> Occupational plans cover 57.1% of working population <sup>159</sup>	<b>Asset allocation of funded retirement system</b> Equities: 10% Bills and bonds: 24% Cash and deposits: 7% Other: 59% <sup>160</sup> (May not add up to 100% due to overlap and/or missing categories.)
<b>Net replacement rate from workplace plan</b> 38.8% net replacement rate for average income earner <sup>161</sup>	<b>Retirement age and duration</b> Effective retirement age: 68.3 (men), 67.0 (women) Expected years in retirement: 17.5 (men), 23.1 (women) <sup>162</sup>	<b>Net income replacement rate for low earner</b> 49.5% net replacement rate for individual earning half of average income level <sup>163</sup>	<b>Choice of investment allocation</b> DC plans allow employees to choose from an investment menu

157 PAAG, table 8.1.

158 OECD Country profile.

159 PAAG, table 9.2.

160 OECD Pension markets in Focus 2024.

161 OECD Country profile.

162 PAAG, table 6.15.

163 OECD Country profile.

## COUNTRY PROFILE: JAPAN

## Key metrics: Japan (continued)

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Gross replacement rate from government plan</b> 32.4% replacement rate from public pension <sup>164</sup>	<b>Old age to working population</b> 2022: 55% <sup>165</sup>	<b>How access to workplace plan is determined</b> Voluntary for employer and employee	<b>Access to retirement savings</b> Restricted early access; lump-sum withdrawals available at retirement
<b>Funded retirement assets/GDP</b> 28.8% private retirement assets <sup>166</sup>	<b>Indexation of pensions formula</b> Benefits indexed to wages and prices with “macroeconomic slide” adjustment mechanism	<b>Uptake of guaranteed income beyond state pension</b> NA	<b>Availability of guaranteed income in workplace plans</b> NA

164 PAAG, table 4.2.

165 OECD Country profile.

166 OECD Pension markets in Focus 2024.



## COUNTRY PROFILE

# The Netherlands

## Background

With its high asset levels, generous replacement rates and virtually universal coverage, the Dutch pension system typically scores very high on any international comparison of pension systems. In addition to the flat rate, PAYG government pension, both employers and employees make mandatory contributions to industry pension funds as part of the occupational retirement system. These are independent of the employer and regulated based on solvency requirements.

Historically, about 90% of employees have been in DB plans, with mandatory risk sharing pre- and post retirement and no individual accounts. As these became increasingly unsustainable, the Netherlands pioneered Collective Defined Contribution (CDC) plans. These are otherwise similar to DB plans, but allow for an adjustment to benefits if the fund's solvency falls below a certain level. CDC came in for criticism when funds were forced to make small cuts to benefits following the 2008 financial crisis, as the possibility of benefit cuts had not been clearly communicated to participants.<sup>167</sup>

## Reforms to convert occupational system to DC

The Netherlands is currently in the process of converting the occupational retirement system to DC. By 2027, all existing DB plans will have been converted into DC.

The Dutch version of DC is very different than the one employed in Anglophone countries. It will be DC in the sense that the pension benefit will be based on accrued contributions and investment returns, rather than a promise related to final or lifetime salary levels. However, participants will still have to convert their savings into a lifetime income stream at retirement, and will have limited or no freedom to manage their own investments during accumulation.

### KEY TAKEAWAYS

- It is hard to share risks equitably between different generations.
- It is possible to offer a workplace pension without the employer managing the plan or having any residual responsibility beyond the initial contribution.
- Even when it is mandatory to convert accumulated assets into an income stream, it is possible to offer options with different degrees of flexibility.

167 <https://www.im.natixis.com/en-institutional/insights/nim-cdc-1018>.

## COUNTRY PROFILE: THE NETHERLANDS

## New types of savings plans with different degrees of risk sharing

Under the new system, there will be two main options for occupational plans. In solidarity premium schemes, the fund employs a collective investment policy to smooth returns between different age cohorts. In flexible premium schemes, participants accumulate individual investment capital and can choose from among several options for the level of investment risk in their portfolios during the accumulation period.<sup>168</sup>

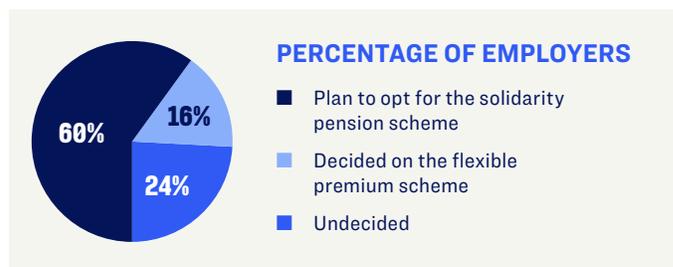
At retirement, participants will be able to take out up to 10% of their accrued pension capital as a lump sum. The rest of the capital will have to be annuitized in one of two ways:<sup>169</sup>

- A fixed pension benefit, which is essentially a traditional income annuity with no investment risk. The participant can choose from different payment profiles (e.g., stable, increasing over time, higher first then decreasing)
- A variable pension benefit, in which part of the money stays invested in the market. Depending on the provider, the participant may also be able to choose the risk level. This guarantees a lifetime income stream, but the level will fluctuate depending on investment performance and interest rates. Again, participants can choose from different payment profiles.

Participants can purchase the pension benefit from the same provider with which they have accrued the benefit or use a different provider. If they have accrued capital with multiple providers, they can combine these pots to purchase just one income stream. In addition to the payment profile, participants can also choose whether to include a survivor's benefit for a partner.

## Will the reforms achieve their goals?

The participant cannot choose which pension plan to participate in, as the fund is selected by the employer. So far, 60% of employers plan to opt for the solidarity pension scheme and only 16% have decided on the flexible premium scheme (the rest were undecided).<sup>170</sup> This means most participants will still be in plans that share investment risk between age cohorts even after the reforms. It remains to be seen how fair the risk-smoothing mechanisms will be and whether these reforms will be sufficient to bring the system onto a sustainable basis.



Participants will have more visibility into their individual account balances than ever before, and will also have more power to manage their investments and their retirement income choices. At the same time, they will also have to bear risks that previously were borne by the funds. This places higher demands on participant communications than before. Participants will need far more comprehensive and transparent communications to make sure that they feel confident and empowered within the new system.<sup>171</sup> It will also be important to monitor closely how allowing participants to see fluctuations in their balance, combined with a new ability to adjust their own risk level, will impact decision-making and retirement outcomes.

<sup>168</sup> Dentons, "New Dutch Pension Act on 1 July 2023: major reform of pension system—act now," Jun. 2, 2023, <https://www.dentons.com/en/insights/articles/2023/june/2/new-dutch-pension-act-on-1-july-2023-major-reform-of-pension-system-act-now>.

<sup>169</sup> <https://www.nn.nl/EN-Particulier/Your-pension-benefit-choices.htm>.

<sup>170</sup> <https://securities.cib.bnpparibas/pension-partnerships-dutch-pension-funds-in-a-post-pensions-act-world/>.

<sup>171</sup> <https://www.bnymellon.com/us/en/insights/aerial-view-magazine/the-changing-face-of-dutch-pensions.html/1000>.

## COUNTRY PROFILE: THE NETHERLANDS

## Key metrics: The Netherlands

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Contribution rate</b> Public: 18% Employee Workplace: 7.4% Employee, 11.2% Employer <sup>172</sup>	<b>Government spending on retirement benefits</b> 2020–23: 6.8% (10.9% of total government spending) 2040: 9.1% <sup>173</sup>	<b>Retirement coverage</b> 94.5% coverage <sup>174</sup> No coverage mandate for the self-employed	<b>Asset allocation of funded retirement system</b> Equities: 25.4% Bonds: 34.8% Cash: 3.4% Other: 36.5% Abroad: 85.0% <sup>175</sup> (May not add up to 100% due to overlap and/or missing categories.)
<b>Net replacement rate from workplace plan</b> 57% replacement rate from funded workplace pension <sup>176</sup>	<b>Retirement age and duration</b> 65 (men), 63.9 (women) Expected years in retirement: 19.2 (men), 22.5 (women) Average 20.8 <sup>177</sup>	<b>Net income replacement rate for low earner</b> 94.6% total net replacement rate for individual earning half of average income level <sup>178</sup>	<b>Choice of investment allocation</b> TDFs may be used in some of the flexible pension schemes. The majority of plans appear to be opting for solidarity schemes, which will not use TDFs.

172 PAAG 2023, table 8.1.

173 PAAG 2023, table 8.2.

174 PAAG 2023, table 9.1.

175 OECD Pension Markets in Focus 2023, tables B8, B9, B10, B11, B12.

176 Based on author calculation using data from PAAG 2023, tables 4.4 and 4.2.

177 PAAG 2023, figure 6.15.

178 OECD PAAG Netherlands country profile 2023.

## COUNTRY PROFILE: THE NETHERLANDS

## Key metrics: The Netherlands (continued)

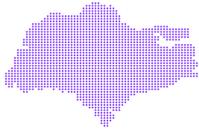
 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Gross replacement rate from government plan</b> 28% for average income earner (flat-rate benefit) <sup>179</sup>	<b>Old age to working population</b> 2022: 34.7, 2052: 51.0 <sup>180</sup>	<b>How access to workplace plan is determined</b> All employers have to provide a plan and make mandatory contributions. The employer decides which plan to offer.	<b>Access to retirement savings</b> It is possible to withdraw the 10% lump sum before retirement age, but it is taxed more heavily. <sup>181</sup> Otherwise individuals have no access to saved money before retirement.
<b>Funded retirement assets/GDP</b> 150% \$1,541,194 mil. <sup>182</sup>	<b>Indexation of pensions formula</b> AOW: indexed to legal net minimum wage Workplace: Variable benefit payments will adjust depending on market returns	<b>Uptake of guaranteed income beyond state pension</b> All retirement savings must be converted into retirement income (10% lump sum allowed)	<b>Availability of guaranteed income in workplace plans</b> Apart from a 10% lump sum, savings have to be annuitized, either as an income annuity or a variable annuity. The pension platforms provide these annuities, many are also insurers.

179 PAAG 2023, table 4.2.

180 PAAG 2023, table 6.3.

181 <https://www.zwitserleven.nl/en/personal/pension/about-to-retire/lump-sum-payment/#:~:text=You%20may%20withdraw%20up%20to,that%2C%20for%20example%205%25.&text=You%20cannot%20combine%20the%20lump,benefits%20in%20the%20years%20thereafter.>

182 PAAG 2023, table 9.2.



## COUNTRY PROFILE

# Singapore

## Background

Singapore has an interesting consolidated system for mandatory saving for health care, retirement, and housing purchase. The Central Provident Fund (CPF), to which both employers and employees make contributions, consists of three different accounts: the Ordinary account, the Special account and the MediSave account. Contributions to the MediSave account are used to pay for medical expenses. Housing plays an important role in the Singaporean social safety system, and so the funds in the Ordinary account can be used to fund a home purchase. The remaining funds in the Ordinary account, and the funds in the Special account, can be used for retirement savings or to fund education. If the home purchased using funds from the Ordinary account is sold, the proceeds must be returned to the account with interest.

Both employers and employees make mandatory contributions to the CPF. The total contribution rate decreases as participants age, from a starting level of 37% to 12.5% for those 65 and older. The composition of the contributions also varies by age; initially more than half of the contribution goes to the Ordinary account, with the rest divided more or less equally between the Special and MediSave accounts. For participants over 60, almost all the contributions go to the MediSave account. Contributions to the Special account peak between the ages of 50 and 55 and then fall.

On the face of it, Singapore has a fully funded DC system with mandatory annuitization of private assets to provide minimum guaranteed income in retirement. The reality appears a little more nuanced. For participants who stay in the default CPF investment vehicle, the CPF invests its assets in nontradeable Singapore government securities. Rather than separating the retirement assets, the government commingles the proceeds from the sale of these securities with other government funds, such as surpluses, and gives them to the Government of Singapore Investment Corporation (GIC)<sup>183</sup> to invest for long-term returns, rather in the style of a sovereign wealth fund.<sup>184</sup> Singapore's retirement assets, which are equivalent to 84% of GDP, are rather low when compared with countries such as Australia or the Netherlands with highly funded DC systems. Therefore, it appears that, in practice, the system may be a hybrid of funded DC and PAYG government funding.

### KEY TAKEAWAYS

- Integrating housing, retirement and healthcare savings into a single hub can make it easier for participants and policymakers to form a full financial picture.
- The literacy test is an interesting way of making sure participants are sufficiently knowledgeable before self-directing their investments. It may also be acting as an effective nudge to dissuade participants from doing so, even before it was introduced, most participants were happy to stay in the default.

183 <https://www.gic.com.sg/who-we-are/>.

184 <https://www.cpf.gov.sg/member/infocenter/cpf-clarifies/policy-faqs/how-are-cpf-monies-invested>.

## COUNTRY PROFILE: SINGAPORE

## Single integrated hub for retirement, health and housing savings

Unlike most countries, Singapore does not have a separate state pension that provides lifetime income. Rather, through the CPF, it mandates employees to save to fund their own retirement and healthcare expenses. For low-income seniors it provides a Silver Support Scheme and other targeted benefits, such as healthcare subsidies.<sup>185</sup>

Singapore requires savers to accumulate the full retirement sum (FRS) in their Ordinary and Special accounts before they can access their savings. The FRS is converted into a lifetime annuity, provided by the CPF, at age 65. If the saver has accumulated assets in excess of the FRS, they can withdraw these after the age of 55, either as a lump sum or an income stream, or leave them invested in the CPF. Savers who own their own home can apply to annuitize the basic retirement sum (BRS), which is half of the FRS. On the other hand, savers who wish for a higher level of guaranteed income can top their retirement account up to the enhanced retirement sum (ERS).<sup>186</sup> Some researchers have questioned whether the model of integrating housing and retirement saving may have led to an over-concentration of household assets in housing wealth.<sup>187</sup>

## Participant inertia keeps most assets in the default

The CPF pays interest on the funds in each account. The CPF rates reset quarterly and are based on market interest rates. The Ordinary account, which is more liquid than the

other accounts, receives a lower interest rate. Savers over 55 also receive a slightly higher interest rate than younger participants. When converting assets into lifetime income, the accumulated account balance is annuitized using the market-based rate at the time of annuitization. From this perspective, it is a self-sustaining system based on market rates.

Participants can choose to self-direct their investments rather than leaving them in the CPF default account. Initially, many self-directed investors suffered suboptimal risk-adjusted returns. One reason for this was the high fees and sales commissions charged for the funds, which were marketed through the retail channel.<sup>188</sup> Subsequently, in 2018 the Ministry of Manpower announced the removal of sales charges and the reduction of wrap fees for funds offered within the CPF Investment Scheme.<sup>189</sup> The CPF also introduced a financial literacy test and minimum asset and age thresholds for self-directing investments.<sup>190</sup> In practice, the majority of participants keep their assets in the default CPF account. Even before the financial literacy test was introduced, only 16% of participants chose to invest some of their savings outside the default CPF fund, confirming the general global phenomenon of passive acceptance of defaults.<sup>191</sup>

**Only 16%** of participants chose to invest some of their savings outside the default CPF fund.



185 <https://www.cpf.gov.sg/member/cpf-overview>.

186 <https://www.cpf.gov.sg/member/faq/retirement-income/general-information-on-retirement/what-are-the-retirement-sums-brs-frs-ers->

187 <https://www.nomurafoundation.or.jp/en/wordpress/wp-content/uploads/2019/03/NJACM3-2SP19-06.pdf>.

188 Joelle H. Fong, Olivia Mitchell, Benedict S. K. Koh and Toto Tanuwidjaja, "Investment Patterns in Singapore's Central Provident Fund System," *Journal of Pension Economics and Finance* 7, Mar. 2008, pp. 37–65.

189 <https://www.cpf.gov.sg/member/infocenter/news/news-releases/reduction-of-cpf-investment-scheme-fees-deferred-to-1-october-2020>.

190 <https://www.cpf.gov.sg/eSvc/Web/Schemes/CPFISSelfAwarenessQuestionnaire/Declaration>.

191 Joelle H. Fong, "Taking control: active choice in Singapore's national defined contribution scheme," *Journal of the Economics of Aging* 17, Oct. 2020.

## COUNTRY PROFILE: SINGAPORE

## Key metrics: Singapore

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Contribution rate</b> Mandatory contributions to central provident fund: <sup>192</sup> Employee: 20%, Employer: 17% (Varies by age)	<b>Government spending on retirement benefits</b> Pension benefits funded through worker contributions to the CPF	<b>Retirement coverage</b> All employees earning more than \$50 a month must be enrolled, except domestic workers, some students and foreigners.	<b>Asset allocation of funded retirement system</b> Equities: 0.1% Bonds: NA Cash: 2.4% Other: 97.5% Abroad: NA <sup>193</sup> (May not add up to 100% due to overlap and/or missing categories.)
<b>Net replacement rate from workplace plan</b> 61.1% net replacement rate for average income earner <sup>194</sup>	<b>Retirement age and duration</b> Effective retirement age: <sup>195</sup> 67 based on re-retirement age in 2021/2022; separate data for men and women not available.) Expected years in retirement: 22.4. <sup>196</sup> Life expectancy at 65: 20.4	<b>Net income replacement rate for low earner</b> 60.1% net replacement rate for individual earning half of average income level. <sup>197</sup> The government provides Silver Support income supplement equivalent to 5.4% of the average wage to low-income retirees.	<b>Choice of investment allocation</b> As a default, contributions are invested in the Central Provident Fund, which pays interest linked to either three-month or 10-year rates, depending on the account. <sup>198</sup> Participants can also choose their own investment funds, providing they meet the age and asset-level eligibility conditions and pass a financial literacy test. <sup>199</sup>

192 PAAG 2023, table 8.1.

193 OECD Pension Markets in Focus 2023, tables B8, B9, B10, B11, B12.

194 OECD Singapore country profile/Pensions at a Glance Asia Pacific 2022.

195 <https://tradingeconomics.com/singapore/retirement-age-men>.

196 OECD Pensions at a Glance Asia Pacific 2022. Life expectancy in retirement calculated based on life expectancy at 65 (20.4) + 2 to reflect re-retirement age of 67.

197 OECD Singapore country profile.

198 <https://www.cpf.gov.sg/member/growing-your-savings/earning-higher-returns/earning-attractive-interest>.199 <https://www.cpf.gov.sg/eSvc/Web/Schemes/CPFISSelfAwarenessQuestionnaire/Declaration>.

## COUNTRY PROFILE: SINGAPORE

## Key metrics: Singapore (continued)

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Gross replacement rate from government plan</b> Singapore does not have a PAYG government pension	<b>Old age to working population</b> NA	<b>How access to workplace plan is determined</b> Mandatory participation in CPF for all covered workers	<b>Access to retirement savings</b> The fund consists of three accounts: the Ordinary account, the retirement account and the MediSave account. Funds in the ordinary account can also be used for property purchase. Starting age 55, assets are moved into the Retirement account to set aside the FRS.
<b>Funded retirement assets/ GDP</b> 83.7%/\$400,747 mil. private <sup>200</sup>	<b>Indexation of pensions formula</b> Interest rate paid on contributions is reviewed quarterly, depending on market rates. At retirement the accumulated balance for annuitization is converted into an income stream.	<b>Uptake of guaranteed income beyond state pension</b> NA	<b>Availability of guaranteed income in workplace plans</b> The FRS must be annuitized. Savers can take lump-sum withdrawals from assets in excess of the FRS. <sup>201</sup>

200 PAAG 2023, table 9.2.

201 <https://www.cpf.gov.sg/member/retirement-income/monthly-payouts/non-cpf-life>.



## COUNTRY PROFILE

# Sweden

## Background

Sweden's mandatory retirement system is a hybrid, consisting of employer and employee contributions to a PAYG state benefit and a DC plan. The PAYG system also includes the AP buffer funds that it can draw on when disbursements exceed contributions.<sup>202</sup> For the Swedish state benefit, workers accumulate pension entitlements in notional defined accounts (NDC) based on their contributions, and have interest credited to these balances based on the rate of average wage growth. At retirement, this balance is converted into an annuity. In addition to the state pension, Swedish workers make a 2.5% contribution to the DC system (Premiepension).

## Automatic adjustment mechanisms and flexible retirement transition improve financial sustainability

Sweden is one of the forerunners in the use of automatic adjustment mechanisms (AAM) to keep the system on a sustainable basis over the long run. Firstly, the formula for converting the accumulated notional balance into an income varies based on cohort life expectancy, so it will automatically adjust for changes in longevity. Additionally, Sweden employs an automatic balancing mechanism that can cut both the crediting rate for accumulation and the indexation for pensions in payment if the "assets" of the state system (the value of the buffer fund plus the estimated value of contributions) fall below the level of liabilities. Following the 2008 financial crisis, pension payments were cut in both nominal and real terms from 2010.<sup>203</sup> This balancing period ended in 2018, when payments were restored to the wage index level, and normal indexing rules were applied from 2019.<sup>204</sup> In 2026, Sweden will raise payments since following several years of strong economic growth the retirement system is not over-capitalized.<sup>205</sup>

Another interesting element of the Swedish system is the flexibility around the retirement age and how to convert savings into income. The minimum retirement age is currently 63, but there is no maximum age. Participants also have a lot of flexibility around how to receive their retirement income.

### KEY TAKEAWAYS

- Notional accounts combined with automatic balancing mechanisms are an interesting way of keeping the PAYG state retirement system on a sustainable basis.
- Making the retirement process more flexible and removing the upper limit on the retirement age seems to be helpful for encouraging people to retire later.
- It is important to have a rigorous fiduciary process for vetting funds that are offered to individuals through the system.

202 <https://www.ap3.se/en/om-ap3/ett-starkt-pensionssystem>.

203 OECD Pensions at a Glance 2021, "Automatic adjustment mechanisms in pension systems."

204 [https://economy-finance.ec.europa.eu/system/files/2021-05/se\\_-\\_ar\\_2021\\_final\\_pension\\_fiche.pdf](https://economy-finance.ec.europa.eu/system/files/2021-05/se_-_ar_2021_final_pension_fiche.pdf).

205 *Investments and Pensions Europe*, "Sweden agrees mechanism to share pension system surplus with pensioners," Aug. 29, 2025.

## COUNTRY PROFILE: SWEDEN

They can choose to start the state pension and the DC pension at different ages. They can choose to initially take only a partial benefit and leave the rest of their account invested so they will receive a higher benefit when they take the full benefit. They can also pause payments if they return to work and continue to accrue interest on their account balance.<sup>206</sup> As a result, Sweden has the highest age of labor market exit (65.5 for men, 64.5 for women) of all the Nordic countries except Iceland, and the fourth highest in Europe.<sup>207</sup> This obviously also helps improve the sustainability of the system.

## Inertia, governance and annuitization on the DC platform

The DC portion of the Swedish system is like Individual Choice DC systems for the accumulation phase. The default fund, AP7 Såfa, is a multi-asset class portfolio managed by the state pension fund. This automatically adjusts the risk level of the portfolio as the worker approaches retirement, such as target date funds. Workers who want to self-direct the DC portion of their investments can choose from the wide range of investment funds offered on the platform.<sup>208</sup> Initially, about two thirds of participants made active choices, but since then interest in self-directed investments has plummeted and only 2% to 3% of savers make an active choice in the first year. Also, 40% of those who made an active choice at the beginning have not made any changes since.<sup>209</sup> This confirms the findings regarding investor inertia that we also observe in numerous other countries.

### Flexibility in the Swedish retirement transition



Highest age of labor market exit of most Nordic countries

Participants can choose to convert the DC savings into an income annuity provided by the platform, or to leave them invested. If they leave the money invested, the value of their monthly payment will fluctuate depending on the value of the underlying investments.

The DC system suffered a string of scandals in the 2010s when it was found that some of the funds being offered on the platform were fraudulent. As a result, in 2022 Sweden established a fund selection agency, Fondtorgsnämnden, to procure, monitor and quality assure the funds that can be offered on the government platform.<sup>210</sup> The agency is currently going through the procurement process for different categories of funds, e.g., it's currently accepting proposals for European and global index funds.<sup>211</sup> This is a good illustration of the importance of having a strong fiduciary responsible for making sure that the choices being offered to participants are good ones.

206 <https://www.pensionsmyndigheten.se/forsta-din-pension/sa-fungerar-pensionen/premiepensionen-nar-du-gar-i-pension>.

207 PAAG 2023, table 6.13.

208 <https://www.ap7.se/english/ap7-safa/>.

209 Jasmine Michelsson and Josefin Klarin, "Investor activity and returns in the Swedish Premium Pension," MSc thesis in Finance at the Stockholm School of Economics, May 14, 2018.

210 Kim Wiesener, "The battle against fraudulent fund managers may be won in Tumba," *AMWatch*, Jun. 14, 2023, <https://amwatch.com/article16014031.ece>.

211 <https://www.ftn.se/nyheter/fondtorgsnamndenforlangeranbudstidenforupphandlingenaveuropeiskaochglobalaindexfonder.5.79547f9918ecba44e3b3be6.html>.

## COUNTRY PROFILE: SWEDEN

## Key metrics: Sweden

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Contribution rate</b> Mandatory contributions to pension system: <sup>212</sup> Employee: 7.8%, Employer: 15.3% 2.5% of contributions go toward DC system	<b>Government spending on retirement benefits</b> 2020–23: 7.6% of GDP (14.2% of total government spending) <sup>213</sup> 2040: 7.0% <sup>214</sup>	<b>Retirement coverage</b> 94.6% overall coverage <sup>215</sup>	<b>Asset allocation of funded retirement system</b> Equities: 14.6% Bonds: 12.8% Cash: 0.9% Other: 4.6% Abroad: 14.9% <sup>216</sup> (May not add up to 100% due to overlap and/or missing categories.)
<b>Net replacement rate from workplace plan</b> 65.3% total replacement rate for average income earner <sup>217</sup>	<b>Retirement age and duration</b> Effective retirement age: <sup>218</sup> 65.5 (men), 64.5 (women) Expected years in retirement: <sup>219</sup> 19.5 (men), 22.6 (women)	<b>Net income replacement rate for low earner</b> 66.5% net replacement rate for individual earning half of average income level <sup>220</sup>	<b>Choice of investment allocation</b> AP7 default fund professionally managed with risk profile that adjusts over time. For the 2.5% required contribution to a DC plan, employees can choose from the menu of funds if they want.

212 PAAG 2023, table 8.1.

213 PAAG 2023, table 8.3.

214 PAAG 2023, table 8.4.

215 PAAG 2023, table 9.1.

216 OECD Pension Markets in Focus 2023, tables B8, B9, B10, B11, B12.

217 OECD Sweden Country profile.

218 PAAG 2023, table 6.13.

219 PAAG 2023, table 6.15.

220 PAAG 2023, table 4.5.

## COUNTRY PROFILE: SWEDEN

## Key metrics: Sweden (continued)

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Gross replacement rate from government plan</b> 49% <sup>221</sup>	<b>Old age to working population</b> 2022: 35.9, 2052: 46.0 <sup>222</sup>	<b>How access to workplace plan is determined</b> Mandatory participation for all covered workers	<b>Access to retirement savings</b> The earliest you can claim the pension is 63, no upper age limit on when to claim the pension. No early access to savings.
<b>Funded retirement assets/GDP</b> 97.9%/\$561,147 mil. private, 30.5%/\$179,056 mil. public <sup>223</sup>	<b>Indexation of pensions formula</b> Notional accounts for the state pension are annuitized at retirement. Benefits can be adjusted in retirement if buffers are too low and raised again once they recover.	<b>Uptake of guaranteed income beyond state pension</b> NA	<b>Availability of guaranteed income in workplace plans</b> All savings must be converted into an income stream provided by the savings platform. For the DC portion, participants can choose between an income annuity and a variable annuity.

221 PAAG 2023, table 4.2.

222 PAAG 2023, table 6.2.

223 PAAG 2023, table 9.2.



## COUNTRY PROFILE

# Switzerland

## Background

Switzerland has a comprehensive mandatory retirement system that combines elements of DB and DC. The first pillar is the state pension, known as AHV (Old Age and Survivors' Insurance), which is mandatory for everyone residing or working in Switzerland. This is financed through a combination of employer and employee contributions and tax revenues and provides a benefit equivalent to 16–33% of earnings. The AHV employs a redistributive formula that gives a higher benefit to low-income groups. Means-tested supplementary benefits are also available.

The occupational pension system, also mandatory for employees earning above a certain threshold, is governed by the BVG (Occupational Benefits Insurance Act). The minimum contribution rate rises with age from 7–18%. Employers are required to contribute at least half of the total contribution, but many offer more generous terms as an employee benefit. Some employers may also offer access to a top-up plan with a higher contribution rate on a voluntary basis. In addition to the mandatory occupational system, some employers offer voluntary “1e plans” to highly paid employees.

## A harmonized system combining competition and efficiency

Employers have the discretion to select their pension plan provider, which could be a corporate pension fund, an insurance-based provider, or a multi-employer pension scheme. Mirroring the global trend towards consolidation, the number of schemes has declined from over 2,000 to around 1,200, with corporate plans experiencing a particularly sharp decline.<sup>224</sup>

Providing they comply with the minimum requirements met by the regulator, pension plans have discretion over how the assets are invested. The providers compete based on crediting, conversion and contribution rates. There is only one pure insurer, Swiss Life, still providing pension plans on its balance sheet, while the rest of the plans are market-based. Pure insurance plans have lower returns than market-based plans, although they will do better in down years. Excess returns are distributed to members in the form of a lower contribution rate or a conversion rate above the minimum requirement.<sup>225</sup>

Unless the company manages its own retirement plan, neither employees nor employers have any control over how the contributions are invested. However, in special “1e” plans, which cater to higher-income employees,

### KEY TAKEAWAYS

- Switzerland's comprehensive retirement system includes a mandatory state pension and also an occupational pension system to which employees earning above a certain threshold must contribute.
- A strength of the Swiss occupational pension system is its portability. When an employee changes jobs, the assets are transferred to the new employer's plan.
- The Swiss pension system is facing pressure due to the aging population and considering reforms, which include adjustments to contribution rates, retirement age, and benefit structures.

224 <https://www.ipe.com/swiss-pension-fund-market-sees-increased-consolidation-activity/10059946>.

225 <https://www.ipe.com/news/swiss-collective-pension-funds-gain-ground-but-individualisation-threatens-solidarity/10131018>.

## COUNTRY PROFILE: SWITZERLAND

participants may select from a range of employer-approved investment options. On the other hand, within the third pillar, private savings, individuals enjoy full control over their investment choices and savings strategy.

One of the strengths of the Swiss occupational pension system is its portability. When an employee changes jobs, the assets are transferred to the new employer's pension plan. If there is a period of unemployment, the funds are temporarily rolled into a vested benefits account until a new employer is found. In this case, it is the employee's responsibility to initiate the transfer process once they are hired again.



### It's easy for employees to track their retirement assets

When an employee changes jobs, assets are transferred to the new employer's pension plan.

The harmonized nature of the Swiss system makes it easy for employees to keep track of their retirement assets. At retirement, the accumulated balance will always be in the last employer's retirement plan. Retirees can choose between taking an annuity, a lump sum or a combination of the two. Because the plans compete among each other and the regulator sets the minimum annuity conversion rate, retirees should receive a competitive rate even without shopping around providers. While it is possible to purchase an annuity through a retail provider after taking a lump sum, this route is likely to be unattractive due to the higher tax liability that it would incur.

The Swiss system is a particularly interesting test case for retiree behavior regarding how to spend their assets in retirement. Annuities are available with minimum friction from the same retirement plan at an attractive, regulated price, and retirees can choose whether to annuitize all or only part of their assets. About 42% of retirees annuitize all their assets, compared with 45% who opt for a full lump sum, with the remainder choosing a combination of the two. A closer look reveals that about half of retirees above the 20th wealth percentile choose to annuitize all their retirement savings, with a sharp drop off particularly in the lowest wealth percentiles.<sup>226</sup> This is consistent with expectations, as the lowest wealth groups are unlikely to have enough assets to generate meaningful income compared to the more generous replacement rate that they receive from the government pension and other benefits.

In common with all other countries, the Swiss pension system is currently facing pressure due to the aging population. The first pillar, which relies on the contributions of the working population to fund current retirees, is under financial strain. Likewise, there is pressure to adjust the regulated annuity conversion rate in response to lower interest rates and longer life expectancies.<sup>227</sup> As a result, there is ongoing political debate about potential reforms. These include adjustments to contribution rates, retirement age, and benefit structures. However, because changes to the first pillar must often be approved by public referendum, progress can be slow and politically sensitive.<sup>228</sup>

226 Piera Bello, Agar Brugiavini, and Vincenzo Galasso, *Journal of Risk and Insurance*, "Annuity puzzle: Evidence from a Swiss pension fund," May 22, 2024, <https://doi.org/10.1111/jori.12473>.

227 <https://www.swissinfo.ch/eng/swiss-politics/six-lessons-from-swiss-voters-rejection-of-occupational-pension-reform/87594961>.

228 <https://www.swissinfo.ch/eng/swiss-voters-shoot-down-governments-pension-fund-reform/87594484>.

## COUNTRY PROFILE: SWITZERLAND

## Key metrics: Switzerland

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Contribution rate</b> Mandatory contributions to occupational pension: Employee: 10.6%, Employer: 10.6% <sup>229</sup>	<b>Government spending on retirement benefits</b> State pension provides 21.2% replacement rate for average income earner <sup>230</sup>	<b>Retirement coverage</b> Occupational plans cover 78.8% of working population <sup>231</sup>	<b>Asset allocation of funded retirement system</b> Equities: 31% Bills and bonds: 27% Cash and deposits: 4% Other: 38% <sup>232</sup> (May not add up to 100% due to overlap and/or missing categories.)
<b>Net replacement rate from workplace plan</b> 45.3% net replacement rate for average income earner <sup>233</sup>	<b>Retirement age and duration</b> Effective retirement age: 64.6 (men), 64.0 (women) Expected years in retirement: 20.7 (men), 23.8 (women) <sup>234</sup>	<b>Net income replacement rate for low earner</b> 56.5% net replacement rate for individual earning half of average income level <sup>235</sup>	<b>Choice of investment allocation</b> Employer chooses provider and investment options within industry pension funds

229 PAAG, table 8.1.

230 OECD Country profile.

231 PAAG, table 9.2.

232 OECD Pension markets in Focus 2024.

233 OECD Country profile.

234 PAAG, table 6.15.

235 OECD Country profile.

## COUNTRY PROFILE: SWITZERLAND

## Key metrics: Switzerland (continued)

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Gross replacement rate from government plan</b> 21.2% replacement rate from state pension <sup>236</sup>	<b>Old age to working population</b> 2022: 31% <sup>237</sup>	<b>How access to workplace plan is determined</b> Mandatory participation for employees earning above minimum threshold; employer chooses provider	<b>Access to retirement savings</b> Employees can choose between an annuity and a full or partial lump sum at retirement
<b>Funded retirement assets/GDP</b> 159.8% private retirement assets <sup>238</sup>	<b>Indexation of pensions formula</b> Regulator sets annuity conversion coefficient	<b>Uptake of guaranteed income beyond state pension</b> About 50% of employees select a full or partial annuity from the occupational plan <sup>239</sup>	<b>Availability of guaranteed income in workplace plans</b> Industry pension funds provide income annuities as primary decumulation option

236 PAAG, table 4.2.

237 OECD Country profile.

238 OECD Pension markets in Focus 2024.

239 Piera Bello, Agar Brugiavini, and Vincenzo Galasso, *Journal of Risk and Insurance*, "Annuity puzzle: Evidence from a Swiss pension fund," May 22, 2024, <https://doi.org/10.1111/jori.12473>.



## COUNTRY PROFILE

# United Kingdom

## Background

Prior to 2012, workplace savings in the United Kingdom were voluntary. As a result, fewer than half of the private sector workforce had access to a workplace retirement plan, and their only source of income in retirement was the flat-rate state pension. Young workers and those on low incomes or working for small employers were particularly unlikely to have a workplace plan.

The auto-enrollment mandate was rolled out starting in 2012.<sup>240</sup> Under the mandate, all employers are required to automatically enroll their employees in a qualified workplace plan, and if the employee remains within the plan, they must make an employer contribution. Employees have the right to opt out of the plan, but if they do so they also forfeit the employer contributions. The mandate was introduced over time, starting with the largest employers and extending to the smallest employers in 2016. Likewise, the required contribution rate started at 1% for employer and employee, rising eventually to its current level of 5% for the employee and 3% for the employer. While this has improved the adequacy problem, for many workers the combined 8% mandatory contribution level is still likely to be too low.

The mandate has been extremely successful at expanding coverage; 86% of private sector employees are now saving in a workplace retirement plan, and the gaps between the different groups have significantly diminished.<sup>241</sup> Opt-out rates among employees have been very low in all categories, and surveys have shown that even the smallest employers have found the mandate easy to comply with.<sup>242</sup>

Initially, participants were required to annuitize part of their accumulated savings by purchasing an annuity from an insurance company. Since the pension freedoms were introduced in 2015 there is no longer a requirement to annuitize, and drawdown is the most common option selected by retirees. Despite the fact that the government's Pension Wise service offers free guidance for people approaching retirement, many people are still uncertain about their options at retirement and lack confidence in their ability to manage their retirement income themselves.<sup>243</sup>

### KEY TAKEAWAYS

- When systematically enforced and implemented, automatic enrollment can be extremely successful at expanding retirement plan coverage.
- Systems where multiple employers use the same retirement plan (United Kingdom master trust, Australian super, Dutch industry funds) can be very effective at reducing the burden on the employer and making high-quality plans available to all employees, regardless of income level.
- Participants continue to struggle with how to use their funds in retirement as individual choice systems do not offer automatic pathways for retirement income. The UK is actively exploring hybrid features such as private assets and Collective Defined Contribution plans.

240 Department for Work and Pensions, "Automatic enrolment into a workplace pension—key facts" <https://assets.publishing.service.gov.uk/media/5a82bfa7e5274a2e87dc2c88/auto-key-facts-enrolment-booklet.pdf#:~:text=Starting%20from%20October%202012%2C%20up%20to%2011,for%20retirement%20arranged%20by%20an%20individual's%20employer.>

241 Department for Work and Pensions, "Official statistics on workplace pension participation and saving trends of eligible employees: 2009–2021," <https://www.gov.uk/government/statistics/workplace-pension-participation-and-savings-trends-2009-to-2022/workplace-pension-participation-and-savings-trends-of-eligible-employees-2009-to-2022>.

242 Catherine Reilly, "Smart Strongly Supports Auto IRA/Plan Legislation to Enhance Retirement Security," Sept. 7, 2021, <https://www.smartretire.com/news-and-media/smart-announces-support-of-auto-ira-plan-legislation-shares-smart-survey-results-of-over-800-small-businesses>.

243 Nick Reeve, "Pension freedoms 10 years on: A progress report," Pensions Expert, Mar. 20, 2024, <https://www.pensions-expert.com/Law-Regulation/Pension-freedoms-10-years-on-A-progress-report?ct=true>.

## COUNTRY PROFILE: UNITED KINGDOM

## Plans consolidating as master trusts continue strong growth

The success of auto-enrollment in the United Kingdom has gone hand in hand with the expansion of master trusts. Master trusts are the United Kingdom equivalent of pooled employer plans (PEPs), where multiple unaffiliated employers can use the same retirement plan. This offers employers fiduciary outsourcing and economies of scale.

The United Kingdom established the National Employment Savings Trust (NEST) to ensure that even the smallest employers would be able to access an affordable, high-quality plan for their employees. In addition to NEST, which with more than 12 million members and £36.8 billion assets under management is the largest master trust,<sup>244</sup> there are also a wide range of privately funded trusts catering to different employer segments. Some, like the People's Pension or Smart Pension, cater to the small, relatively unsophisticated employers similar to the clientele of NEST. Others, such as the AON or LifeSight master trusts, offer more customized solutions for employers with higher-earning employees. Employers can still continue to offer their own plans, but increasingly even the largest employers are embracing the convenience of master trusts and their share of the market is expected to continue to grow at the same time as the master trusts themselves consolidate and become bigger.<sup>245</sup> As the master trusts have become the fastest-growing sector of the retirement market, regulators have also strengthened the regulatory and oversight regime for them, starting with an authorization process and a value-for-money framework.<sup>246</sup>



### Expanding the use of Collective Defined Contribution plans

Hybrid plans that target a level of lifetime income and are paid directly from the plan.

## Public sector plays active role in developing framework for retirement savings provision

The public sector continues to seek to improve the retirement savings framework. As in the United States, the employer chooses which retirement plan provider to use. As a result, employees who change jobs frequently may end up with multiple small savings pots with different providers. The government has various initiatives under way to address the problems related to small “stranded” pots. The “pensions dashboard” will enable users to view all their retirement plan information online through a single secure portal.<sup>247</sup> All providers and retirement plans have to connect to the dashboard hub by October 2026. Another initiative is exploring how to automate pot consolidation, either by using a default consolidator model where some providers could act as consolidators for pots under £1,000,<sup>248</sup> or by implementing a pot follows member model whereby pots under a certain level would automatically follow employees to their new plan when they change jobs.<sup>249</sup>

244 <https://www.nestpensions.org.uk/schemeweb/nest/employers/why-choose-nest/award-winning-investments.html>.

245 <https://www.gov.uk/government/publications/trends-in-the-defined-contribution-trust-based-pensions-market>.

246 Department for Work and Pensions, “Evolving the regulatory approach to master trusts,” Nov. 22, 2023, <https://www.gov.uk/government/publications/evolving-the-regulatory-approach-to-master-trusts>.

247 <https://www.pensionsdashboardsprogramme.org.uk/>.

248 <https://www.pensionsage.com/pa/DWP-proposes-default-consolidator-model-to-tackle-small-pots-issue.php>.

249 <https://www.gov.uk/government/consultations/ending-the-proliferation-of-deferred-small-pension-pots>.

## COUNTRY PROFILE: UNITED KINGDOM

## Regulators aim to increase access to lifetime income and private assets

In addition to addressing the problems related to small pots, the government has recently solicited input from industry stakeholders on the feasibility of expanding the use of Collective Defined Contribution (CDC) plans. Very generally, these are hybrid plans that target (but do not guarantee) a certain level of annuity payout for participants that would come directly from the plan. The Royal Mail launched the first CDC plan in October 2024.<sup>250</sup>

The Mansion House<sup>251</sup> reform proposals also seek to increase the allocation of retirement plans to unlisted investments and to U.K.-based companies. Seventeen of the largest workplace pension providers in the UK have expressed their intent to invest at least 10% of their assets in private markets by 2030 with 5% in the UK.<sup>252</sup>



250 Investments and Pensions Europe, "UK government launches consultation on multi-employer CDC schemes," Oct. 8, 2024.

251 <https://www.gov.uk/government/collections/mansion-house-2023>.

252 PensionsAge, "Mansion House Accord revealed; pension providers to up private market investments," May 13, 2025.

## COUNTRY PROFILE: UNITED KINGDOM

## Key metrics: United Kingdom

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Contribution rate</b> Mandatory national Insurance contribution: <sup>253</sup> Employee: 5.7%, Employer: 11% (varies, calculation based on average earnings) Workplace plan: Employee: 5%, Employer: 3%	<b>Government spending on retirement benefits</b> 2020–23: 7.2% of GDP (11.5% of total government spending) <sup>254</sup> 2040: 7.5% <sup>255</sup>	<b>Retirement coverage</b> 88% overall coverage (86% private, 93% public) <sup>256</sup> Mandate does not apply to workers under 22 or who earn under £10,000 per year. Self-employed also exempt. <sup>257</sup>	<b>Asset allocation of funded retirement system</b> Equities: 28.5% Bonds: 35.1% Cash: 2.6% Other: 33.7% Abroad: 28.0% <sup>258</sup> (May not add up to 100% due to overlap and/or missing categories.)
<b>Net replacement rate from workplace plan</b> 26% replacement rate for average income earner <sup>259</sup>	<b>Retirement age and duration</b> Effective retirement age: <sup>260</sup> 63.2 (men), 62.6 (women) Expected years in retirement: <sup>261</sup> 20.9 (men), 23.5 (women)	<b>Net income replacement rate for low earner</b> 74.9% net replacement rate for individual earning half of average income level <sup>262</sup>	<b>Choice of investment allocation</b> Most platforms use life cycle funds, i.e., portfolios of underlying funds that change their asset allocation over time.

253 <https://www.gov.uk/national-insurance-rates-letters>, author calculations. National insurance contributions also used to finance NHS.

254 PAAG 2023, table 8.3.

255 PAAG 2023, table 8.4.

256 Department for Work and Pensions, Official Statistics on workplace pension participation and saving trends of eligible employees: 2009–2021.

257 <https://www.gov.uk/workplace-pensions/joining-a-workplace-pension#:~:text=Your%20employer%20must%20automatically%20enrol,least%20%2%A310%2C000%20per%20year.>

258 OECD Pension Markets in Focus 2023, tables B8, B9, B10, B11, B12.

259 OECD UK Country Profile.

260 PAAG 2023, table 6.13.

261 PAAG 2023, table 6.15.

262 PAAG 2023, table 4.5.

## COUNTRY PROFILE: UNITED KINGDOM

## Key metrics: United Kingdom (continued)

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<p><b>Gross replacement rate from government plan</b></p> <p>21.7% replacement rate from guaranteed income for average earner (State Pension)<sup>263</sup></p>	<p><b>Old age to working population</b></p> <p>2022: 33.2, 2052: 49.1<sup>264</sup></p>	<p><b>How access to workplace plan is determined</b></p> <p>Employer must automatically enroll all eligible employees, who can opt out if they wish. The employer chooses which savings platform to use. Master Trusts steadily increasing their market share at the expense of single employer trusts.</p>	<p><b>Access to retirement savings</b></p> <p>Savers can only access their savings after age 55 except under very limited circumstances (e.g., terminal illness). 25% tax-free cash allowance. No required annual minimum withdrawal amounts.</p>
<p><b>Funded retirement assets/GDP</b></p> <p>85.2%/\$2,561,509 mil. private, 2.9%/\$99,220 mil. public<sup>265</sup></p>	<p><b>Indexation of pensions formula</b></p> <p>State pension currently increases by whichever is the higher of the CPI, average earnings growth or 2.5% (the triple lock).<sup>266</sup></p>	<p><b>Uptake of guaranteed income beyond state pension</b></p> <p>8% of pots accessed were used to buy an annuity<sup>267</sup></p>	<p><b>Availability of guaranteed income in workplace plans</b></p> <p>Since the pension freedoms were introduced there is no longer a requirement to purchase an annuity.<sup>268</sup> Annuities mostly provided by external insurance companies.</p>

263 PAAG 2023, table 4.2.

264 PAAG 2023, table 6.2.

265 PAAG 2023, table 9.2.

266 <https://www.profilepensions.co.uk/guides/what-is-the-state-pension-a-future-users-guide#:~:text=The%20state%20pension%20is%20index%2Dlinked,-Many%20of%20us&text=This%20means%20that%2C%20if%20the,known%20as%20a%20Triple%20Lock.>

267 <https://www.deloitte.com/uk/en/Industries/financial-services/blogs/developing-a-dc-pensions-growth-strategy-for-life-insurers-designing.html>.

268 <https://www.abi.org.uk/news/news-articles/2024/2/2023-sets-new-post-pension-freedoms-record-for-annuity-sales.>



## COUNTRY PROFILE

# United States

## Background

The United States retirement system consists of the mandatory Social Security retirement plan, and voluntary workplace plans and individual retirement accounts. Social Security is financed on a PAYG basis through employer and employee contributions. Both contributions and benefits are capped.<sup>269</sup> Benefits are paid as an inflation-protected lifetime income stream using a progressive formula that provides low-income earners with a higher replacement rate, although in reality workers who also have a workplace plan will have a higher replacement rate.

Workplace plan provision is voluntary for employers, although an increasing number of states have introduced their own mandates for employers without a retirement plan to automatically enroll employees in an individual retirement account.<sup>270</sup> Employees always have the right to opt out. Virtually all private sector workplace plans are now DC, but the public sector still often provides DB plans. Despite the fact that only about half of private sector workers have access to a retirement plan through their employer, U.S. participants have accumulated substantial retirement assets through workplace or individual retirement savings. Because these assets are not evenly spread across participants they are not included in the replacement rate calculations at the beginning of this report. As a result, the overall replacement rate in the United States appears to be at the lower end of the countries in this study.

## Voluntary system offers flexibility and choices at some cost of fairness

The U.S. workplace retirement system offers a high degree of flexibility and choice. In most cases, employers can choose whether to offer a plan and can also choose the amount of a matching contribution, if any. Employees can choose whether to participate, how much to contribute and what to invest their contributions. Participants in the United States also have more flexibility to access their savings before retirement through plan loans or hardship withdrawals. This ability to access the money can be particularly

### KEY TAKEAWAYS

- Defaults are critical for an effective retirement saving system: a voluntary system leads to low coverage and sub-optimal annuitization.
- The provision of plans by individual employers leads to a patchwork system. Large employers typically offer very low-cost plans with professional oversight. The situation among smaller employers is far more heterogeneous, and small employer plans are typically more expensive.
- The United States has very clear rules governing the fiduciary oversight of investment options.

269 <https://www.ssa.gov/oact/cola/cbb.html>.

270 <https://cri.georgetown.edu/a-conversation-on-state-based-retirement-programs/>.

**COUNTRY PROFILE: UNITED STATES**

helpful if it gives lower-income participants the confidence to save and allows them to avoid more punitive sources of emergency funds, such as credit card debt or payday loans.<sup>271</sup> However, it also allows leakage from the system. Legislators have recently promoted emergency savings accounts to help prevent the need for participants to access their retirement savings to pay for unforeseen expenses.

The voluntary, employer-centric nature of the workplace system also leads to variation in the quality of workplace retirement plans. Most large employers automatically enroll employees in a retirement plan with a matching employer contribution as part of the standard benefits package. These plans typically have very low costs and stringent professional oversight. However, small employers are far less likely to offer a plan, and when they do offer one, these tend to be more expensive than the large employer plans.<sup>272</sup> Recent legislative initiatives, such as requiring all new plans to automatically enroll employees, the availability of pooled employer plans to allow multiple employers to use the same plan, and efforts to introduce a requirement for all employers to offer a plan, will help to increase fairness in retirement plan access.

**Transparency and ownership**

The United States has a clear system for fiduciary oversight and individual ownership of DC retirement assets. The plan sponsor is responsible for selecting and monitoring the investment options in the plan menu. Most plans have clear choice architecture, with a default option if the participant does not make an active choice, an additional range of core funds that participants can choose from if they wish, and sometimes a brokerage window allowing a wider range of external funds. Participants control their own assets, and unless they deliberately purchase insurance products, there is no risk sharing between them. On the positive side, this means that the system is very transparent, and plan sponsors cannot subsidize one set of participants at the expense of others. On the downside, the low rate of annuitization at retirement implies that many participants are missing out on risk sharing that could potentially boost their income in retirement.

**The next stage is defaults for decumulation integrated income products**

Policymakers have already made efforts to expand retirement plan coverage, although a federal mandate for employers to offer a plan has yet to gain approval. They have also tried to remove the barriers to annuitization by reducing the fiduciary burden on plan sponsors for selecting an annuity product. Several asset managers have recently launched default investment products that can allow retirees to convert all or part of the accumulated balance into guaranteed income at retirement.

So far, the uptake of these products has been low, partly because many have only recently launched but also reflecting the universal reluctance of participants to voluntarily annuitize their assets. For low-income earners who already receive substantial annuitized income through Social Security, this is probably rational. To increase annuitization rates among other groups who would probably benefit from annuitization, it will be important to present income as the primary option at retirement, while allowing participants the ability to opt out if they so wish. To make this choice more valuable to participants, it will also be important to make it easier for participants to consolidate their retirement savings into a single account so the income is meaningful.

**Increasing annuitization rates**

Present income as the primary option at retirement	Allow participants to opt out
--	-------------------------------



271 John Beshears, James J. Choi, David Laibson and Brigitte C. Madrian, “The Impact of 401(k) Loans on Saving”, NBER, Sept. 29, 2010.

272 Olivia Mitchell, Catherine Reilly and John A. Turner, “The pros and cons of remaining in a 401(k) plan after retirement” *Financial Services Review* 31:1 (2023), 1–21.

## COUNTRY PROFILE: UNITED STATES

## Key metrics: United States

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Contribution rate</b> Mandatory contributions to Social Security: <sup>273</sup> Employee: 5.3%, Employer: 5.3% Workplace plans: Default contribution rates and employer matching contributions vary widely.	<b>Government spending on retirement benefits</b> 2020–23: 5.2% of GDP (18.6% of total government spending) <sup>274</sup> 2040: 6.0% <sup>275</sup>	<b>Retirement coverage</b> Social Security covers most workers. Workplace plans are voluntary; overall, 54% of workers have access to a plan through their employer. <sup>276</sup>	<b>Asset allocation of funded retirement system</b> Equities: 33.6% Bonds: 21.8% Cash: 2.2% Other: 12.9% Abroad: NA <sup>277</sup> (May not add up to 100% due to overlap and/or missing categories.)
<b>Net replacement rate from workplace plan</b> 37.2% (voluntary plans only available to part of the population; this figure also includes DB income) <sup>278</sup>	<b>Retirement age and duration</b> Effective retirement age: <sup>279</sup> 65.2 (men), 65.3 (women) Expected years in retirement: <sup>280</sup> 18.0 (men), 20.6 (women)	<b>Net income replacement rate for low earner</b> 60.6% net replacement rate for individual earning half of average income level <sup>281</sup>	<b>Choice of investment allocation</b> TDFs widely used as default in DC plans

273 PAAG 2023, table 8.1.

274 PAAG 2023, table 8.3.

275 PAAG 2023, table 8.4.

276 CRI Georgetown, Benefits of Universal Access, Figure ES1.

277 OECD Pension Markets in Focus 2023, tables B8, B9, B10, B11, B12.

278 PAAG 2023, table 4.5.

279 PAAG 2023, table 6.13.

280 PAAG 2023, table 6.15.

281 PAAG 2023, table 4.5.

## COUNTRY PROFILE: UNITED STATES

## Key metrics: United States (continued)

 <b>Adequacy</b>	 <b>Financial sustainability</b>	 <b>Fairness</b>	 <b>Plan design</b>
<b>Gross replacement rate from government plan</b> 39.1% replacement rate from Social Security <sup>282</sup>	<b>Old age to working population</b> 2022: 29.4, 2052: 43.4 <sup>283</sup>	<b>How access to workplace plan is determined</b> The retirement plan is sponsored by the employer, which selects the available range of funds. Small employer plans tend to be more expensive than larger ones.	<b>Access to retirement savings</b> Workers of any age have access to hardship withdrawals and plan loans (depending on their plan features). After age 73 participants are required to withdraw a minimum amount each year.
<b>Funded retirement assets/GDP</b> 137.5%/ \$35,016,907 mil. private, 10.7%/ \$2,711,899 mil. public <sup>284</sup>	<b>Indexation of pensions formula</b> Social Security payments are indexed to the CPI-W (CPI for urban workers and wage earners).	<b>Uptake of guaranteed income beyond state pension</b> 2.4% of retirement assets held in annuities <sup>285</sup>	<b>Availability of guaranteed income in workplace plans</b> Some 401(k) plans offer the ability to purchase an annuity as part of the plan menu, either as a standalone or integrated into a TDF. 403(b) plans commonly offer annuities as a decumulation option.

282 PAAG 2023, table 4.2.

283 PAAG 2023, table 6.2.

284 PAAG 2023, table 9.2.

285 <https://www.statista.com/statistics/940498/assets-retirement-plans-by-type-usa/>.

## Topics for further investigation

**In this report, we lay out a vision for the retirement plan of the future in the United States context.**

**We have also uncovered several interesting topics that require further investigation:**

- The countries that provide high levels of lifetime income in retirement offer payouts that include some automatic adjustment mechanisms based on life expectancy or the financial performance of the system. What could flexible income guarantees look like in the United States, for DC, DB or Social Security? What would be the process for implementing these?
- Switzerland and Chile have achieved high annuitization rates without a mandate by incorporating the choice on annuitization into the basic framework for accessing retirement savings. What would an “opt out” income solution for 401(k) plans look like, and how could this be implemented?
- Defined contribution retirement plans will continue to grow as a share of the retirement market. Financial literacy continues to be a challenge: many retirees underestimate their expected longevity and struggle to understand Social Security and Medicare. How can we improve financial literacy to help retirees make better decisions?

**We also have more questions about global best practices to investigate in future studies:**

- In addition to longevity, health is one of the biggest uncertainties in retirement. What successful approaches have countries adopted to fund healthcare in retirement, and what can we learn from them?
- What can systems with very low levels of funded retirement assets, such as France, Germany, Spain, or Italy, do to improve adequacy, financial sustainability and promote risk sharing?
- What challenges are faced by developing countries, such as China or India, and in what way are these similar or different to developed countries? Have they been able to leapfrog directly to new technologies or distribution models? Are there helpful lessons for developed countries, particularly for how to reach lower-income or uncovered segments of the working population?
- Even in countries with mandates, the self-employed are often not covered. What are effective ways of delivering retirement plans to the self-employed, and which countries have done this successfully?

## About the author



**Catherine Reilly** is head of applied research and activation at the TIAA Institute. She is an investment and retirement expert, with a focus on retirement income, global retirement systems, and emerging financial technologies. She has served as global head of research for the Defined Contribution team at State Street Global Advisors; chief economist for Pohjola Asset Management in Finland; and management consultant at McKinsey & Company. Most recently, Catherine was employed at Smart, a leading provider of global retirement technology.

She earned a master's in public administration from Harvard University and an MSc in economics from Aalto University in Finland. She is also a CFA charterholder.

## Contributors



**Surya Kolluri** leads the TIAA Institute and focuses his research efforts on retirement and healthy aging. The Institute, now celebrating its 25th anniversary, conducts cutting-edge research in the areas of financial and longevity literacy, lifetime income, retirement plan design and behavioral finance for higher education and the broader nonprofit sector.

Surya sits on the board of the Wharton Pension Research Council, the advisory councils of Georgetown Center for Retirement Initiatives, the Retirement Research Center of the Defined Contribution Institutional Investment Association (DCIIA) and the U.S. Alzheimer's Association (MA/NH Chapter). In 2021, Surya received The President's Volunteer Service Award via AmeriCorps for his commitment to strengthening communities.

Surya holds an MBA from The Wharton School at the University of Pennsylvania and a master's in mechanical engineering from Drexel University. He lives with his family in Brookline, Massachusetts.



**David Richardson** is managing director and head of research at the TIAA Institute. Before joining TIAA, he served as senior economist for public finance at the White House Council of Economic Advisers and held the New York Life Chair in Risk Management and Insurance at Georgia State University. Previously, he worked as a financial economist in the Office of Tax Policy at the U.S. Treasury and was an assistant professor in the Department of Economics at Davidson College.

David's research interests include public pensions, employer retirement benefit plans and household financial security. He has served as a research fellow for the China Center for Insurance and Social Security Research at Peking University, a research fellow for the Center for Risk Management Research and a research associate at the Andrew Young School of Policy Studies at Georgia State University. He also is a member of the Pension Research Council Advisory Board, the American Economic Association, the American Risk and Insurance Association and the National Tax Association.

He earned an MA and a PhD in economics from Boston College, and a BBA from the University of Georgia.



## About the TIAA Institute

The TIAA Institute helps advance the ways individuals and institutions plan for financial security and organizational effectiveness. The Institute conducts in-depth research, provides access to a network of thought leaders, and enables those it serves to anticipate trends, plan future strategies, and maximize opportunities for success.

**To learn more, visit [tiaainstitute.org](http://tiaainstitute.org).**

---

TIAA Institute is a division of Teachers Insurance and Annuity Association of America (TIAA), New York, NY.  
©2025 Teachers Insurance and Annuity Association of America-College Retirement Equities Fund, New York, NY

4947894