Pension Systems Are Cracking—Here's How to Fix Them

January 2026

By Sam Karita, Tomoki Isogai, Csaba Bakos, and Mark Wiseman

BCG | BCG HENDERSON INSTITUTE

Demographics are rewriting the balance sheets of developed countries around the world—and pushing traditional pension systems beyond their limits.

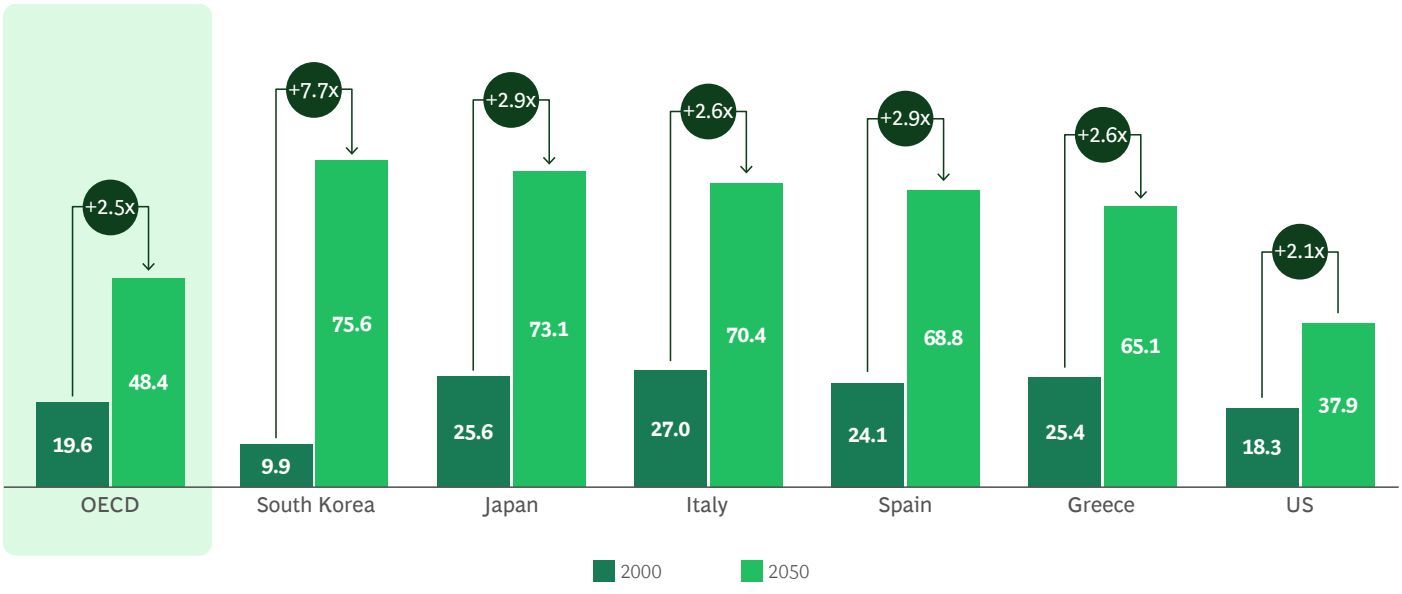
The pressure is particularly evident today in OECD countries. For these nations, the average ratio of older citizens (65 and older) to younger citizens (ages 15 to 64) will increase on average 2.5 times by 2050 from 2000 levels (**see Exhibit 1**). That translates into a growing economic burden on the working-age population, as those younger workers will need to contribute an increasing share of their income to fund pensions. Total pension expenditures as a share of combined GDP for 31 of the 38 OECD nations is projected to hit 10.3% by 2060, up from an average of 8.9% for the period 2020 through 2023.[1]

Some countries have taken action to confront the challenge. Sweden, Denmark, and the UK, among others, have reformed their pensions systems over the last 20 years and put them on a firmer financial footing. Still, many of the changes have come with trade-offs, such as benefit reductions that disproportionately impact low-income groups.

EXHIBIT 1

Ratio of Older Citizens Versus Younger Workers in OECD Countries Will Surge in the Decades Ahead

Top 5 OECD countries with highest projected ratio of people aged 65 and over versus those 15–64 years old, plus US



Sources: United Nations, Department of Economic and Social Affairs, Population Division (2024); BCG Henderson Institute analysis.

1. The data for this analysis was not available for seven OECD countries.

Ultimately, pension reforms can be designed with an eye toward the three elements of the pension trilemma: balancing financial sustainability, adequacy of benefits for retirees, and equity among various citizen groups. So how can developed nations—including those in Western Europe and the Nordics, known for comprehensive welfare systems—remake their pension frameworks to meet the needs of their aging societies? Our in-depth study of the pension challenge reveals that governments have an opportunity to act in two primary areas:

- **Rethink design.** Governments can redesign pensions for long-term viability by incentivizing plans under which future benefits are pre-funded; creating automatic triggers to drive adjustments that reflect changing conditions; and establishing a safety net to prevent lower-income people from falling into poverty.
- **Drive smart implementation.** Governments can put equal emphasis on effective implementation by ensuring transparent communication about the need for change and a smart strategy for transitioning to the new system. The former is particularly critical: failure to build a dialogue with the public about the urgency of reform and to clearly communicate how the changes will impact them directly can derail the best-laid plans.

Pension reform is an inherently complex and politically difficult undertaking. The French government's decision in October 2025 to postpone pension reform (including an increase in retirement age) until after the 2027 election makes this plain. Because the costs of inaction—and any benefits of reform—are not always immediately felt, inertia often prevails. However, delaying reforms to avoid public controversy only magnifies fiscal and political risks. Countries that develop thoughtful policy designs and robust strategies for implementation will be far better positioned to meet this urgent challenge.

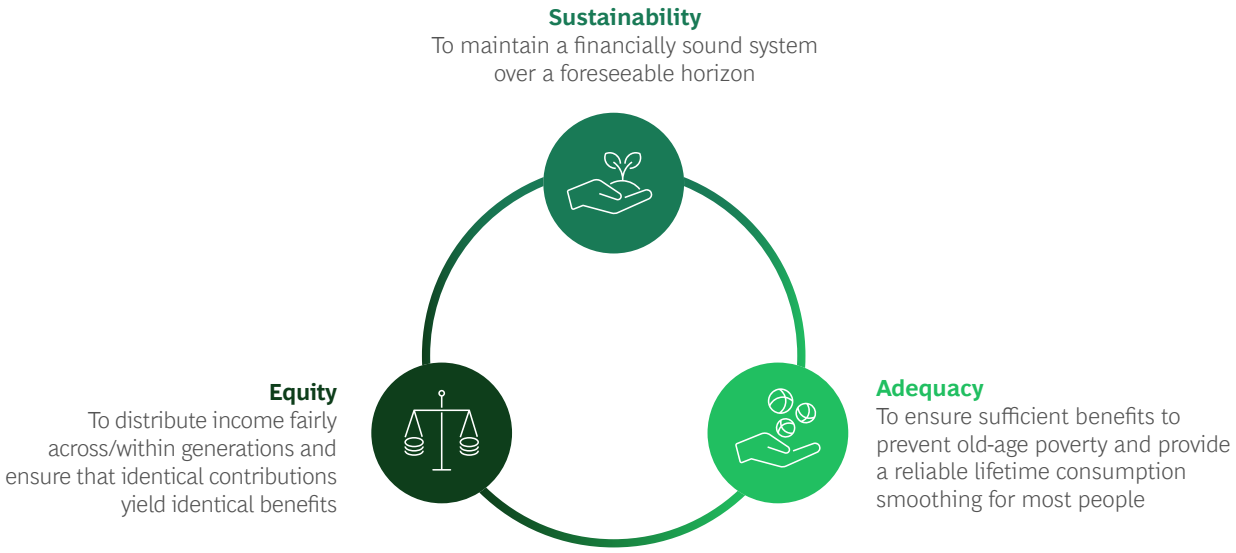
Components of a Sound Pension System

The demographic pressure on pensions today stems from multiple factors, notably increased longevity, decreasing birth rates, and slowing immigration. Reform can strike the right balance among the objectives of the pension trilemma (**see Exhibit 2**):

- **Sustainability.** Maintaining a financially sound system over the foreseeable time horizon.
- **Adequacy.** Ensuring benefits are sufficient to provide income stability throughout people's retirement and prevent older citizens from slipping into poverty.
- **Equity.** Various forms of equity—the fair distribution of costs, benefits, and risks among individuals or groups—are particularly relevant to pensions. Intergenerational equity is fairness regardless of generational cohort. Redistributive equity refers to fairness across different levels of income. Actuarial equity refers to whether benefits reflect the full level of retirees' lifetime contributions. In some cases, there are direct connections between these types of equity. For example, steps to increase redistributive equity can decrease actuarial equity.

EXHIBIT 2

The Pension Trilemma: Systems Need to Balance Three Objectives



Source: BCG Henderson Institute, based on World Bank Pension Systems and Reform Conceptual Framework, 2008.

While financial unsustainability is typically the immediate challenge, safeguarding adequacy and equity levels is equally important. And although pension redesigns have typically prioritized only one or two of these objectives, the most successful will strike a balance between all three and ensure that every retiree is provided with a basic standard of living to lead a dignified life.

Two Dimensions of Pension Design. Pensions systems are defined along two primary dimensions—financing method and benefit design.

Financing methods fall into two categories:

- **Pay as You Go (PAYG).** Current contributions pay for existing retiree benefits. The separation of contributors and beneficiaries makes PAYG systems vulnerable to aging demographics, undermining sustainability over the longer term. They also tend to create inequity, with future generations likely to receive less than earlier cohorts and, in some cases, receiving less in benefits than what they paid in.
- **Funded.** Funds are invested in advance and used to pay future retiree benefits. Funded schemes, in which people contribute the money that will subsidize their own benefits, reinforce both sustainability and equity.

Benefit design also falls into two categories:

- **Defined Benefit (DB).** Payouts are fixed. The provider (employer or government) carries both investment risk (tied to how investments perform over time) and longevity risks (related to whether recipients live longer than expected). These risks can generate large unfunded liabilities and threaten sustainability.
- **Defined Contribution (DC).** Payouts are not fixed but contributions (made by employees, employers, or both) are. Because benefits are not guaranteed, investment risk and longevity risk (whether someone outlives their retirement savings) are borne by participants. In addition, given that future payouts are fully funded by individual savings rather than promises of future payments, DC schemes are generally more financially sustainable and pose less fiscal risk to future taxpayers than DB schemes.

These dimensions yield four distinct types of pensions. In countries with aging populations, meeting the three objectives outlined above carries different implications. **(See Exhibit 3.)**

EXHIBIT 3

Four Primary Pension Plan Types Come with Different Implications in Aging Societies

Funding Mechanism	Benefit Design: Defined benefit (DB)	Benefit Design: Defined contribution (DC)
Pay as you go (PAYG)	**PAYG DB** Current workers' contributions fund retirees; benefits based on formula ● Sustainability: Low ● Adequacy: High ● Equity: Low intergenerational and actuarial, high redistributive	**PAYG DC** Current workers' contributions fund retirees; benefits based on lifetime contributions and notional return ● Sustainability: Mid ● Adequacy: Mid (dependent on contributions and market) ● Equity: Low intergenerational and redistributive, mid actuarial
Funded	**Funded DB** Pension plan backed by invested assets where benefits are predetermined by formula ● Sustainability: Mid ● Adequacy: Mid (dependent on contributions and formula) ● Equity: Low intergenerational and redistributive; mid actuarial	**Funded DC** Contributions are invested, and benefits depend on the accumulated savings and investment returns ● Sustainability: High ● Adequacy: Mid (dependent on contributions and market) ● Equity: High intergenerational and actuarial; low redistributive

Source: BCG Henderson Institute analysis.

The Three Pillars of Country Pension Systems. Most countries have multiple plans, or "pillars," within their system. Each pillar often differs based on funding mechanism and benefit design. The three most common are:

- **Public.** This pillar provides mandatory coverage. It is typically a PAYG structure with either DB or DC benefit design. Countries sometimes have separate mechanisms that aim to provide minimum income protection.[2]
- **Employer.** This pillar comprises employer- or industry-sponsored plans. Depending on the country, participation can be mandatory, quasi-mandatory (for example, through auto-enrollment), or voluntary. These plans, sometimes known as "occupational" plans, are typically funded with a DB, DC, or hybrid benefit design.
- **Individual.** The individual, or private, pillar includes additional retirement savings and is usually a flexible funded DC plan. As with the employer pillar, participation can be mandatory, quasi-mandatory, or voluntary.

A country's mix of pillars and plan types often yields a distinct pension system, with trade-offs between adequacy and fiscal sustainability. **(See the sidebar "How National Pension Systems Stack Up.")**

Building a Balanced Pension System

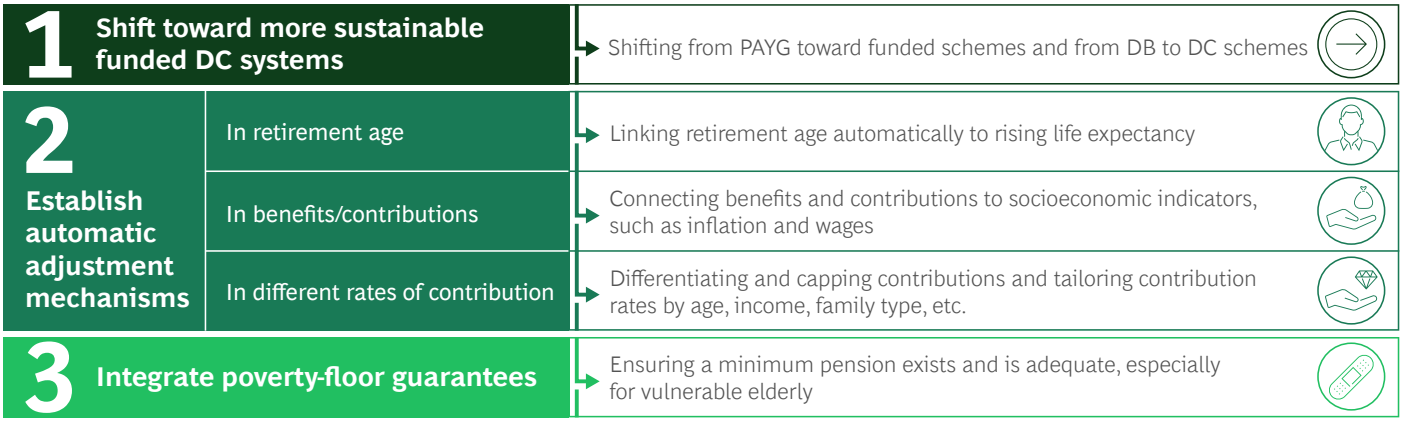
Pension reform success rests on two foundational elements: sound system design and smart implementation. These elements are relevant for both public- and employer-based pensions. For the purposes of this report, we focus primarily on how they can support a robust public pension system.

Rethink System Design

Countries can explore three fundamental changes in the design of their pension system—a shift toward more financially sustainable structures, the establishment of smart automated triggers to adjust contributions and benefits, and the integration of a mechanism that prevents poverty. **(See Exhibit 4)**. As countries design their new systems, they can assess the impact of changes on each objective of the pension trilemma and thus effectively manage trade-offs between those three objectives to create a more balanced system.

EXHIBIT 4

Three Cornerstones of Smart Pension System Design



Source: BCG Henderson Institute analysis.
Note: PAYG = pay as you go; DB = defined benefit; DC = defined contribution.

2. Usually referred to as the "zero pillar" under the World Bank's multi-pillar pension framework.

How National Pension Systems Stack Up

Pension systems may share a common goal: financial security in retirement. But how they design their system to get there varies widely.

We took a deep dive, studying 36 OECD countries plus Singapore Pension.[1] For each country we assessed the mandatory, or "main," pension plans according to four basic design categories. Since PAYG DB is the most common public pension type, we segmented it into two categories based on the ratio of assets in employer and individual pension plans (which tend to be funded plans) to GDP. Our pension design categories exclude funded DB, as it is not present in the mandatory plans of the countries we examined.

We measured each country's main pension plan along two key dimensions: public expenditures for pensions (as a percentage of GDP) and replacement rate (the share of pre-retirement income covered by retirement payouts). The replacement rate calculation reflects the entire retirement system, including public, employer, and individual contributions.

In addition to plotting each country's main pension plan according to those two dimensions, we also plot where the four primary pension types sit in the matrix. **(See the exhibit.)**

What we learned:

- **PAYG DB Plans in Countries Where Employer and Individual Assets Are Limited (<20% of GDP).** These deliver high benefits but at a relatively high cost as a share of GDP. They are highly sensitive to aging populations: countries with higher old-age dependency ratios (ratio of people 65 years old and over to those ages 15 to 64) typically appear in the upper-right section of the chart.

- **PAYG DB Plans in Countries Where Employer and Individual Assets Are Sizeable (>20% of GDP).** Replacement rates vary, as funded assets from employer and individual plans share the financial load. This structure provides resilience against demographic aging.

- **PAYG DC Plans.** Lower average fiscal cost but medium to lower replacement rates, as benefits depend on lifetime contributions and retirement age. Without additional support, risk is shifting to individuals, making adequacy a potential concern.

- **Funded DC plans.** Typically positioned on the chart's left side, indicating lower costs. Replacement rates depend significantly on contribution levels, coverage, fees, investment performance, and system maturity. As with PAYG DC systems, these plans shift adequacy risk to individuals.

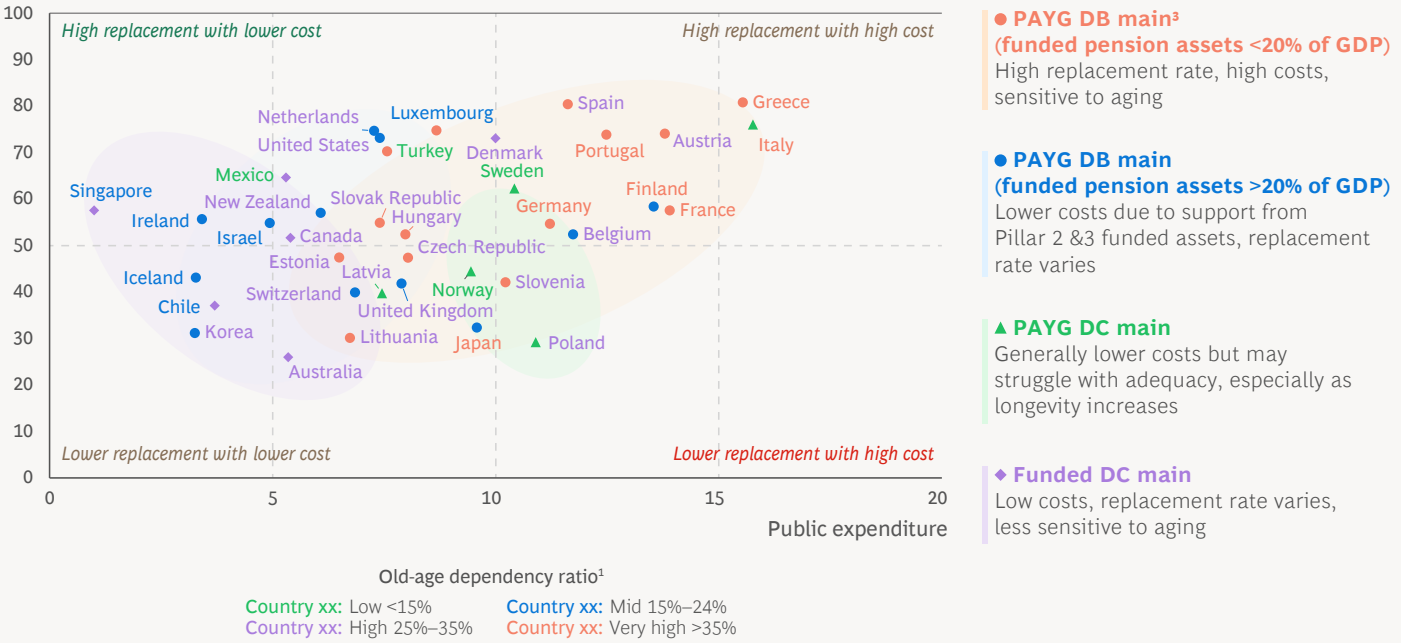
1. We excluded Costa Rica and Colombia from the OECD assessment due to limited data for both nations; Singapore was added to increase the number of funded DC countries in the sample.

Our assessment clearly illustrates how shifting toward funded DC plans within a pension system can significantly reduce the overall cost burden. This perspective, however, does not capture the distribution of retirement income across the population.

In some situations, uneven distribution of assets can lead to adequacy and equity issues for certain groups.

Share of Pre-Retirement Income Provided Through Pensions and Level of Public Expenditure Vary Across Countries

Pension Schemes Comparison



● PAYG DB main³ (funded pension assets <20% of GDP)
High replacement rate, high costs, sensitive to aging

● PAYG DB main (funded pension assets >20% of GDP)
Lower costs due to support from Pillar 2 &3 funded assets, replacement rate varies

▲ PAYG DC main
Generally lower costs but may struggle with adequacy, especially as longevity increases

◆ Funded DC main
Low costs, replacement rate varies, less sensitive to aging

Sources: OECD Pensions at a Glance 2019,2023; OECD Pensions Market in Focus 2024; BCG Henderson Institute analysis.
Note: Replacement rates mainly use 2019 data (2023 where available). 2020–2022 data not included due to COVID-19 impact; figures are OECD theoretical estimates for a full-career worker entering the labor market in the reference year; data includes all OECD counties. except Colombia and Costa Rica due to lack of data. Singapore added for reference.
[1]Old-age dependency ratio represents the ratio between the population at and above 65 years of age and the population within 15 and 64 years of age.
[2]Replacement rates include both public and other pension types.
[3]Main = mandatory retirement scheme, which can be public or private.

Shift toward funded DC plans. Many current models, especially public PAYG DB systems, are financially unsustainable. As population age, contributions from young workers are becoming insufficient amid rapidly expanding payouts to current retirees. That's why it can make sense to shift away from the PAYG DB model.

Reform may not actually involve the elimination of the PAYG DB fund. In some cases, the change may include modification of the existing PAYG DB plan along with the creation of an additional funded DC plan. Sweden, for example, passed a law in 1994 to replace its PAYG DB pension system with a hybrid structure combining both a PAYG DC plan and a funded DC plan (also known as the "premium pension"). The move inspired reforms in Italy, Latvia, Poland, and Norway.

Of course, sometimes a challenging political environment makes moving away from a PAYG DB plan toward a funded DC system all but impossible. In such cases, more modest steps—for example, transitioning to a funded DB or PAYG DC plan—can be a move in the right direction.

Such steps alone may not fully balance the three pension objectives. Funded DB plans, for instance, guarantee benefits regardless of market conditions and therefore safeguard retirement income, though sustainability can remain uncertain. Governments are typically best positioned to offer such plans given the long-time horizon and greater contributor base. PAYG DC plans, meanwhile, offer stronger sustainability than funded DB arrangements, but come with adequacy challenges given their reliance on individual contribution capacity. Complementary mechanisms to ensure minimum benefit levels may be required.

Regardless of the reform implemented, countries can also explore steps to strengthen or expand other existing funded DC schemes, including those offered by employers. The UK has used automatic enrollment to bring 10 million workers into employer-funded DC plans. The average opt-out rate is less than 10%, lower than expected. In the US, meanwhile, the 2022 SECURE 2.0 Act mandates automatic enrollment starting in 2025 for new 401(k) plans (offered by private employers) and 403(b) plans (offered by nonprofit or government employers).

Establish automatic adjustments based on important triggers. Designing the system to automatically reflect certain changes, including related demographics or the economic environment, can reinforce financial sustainability, adequacy, and equity. These automatic triggers—which apply primarily to public pensions—can further enhance sustainability by insulating pension systems from the short-term political cycles that often prevent policymakers from making hard decisions. And they can prevent the need to take more drastic action down the road.

Consider the move to link retirement age to life expectancy. Rising life expectancy, due to better health care and living standards worldwide, means longer pension entitlement periods. Linking retirement age to life expectancy is likely to lead to longer employment tenure (and therefore more time for people to contribute toward retirement) and consistent periods during which people draw on retirement benefits. Creating a sliding scale that offers higher benefits for later retirement would further incentivize people to remain in the workforce longer.

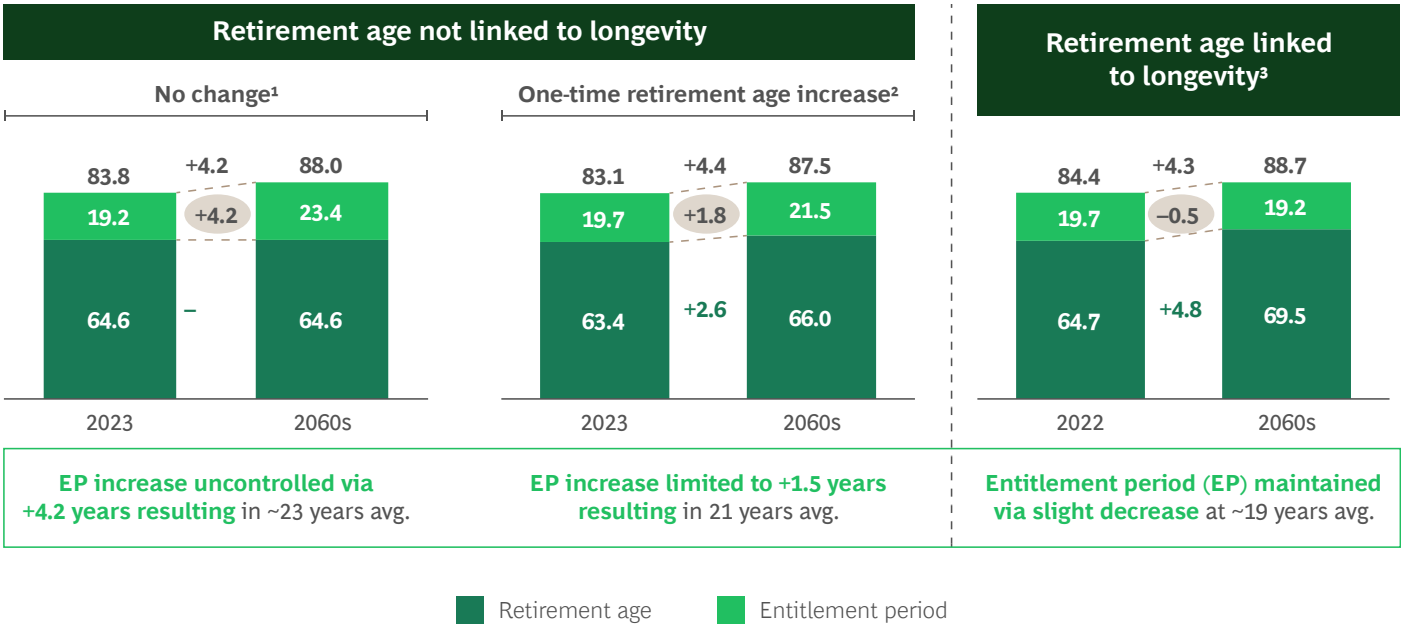
Denmark was one of the first countries to automatically link longevity and the retirement age under a law passed in 2006; by 2040, the country's retirement age is expected to hit 70. The Netherlands passed a similar change in the 2010s, with the retirement age now increasing by eight months for every one-year gain in life expectancy for people 65 years old. While the long-term impact of the change is not yet evident, there has been a 16-percentage-point increase in employment among people just below the new retirement age. And Sweden adopted what is known as its "target age" system in 2019; after transitional retirement age increases in 2020 and 2023, the minimum pension age will be automatically linked to life expectancy starting in 2026.

Denmark, the Netherlands and Sweden, however, are in the minority. According to OECD and BCG analysis, only nine out of 36 OECD countries have introduced an automatic link between retirement age and life expectancy.[3,4] For those nine, entitlement periods (the number of years that people will receive benefits) is projected to fall to, and remain slightly above, 19 years on average through the 2060s. The remaining 27 countries have either implemented a one-time increase in the retirement age or made no change, with entitlement periods projected to increase by more than four years (about 15%) by the 2060s to more than 21 years. (**See Exhibit 5.**)

3. Costa Rica and Colombia are excluded from this analysis due to limited data for both nations.
4. Denmark, Slovakia, the Netherlands, Italy, Sweden, Portugal, Estonia, and Greece. For Estonia and Greece, automatic linkage between retirement age and life expectancy will start in 2027.

EXHIBIT 5

Countries with an Automatic Link Between Retirement Age and Life Expectancy Have More Sustainable Entitlement Periods



Sources: OECD Pension at a Glance, 2023; UN Data Portal Population Division; BCG Henderson Institute analysis.
Note: Average entitlement period is based on life expectancy at age 65; retirement year varies by country (mostly 2060s) as "future retirement age" assumes a 22-year-old starting work in 2022 working a full career and retiring under each country's rules; for Estonia and Greece, automatic link between retirement age and life expectancy will only be implemented in 2027.
[1]Japan, Hungary, Poland, Mexico, Canada, Switzerland, Norway, Chile, Iceland, New Zealand, Australia, Spain, Luxembourg, and Ireland.
[2]Turkey, US, Germany, Great Britain, Austria, South Korea, France, Czech Republic, Belgium, Israel, Latvia, Lithuania, and Slovenia.
[3]Denmark, Slovenia, Netherlands, Italy, Portugal, Sweden, Estonia, and Greece.

The benefits of linking retirement and life expectancy vary based on the type of system. For DB schemes, such a move will strengthen financial sustainability by keeping entitlement periods stable. For DC systems, meanwhile, the change can enable higher payouts, enhancing adequacy.

The impact on equity is more complex. Intergenerational equity for both DB and DC systems would likely get a boost, with each cohort potentially spending the same share of their life working and in retirement. However, redistributive equity may be reduced. For example, low-income workers, who tend to have a shorter life expectancy than high-income workers, might collect pension benefits over a shorter period.

Countries have also adopted automatic adjustments related to factors other than life expectancy, including:

- **Linking Benefits and Contributions to Socioeconomic Indicators.** Under this approach, contributions or benefits adjust automatically when indicators such as the ratio of contributions to benefits paid out or the rate of inflation fall outside set thresholds. (Given aging populations, auto-adjustments will typically either increase contributions or reduce benefits—or both.) Countries such as Canada, Germany, and Sweden have put in place adjustments tied to such factors. These auto-adjustments make DB schemes work partly like DC plans—a hybrid model that improves financial sustainability but may reduce benefits. For DC schemes, sustainability is generally less affected by these automatic adjustments. (The exception: if the required level of contributions becomes unaffordable for many people and therefore cannot be collected.) From an equity standpoint, DB systems will see weaker intergenerational equity and DC systems may see reduced redistributive equity, necessitating supplementary measures.
- **Differentiating Contribution Levels Based on the Individual's Circumstances.** Adding an element of conditional contribution rates and caps—varying with age, income, socioeconomic vulnerability, or family composition—can help make saving for retirement more manageable for individual citizens. Such systems can also be designed to provide additional support to disadvantaged groups. Singapore, for example, has tiered contribution levels based on age, with rates declining as workers move into older age brackets. Such reforms enhance sustainability in both DB and DC systems.

They strengthen redistributive equity by better aligning contributions with individuals' capacity to pay. And although lower contributions for some groups may create a modest risk to adequacy, this impact is limited and can be offset via other mechanisms, including personal savings or other forms of government support.

Integrate poverty-floor guarantees. As countries drive reform, they can build in mechanisms to prevent poverty among retirees.[5] This is particularly vital with schemes under which benefits are not fixed. Individuals with low incomes or minimal assets can have insufficient retirement contribution rates and personal savings, making safeguards essential. For example, a public pension fund might be created to support the provision of a guaranteed minimum income. In addition, mechanisms that essentially operate like insurance, allowing for the spreading of risk or annuitization of returns, can ensure a sufficient level of benefits.

A poverty floor, also referred to as a first-tier guarantee, ensures a minimum level of income protection for vulnerable elderly populations, particularly as benefit adequacy risks increase in the transition from PAYG DB schemes to funded DC systems. In practice, this first tier is typically tax financed and can take different forms depending on a county's socioeconomic context: it may be universal (granted to residents meeting a minimum residency criteria), targeted (provided to those below a certain income threshold), or a model that combines both.

To ensure long-term sustainability, a poverty-floor program may come with clear design parameters, including eligibility age, benefit indexation, and income-adjusted benefit scaling and be underpinned by a credible and transparent budget framework.

In 2022, Chile replaced its existing pension system with a means-tested benefit for residents aged 65 and older who are not among the top 10% of earners. Similarly, Canada's Old Age Security (OAS) provides a monthly pension beginning at age 65, with the income-tested Guaranteed Income Supplement (GIS) offering additional, non-taxable support to low-income seniors.

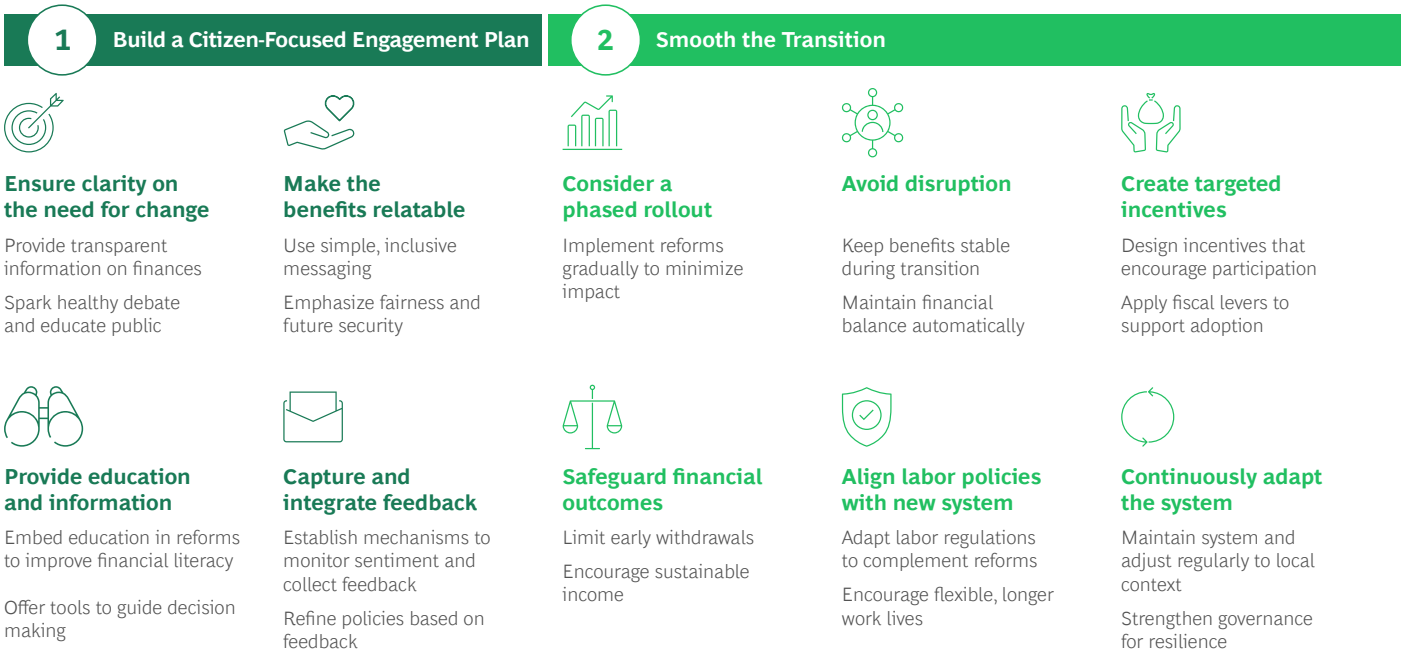
The introduction of such measures can improve pension adequacy for vulnerable groups. At the same time, establishing minimum payouts in particular reinforces redistributive equity but reduces actuarial equity, given the trade-off between the two.

Drive Smart Implementation

The three primary design changes outlined above are critical, but smart implementation is equally important. Countries can move on two fronts here. First, they can build the case for change and reinforce implementation via clear and transparent engagement with the public. Second, they can ensure that their newly designed system contains policies that help smooth the transition. **(See Exhibit 6.)**

EXHIBIT 6

Engagement Plan and Mechanisms to Smooth the Transition Are Key to Implementing Pension Reform



Source: BCG Henderson Institute analysis.

5. Poverty floors are known as the "zero pillar" in the World Bank pension framework.

Build a citizen-focused engagement plan. To bring the public along the journey to a new system, countries can launch a multipronged engagement plan comprising four key elements:

- **Ensure clarity on the need for change.** Clear, accessible explanations of the current pension finances and details of the proposed changes are vital. These can spark a healthy public debate, help build trust, and make the abstract nature of pensions more tangible. And such clarity can ensure people understand whether they need to augment their retirement income with individual savings. To explain its new system, Sweden rolled out the Orange Envelope and the Orange Report in 1999. The envelope provides each citizen with an annual personalized statement of accrued and projected pension benefits, while the report presents the financial balance and long-term sustainability of the public pension system.

- **Make the benefits relatable.** Along with financial rationale, clear and inclusive messaging is also important. Use of relatable stories, simple symbols, trusted voices, and pension data can build acceptance of reform and show that change is necessary, fair, and forward-looking. Australia's employer-based Industry SuperFunds has a long-running campaign, "Compare the Pair," which presents retirement outcomes for two similar workers, one who invested in the fund and another who did not. More than 20 years since launch, it remains one of Australia's most recognizable financial campaigns.

- **Provide education and information.** Low levels of financial literacy, a challenge for many countries, can undermine pension reform. To address the problem, the communication plan can elevate education, providing the support and tools needed to navigate the new system. For example, countries might provide guidance on personal financial and career planning or encourage companies to integrate transition support into HR policies. When the UK launched automatic enrollment for its employer pension in October 2012, the government ran nationwide advertising campaigns to increase awareness, urging workers to "look out for a letter from your employer." In parallel, employers were legally required to write to each worker explaining how automatic enrolment applied to them. This kept opt-out rates persistently low, around 9% to 10%.

- **Capture and integrate feedback.** Countries can embed a continuous feedback loop as they roll out a new system. Singapore's state pension fund uses surveys, CRM, WhatsApp, and call center AI to gather feedback. For example, AI automatically transcribes and summarizes calls to track service quality and to identify and prioritize less tech-savvy callers who may need direct assistance. Capturing feedback can also help countries identify and address potential flaws in their reforms. New Zealand's KiwiSaver, a voluntary funded defined contribution scheme launched in 2007, underwent several changes in December 2021 following a public consultation in 2019. For instance, the default investment settings were adjusted from conservative to balanced. All default fund providers were also required to follow responsible investment standards, such as excluding companies involved in fossil-fuel production and publishing a responsible investment policy.

Smooth the transition. Countries can embed policies into their pension redesign to help smooth the transition to and avoid disruption from the new system. For instance, they might:

- **Consider a phased rollout.** Introducing a reform in stages can help people plan for the change and minimize political fallout. Sweden adopted a cohort-based transition approach in 1999 when switching from a PAYG DB system to a notional defined-contribution (NDC) system, which links benefits directly to lifetime contributions while still operating on a PAYG basis. People born in 1938 received 80% of their pension from the old DB system and 20% from the new NDC DC system, with each later cohort getting more from the new system until those born in 1954 relied on it entirely.

- **Avoid disruption.** Holding benefits steady for retirees can also prevent disruption. In 2004 Germany introduced a mechanism that automatically adjusts annual pension increases according to the ratio of active contributors to pensioners. When the number of workers relative to retirees decreases, pension growth slows, stabilizing the system financially. Importantly, this ensures that total pension benefits never fall below the amount paid out in the preceding year. Reform should also safeguard the income of the current working population.

- **Create targeted incentives.** Smart policies, including tax breaks, can also smooth implementation. In parallel to increasing contribution rates in the 1990s, Canada introduced a tax cut to maintain disposable income levels. And in the US, the SECURE 2.0 Act expanded tax credits for small employers (covering up to 100% of startup costs) to boost pension access and coverage.

- **Safeguard against poor financial outcomes.** Given the uncertainty around longevity, some people may ultimately end up saving too much or too little for retirement. At the same time, some retirees may be tempted to make excessive early withdrawals from pension accounts—moves that put them at risk later. To address the former problem, some countries have adopted risk mutualization, spreading the financial consequences of longevity across a group so that those who live longer are effectively supported by those who do not. Meanwhile, limiting the size of early withdrawals can counter the associated risk and help maintain system adequacy. Germany's occupational pension pillar, for example, permits a maximum of 30% of the accumulated amount to be withdrawn as a lump sum, while at least 70% must be received as

a lifetime annuity. Chile's 2008 reform also mandates the conversion of a significant portion of an individual's savings into some form of retirement income, including via an annuity. And India caps lump-sum withdrawals.

- **Support alignment of labor policies with pension reforms.** The transition to a new national pension system can be smoother when that reformed system is aligned with the labor market. In 2016, Denmark passed a law ending mandatory retirement at age 70. In parallel, the country allowed flexible work arrangements specifically for older employees, including reduced hours and the option of shifting to a position with less responsibility, so that they could keep working longer. In France, meanwhile, the Long Careers scheme lets workers with very long contribution histories retire earlier, while the Arduous Jobs scheme allows those in physically demanding or risky occupations to use credits for earlier retirement, reduced hours, or retraining.

- **Continuously adapt the system.** All pension systems will require adjustments over time as contextual factors such as social structures, labor markets, cultural norms, and socioeconomic trends continue to evolve. Capturing feedback, as noted above, can help identify early signals, enabling decision makers to effectively adapt systems. For example, in the early 2020s amid growing concerns over fund manager integrity, Sweden altered its premium pension scheme, the portion of the public pension system where individuals direct the investment of their contributions. To restore confidence and ensure quality, the government created the Swedish Fund Selection Agency to centrally procure and oversee the funds offered within the system.

While effective implementation, along with smart design, increases the chances of successful pension reform, broader societal shifts are also important. Chief among these is enabling people to extend their working lives. (**See the sidebar "It Takes a Village: Supporting Longer Working Lives."**)

The Path to Future-Proof Pensions

Ensuring financial welfare for older citizens today need not require ever-increasing contributions and taxes to support public pensions. Smart reforms can meet the challenge while balancing sustainability, adequacy and equity. Countries embarking on reform can ask seven key questions:

- Have we stress-tested every proposal against sustainability, equity, and adequacy?
- Can we shift toward funded DC systems to increase sustainability?
- How can we lock in demographic triggers such as retirement age or contribution and benefit indexation?
- Are we ensuring protection for vulnerable groups through measures such as differentiating contribution rates and establishing a poverty floor?
- Do we have a citizen-focused narrative and engagement plan, and are we leveraging tools such as public dashboards to create transparency?
- How do we integrate appropriate cushions such as legacy protection rules, minimum floors, and annuity mandates?
- Have we done everything we can to enhance the well-being of senior workers and optimize the work environment to support longer careers?

Governments have an opportunity to proactively address pension sustainability. Delaying action might be appealing in the short term but can lead to greater costs later. Taking timely, measured steps today offers a chance to put pensions systems on a more stable and sustainable footing for the future.

It Takes a Village: Supporting Longer Working Lives

A common lever in pension reform is to encourage people to delay retirement and work longer. Achieving this will require efforts beyond government policy alone: companies can implement measures to support and empower older employees, and individuals can embrace opportunities to continue their careers.

Extending the work lives of citizens has benefits beyond pension system sustainability. With a downward trend in fertility rates below replacement levels, the working-age population in the OECD area is projected to decline 8% between 2023 and 2060. In many East Asian and southern, central, and eastern European nations, the decline is expected to exceed 30%. The trend will likely dampen productivity growth, with GDP per capita growth projected to slow by about 40% in OECD countries by 2060. Ensuring that people work longer can blunt some of this impact.

What could motivate and enable people to retire later? To answer that question, we conducted a 2,200-respondent survey in Japan. The study found that older workers with higher levels of well-being are significantly more likely to keep working compared to those with lower well-being. The flip side—likelihood to continue working when work directly supports well-being—is also supported by research. A UK study found that continued employment significantly enhances cognitive performance (memory, verbal fluency) and physical mobility (walking speed, reduced mobility issues).[6]

Companies have a lot at stake in creating this sort of virtuous cycle. Aging populations create challenges for business, including a shrinking labor force and the loss of institutional knowledge as seasoned workers retire. Companies that develop a smart strategy for supporting older workers can unlock hidden benefits such as lower attrition, a deeper talent pool, and higher wage productivity.

To capture those advantages, companies can focus on four key actions:

- **Prepare the 40-to-60 cohort for active senior work.** This can include raising awareness, supporting reskilling, adopting digital certificates, offering internal MBAs, and providing side job opportunities and career-path coaching. Beverage and spirits company Suntory in Japan has created the 100-Year Career Faculty within its corporate university to support employees seeking to extend their professional work life.

- **Design age-smart jobs.** Companies can offer flexible work arrangements, job mobility and retention bonuses to preserve know-how. At the same time, they can provide ergonomic tech and health management support (such as rehabilitation and gradual return-to-work policies after health-related absences). Over the last 25 years, a number of manufacturers and retailers have expanded their use of workplace ergonomics and safety technologies. In the early 2000s, BMW implemented ergonomic upgrades in its German factories to better accommodate an aging workforce. Volkswagen's Dresden plant now incorporates age-appropriate design guided by a demographic coach. IKEA has deployed over 400 exoskeletons across 14 countries. Airbus integrates exoskeletons into aircraft assembly, while Ford has introduced EksoVest support systems in 15 plants worldwide.

- **Build a community for older employees.** Companies can connect senior employees to share knowledge and their experiences in navigating the workplace as an older employee. They can also facilitate access to specialized networks, including health care professionals, retirement planning advisors, and peer support groups.

- **Bridge employee generations.** This can involve creating cross-generational teams, pairing seasoned experts with younger digital natives. Such partnerships encourage mutual knowledge sharing and help preserve the valuable, often unwritten, knowledge held by these experts. Estée Lauder has a reverse mentoring initiative in the US that allows older workers to learn about digital, social media, and young consumers' purchasing behavior directly from their more junior colleagues.

Governments can reinforce these efforts by employers. For example, they can eliminate work disincentives by reforming tax, pension, and wage systems; foster an ecosystem to advance emerging technologies such as virtual reality, augmented reality, AI, and robotics that enable workplaces and roles better suited to older employees; and provide midcareer readiness support in skills, career, and digital reskilling. At the same time, they can invest in community and lifestyle infrastructure that promotes mental well-being and encourages active community participation. This can include expanded access to health and financial education, complemented by personalized wellness advisory programs.

Simultaneously, individuals can commit to and prepare for longer careers. People can start designing their work-life plans with a 100-year lifespan in mind—actively shaping their career, leisure, and lifestyle goals long before retirement looms. They can also cultivate a mindset focused on mental well-being and financial security by continuously seeking growth opportunities, meaningful contributions, and strong human connections—both in their career and personal life.

6. OECD Employment Outlook 2025; J. Banks et al., "The Impact of Work on Cognition and Physical Disability: Evidence from English Women," *Labour Economics*, 2025.

About the Authors

Sam Karita is a managing director and senior partner, leader, at the BCG Henderson Institute Japan. You may contact him by email at **karita.osamu@bcg.com**.

Tomoki Isogai is a principal in BCG's Tokyo office. You may contact him by email at **isogai.tomoki@bcg.com**.

Csaba Bakos is a principal in BCG's Budapest office. You may contact him by email at **bakos.csaba@bcg.com**.

Mark Wiseman is a senior advisor in BCG's Boston office. You may contact him by email at **wiseman.mark@advisor.bcg.com**.

For Further Contact

If you would like to discuss this report, please contact the authors.

Acknowledgments

The authors thank the following BCG colleagues for their contributions to the research: Cesar Sanchez, Eiichi Hasegawa, Toshihiro Takeda, Vincent Chin, Daiki Miura, Germaine Tan, Mayuki Yaso, Nagi Cao, Saaya Nakano, Shunsuke Ochi, and Yoshiki Kasuga.

Boston Consulting Group
Boston Consulting Group partners with leaders in business and society to tackle their most important challenges and capture their greatest opportunities. BCG was the pioneer in business strategy when it was founded in 1963. Today, we work closely with clients to embrace a transformational approach aimed at benefiting all stakeholders—empowering organizations to grow, build sustainable competitive advantage, and drive positive societal impact.

Our diverse, global teams bring deep industry and functional expertise and a range of perspectives that question the status quo and spark change. BCG delivers solutions through leading-edge management consulting, technology and design, and corporate and digital ventures. We work in a uniquely collaborative model across the firm and throughout all levels of the client organization, fueled by the goal of helping our clients thrive and enabling them to make the world a better place.

BCG Henderson Institute
The BCG Henderson Institute is Boston Consulting Group's strategy think tank, dedicated to exploring and developing valuable new insights from business, technology, and science by embracing the powerful technology of ideas. The Institute engages leaders in provocative discussion and experimentation to expand the boundaries of business theory and practice and to translate innovative ideas from within and beyond business. For more ideas and inspiration from the Institute, please visit our **website** and follow us on **LinkedIn** and **X (formerly Twitter)**.


BCG
BCG
HENDERSON
INSTITUTE