GFIA

GLOBAL FEDERATION OF INSURANCE ASSOCIATIONS

Global protection gaps and recommendations for bridging them

March 2023

Report extract:

Pension protection gap

II. Executive summary

"The pace of change has never been this fast — yet it will never be this slow again." This statement by Canadian prime minister Justin Trudeau in 2018 describes the pace at which megatrends disrupt the world we live in, implying high levels of change and uncertainty for both individuals and organisations.

Four megatrends are particularly relevant given their global economic relevance and their impact on human lives:

- **Climate change**, which impacts lives and livelihoods around the globe. The World Economic Forum estimates it will create costs equivalent to between 4% and 18% of global GDP by 2050 if no adequate preventive actions are taken.
- **Technological acceleration** and the use of data, which has increased exponentially over recent years, with the amount of data stored globally expected to reach an unprecedented 180 zettabytes[2] by 2025.
- Changing **demographics** leading to ageing populations (in the USA, for example, 21% of the population is expected to be above 65 by 2030, up from 17% in 2020). At the same time, GDP productivity will shift towards emerging countries, which will account for 35% of global GDP in 2040, up from 25% in 2020.
- Disruptive developments in **macroeconomics and politics**, which will increase the level of uncertainty and volatility across the globe as supply-chain disruptions, inflation and other developments hit economies worldwide (eg, inflation in Europe was at almost 10% in July 2022 compared to 2.5% in the previous year).

These megatrends also change today's risk landscape by reinforcing existing risks and creating new ones, increasing the vulnerability of both individuals and organisations. Among the newly emerging risk areas are cyber risk, supply-chain disruptions and environmental liabilities.

The risk landscape impacts:

- individuals (such as pensions, health, mobility and homes, as well as disability, morbidity and death);
- businesses (such as business continuity); or,
- both individuals and businesses (namely personal and business liability, property, financial markets, natural catastrophes (natcat) and war and terrorism).

The risks vary in terms of economic relevance, speed of growth, direct impact on human lives (whether they cause major hardship or death) and insurability (whether private insurers or public systems can at least partially cover them).

Of these risks, **pensions, cyber, health** and **natcat** stand out due to their growing economic importance, impact on human lives and insurability. Exploring the current protection landscape and analysing the protection gaps related to these risks is particularly relevant due to their substantial economic and human impact.

While the insurance industry can contribute to reducing these protection gaps when the underlying risks are insurable, a single stakeholder group alone cannot narrow the gaps. Close collaboration between private and public stakeholders is necessary, as governments and other public entities can help build the appropriate regulatory environment, create fiscal incentives or conduct public awareness and prevention campaigns, among other actions.

Below we describe these four protection gaps in more detail and summarise the possible levers that private and public stakeholders can use to reduce them. We end this Executive summary with GFIA's own recommendations to policymakers for reducing the protection gaps in cyber, pensions and natcat.

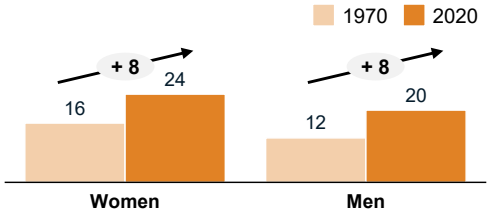
2 10^{21} bytes or a trillion gigabytes

Four major protection gaps

Accelerated by current trends

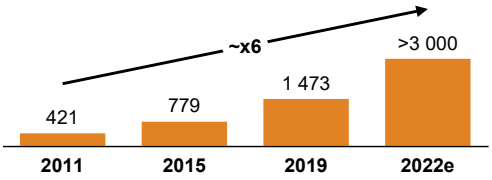
Pension

Expected life years after labour market exit (OECD countries)



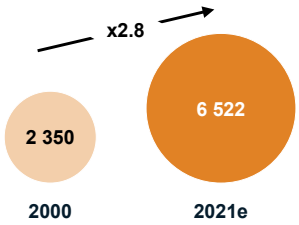
Cyber

Number of breaches with >50 000 files lost



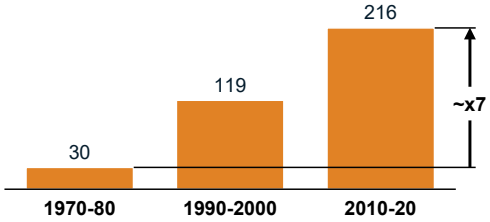
Health

Health spending[1] in OECD countries (US$ per capita)

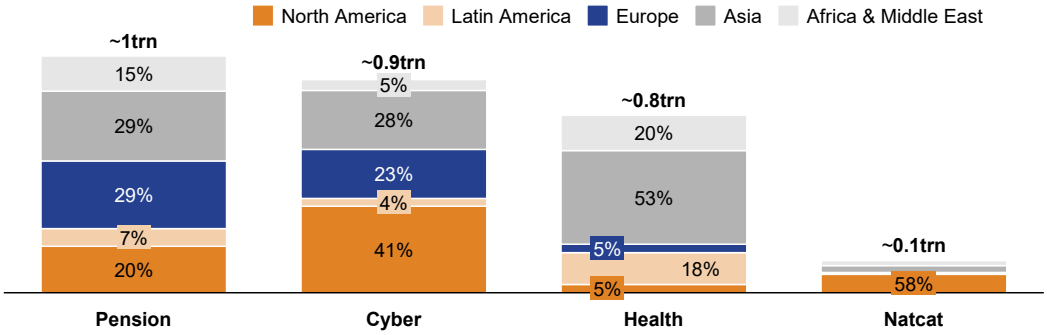


Natcat

Average annual natcat losses per decade[2] (US$bn)



Annual protection gaps (US$trn) and geographic split



Pension	Cyber	Health	Natcat
Cumulative gap of US$51trn after deducting pay-as-you-go, converted into an annuity of US$1trn p.a. with a 1% interest rate over 40 years	First-order cyber losses (US$0.95trn) minus paid cyber claims (US$0.06trn)	Stressful out-of-pocket spending[3] only. Gap could reach up to US$4.0trn if spending avoided due to financial constraints is included	~60% of natcat losses not insured between 2011 and 2020

e = estimate

1. Including personal healthcare (curative care, rehabilitative care, long-term care, ancillary services and medical goods) and collective services (prevention and public health services and health administration), excluding investments
2. Events caused by natural forces triggering insurance policies, eg, floods, storms, earthquakes, droughts, forest fires, frost, hail and tsunamis
3. Spending by individuals that puts pressure on their finances

Pension protection gap — growth exacerbated by demographics

Demographic changes are putting unprecedented pressure on pension systems globally, requiring them to sustain more people as the expected lifespan after retirement increases alongside the number of people entering the systems. And public pension schemes are under pressure as fewer people in the workforce support the inflow of funds into the schemes due to falling birth rates coupled with the increasing number of people receiving disbursements. The increasing living standards of societies worldwide also accelerate the need for higher pensions.

Together, these rising pension needs and decreasing monetary inflows into pension systems result in an increasing pension protection gap. This pension gap differs between countries due to different funding schemes (eg, self-funded versus pay-as-you-go), the role of property ownership, the wealth of the population, life expectancy, the regulatory environment, the need for (long-term) healthcare and the role of the family.

We define the pension protection gap as the difference between the savings needed to sustain a reasonable standard of living (65-70% income replacement) for the next generation of retirees and the currently projected inflows into the system. The cumulative pension gap is approximately US$51trn today (excluding pay-as-you-go pension payments and disbursements). We converted this amount into an annuity over 40 years (ie, a typical work-life duration) to identify the annual protection gap (ie, the annual sum that would be necessary to compensate for the future pension protection gap) to ensure comparability with the other gaps.

The global pension gap is estimated at US$1trn annually and is expected to grow even further, impacted by several drivers. The global share of people over 65 grew from 6.8% in 2000 to 9.3% in 2020, increasing the demand for pension disbursements. Similarly, real GDP per capita is expected to continually increase until 2050, pointing towards increased living standards, which are accompanied by increased pension needs and expectations.

Given that pension needs are likely to continue to grow faster than the available funds, the gap will further increase, especially because decreasing investment returns are expected to hit pension schemes worldwide. While the past decade has brought significant positive returns on both equities and bonds, these key asset classes are unlikely to maintain this level of return in the next decade. As the pension gap has reached a significant size, close collaboration between public and private stakeholders is necessary. While public stakeholders play an important role in building the appropriate regulatory environment, private stakeholders could help address the gap by, for instance, introducing new products.

There are various potential levers for private and public stakeholders to use to address the protection gap. These include: offering innovative and flexible products; creating awareness of the need to save for retirement; encouraging automatic enrolment in pension schemes; and introducing tax incentives.

- To meet evolving customer needs, insurers have developed a range of innovative and flexible products, including:
  - Products proposing a customisable balance between variable and fixed returns
  - Products providing access to new types of investments (eg, renewable energies)
  - Offers enabling customers to turn illiquid wealth, such as real estate, into liquid assets (eg, reverse mortgage schemes)

- Pension needs and options are often difficult to understand. Thus, promoting pension savings and educating people, especially the young, could increase retirement provision. For example, the Singaporean government launched a dedicated campaign in 2009 when implementing a national pension income reform (CPF Life). Approximately 90% of those who attended the campaign's educational events said they could apply what they had learned.

- Furthermore, governments can introduce automatic enrolment for all citizens in the formal labour force (as done in Australia, New Zealand and the UK) or encourage it through enterprise-level regulation (as in Canada and the USA). Implementing automatic enrolment is effective; for example, participation in the USA 401k pension plan increased by at least 50% due to automatic enrolment.

- Lastly, many countries have implemented tax incentives to encourage employees' and employers' pension contributions.

The suitability of these levers for addressing the pension protection gap needs to be assessed individually for each country, as countries differ structurally and culturally, for instance in terms of their overall level of wealth and the affordability of pension savings.

GFIA recommendations for policymakers

Introduction

This report has been produced by GFIA to promote greater understanding of the largest protection gaps faced by individuals, businesses and societies globally. Later chapters look into these gaps in more detail, examine the drivers and provide an overview of the wide range of potential levers that could be considered as ways to help reduce each of the gaps. The range of potential levers covered in later chapters include both actions that insurers can take and actions the public sector can take. The potential levers identified for policymakers have pros and cons — some can have unintended consequences and others may work in some jurisdictions but not in others. Nevertheless, all the levers have been included in the report to give as complete an overview as possible.

In this section of the report, GFIA focuses on its own recommendations for policymakers because insurers' ability to help reduce protection gaps is dependent on appropriate actions being taken by regional, national and supranational policymakers. It is they who can design and create the environments in which risks can be best managed and mitigated and so allow insurers to play their key role.

The following sets of recommendations represent "dos" and "don'ts" with which the global insurance industry considers policymakers can have the largest potential impact across the world in helping to address protection gaps.

Recommendations to policymakers for narrowing the pension protection gap

Promote pension savings and educate individuals, especially young people, on the importance and value of making continuous savings from the beginning of their working life.

- Improve levels of financial education, as low financial literacy makes it hard for people to understand their needs and pension saving options. Begin financial education at school.
- Help every citizen to understand how much saving they may need for retirement by, for example, developing national tracking systems with clear information about expected future pension benefits.
- For instance, provide disclosures that illustrate savings as monthly lifetime income annuity payments to help individuals better gauge whether they need to increase their retirement savings or revise their investment mix to meet their retirement income goals.
- Integrate behavioural aspects into awareness-raising campaigns, identifying the best ways to encourage citizens to take action.
- Encourage individuals to maintain steady pension contributions even in difficult times.

Ensure that pension policy is based on a long-term and holistic strategy connected to other policy areas, including employment, housing, taxation and healthcare.

- These other policy areas can have impacts on the ability and need to save for retirement.
- Ensure stability and confidence in the pension-saving framework so that individuals are willing to save long-term and providers are willing to establish and operate long-term.

Incentivise employers to offer pension arrangements.

- For workplace pensions, avoid high administrative burdens and allow pooled employer retirement savings plans.
- Consider automatic enrolment schemes, with opt-outs, as a way to encourage savings, but take into account national circumstances (ie, existing schemes, products and providers).
- Offer incentives, such as tax benefits or subsidies for pension arrangements, to encourage employer and employee pension contributions.

Enable part-time workers, self-employed workers and "gig economy" workers to join retirement saving programmes.

Ensure good regulation that allows innovation and digital-friendly delivery and formats, as well as enabling providers to meet the evolving needs and expectations of consumers, especially new generations.

- For example, remove out-dated requirements in existing regulation, such as the requirement to provide consumers with information on paper as the default method.
- Replace these requirements with digital-friendly rules allowing consumers to access information or services digitally if they wish and to benefit from the opportunities that digitalisation offers.
- Limit mandatory disclosure requirements to key information, focusing on the quality of information rather than its quantity.

Aim for a pension policy that covers accumulation and decumulation with the flexibility to meet consumer needs and circumstances throughout retirement, enhancing the objective of maximising retirement income.

- Recognise that individuals' needs change as they age and progress from work to retirement.
- Ensure solutions, such as annuity products, are available to help individuals cover their longevity risk.

Do not have regulations that create unnecessary barriers or costs preventing insurers from providing effective and efficient pension solutions.

- Avoid capital requirements that undermine insurers' ability to invest long-term or offer long-term products and guarantees.
- Avoid excessive sales regulation, such as disclosure requirements, that leads to information overload for customers and unnecessary costs.

Do not impose policy measures that inhibit access to financial advice for consumers with limited disposable income.

- Eliminating support from financial advice professionals who receive remuneration from pension providers inhibits access to advice for consumers who cannot afford fee-based advice.

Do not implement policy measures that would result in the defunding of private pension schemes, such as retroactive changes to contract terms.

V. Pension protection gap

Growth exacerbated by demographics

For a summary of this chapter, see the Executive Summary, "Pension protection gap", p10. And for GFIA's recommendations for closing the pension protection gap, see the Executive Summary, "GFIA recommendations", p16.

Pension systems across the globe are experiencing unprecedented pressures. The severity of these pressures depends on a range of parameters, such as the type of funding scheme, the wealth of the population, the role of the family, the role of own real estate and the regulatory environment. Pension systems need to sustain more people for longer as life expectancy after retirement increases. Moreover, in the future there will be fewer workers (in relation to retired people) to support pension spending, as in many countries large cohorts are reaching retirement age as birth rates and labour participation rates are declining[153].

OECD pension contributions stagnant as share of GDP since 2008

In terms of supply drivers to the pension system, contributions as a share of GDP, have, on average, been stagnant in OECD countries since the 2008 crisis[154]. In addition, while the past decade has brought positive investment returns, both equities and bonds are unlikely to provide the same yields in the next decade, thus returns might cause an additional concern.

To analyse the pension protection gap, we started by first examining the contributions and disbursements side, then assessing the needs side. Finally, we estimated the severity of the gap. The gap estimations assume that neither the retirement age in most countries nor contributions to Pillar I pension plans (as defined below) will change substantially in the future. A higher retirement age would significantly reduce needs, while higher contributions to Pillar I would have a positive effect on the funds available for disbursements, but both could be expected to vary greatly by country.

Building on the Geneva Association definition

The pension gap, as defined by the Geneva Association, is the difference between the present value of the yearly lifetime income needed to sustain a reasonable standard of living (estimated to be 65-70% of income) and the actual amount saved for retirement plus the present value of pay-as-you-go (PAYG) contributions over 40 years. The pension consists of public and private pension plan disbursements (including PAYG and US 401(k)) and, partly, private savings. A PAYG pension plan describes a pension system in which current payments are used to fund current disbursements.

When looking at the pension disbursements, we include Pillar I, Pillar II and Pillar III from the World Bank pension framework (Figure 11). The key objective of the World Bank's pension framework is to illustrate the importance of a policy framework that is sufficiently flexible to address diverse country conditions.

Pillar 0 is a non-contributory pillar, providing a minimal level of protection for low-income families and is financed by the government. Pillar I includes public pensions, usually to cover basic needs, and is often financed on a PAYG basis. Pillar II is a (usually) mandatory individual savings account of private or public origin and is linked to employment. The benefits are paid in the

153 ILOSTAT database, labour force participation rate, total (% of total population aged 15+) (modelled ILO estimate), 1990–2021, World Bank
154 "Pension markets in focus — 2020", OECD, 2020

form of monthly payments for life (defined benefit plans) or contributions to a savings account (defined contribution plans). Pillar III consists of voluntary private savings accounts. Pillar IV is the voluntary, non-financial, informal part of pension savings, consisting of, for example, family wealth, real estate and reverse mortgages[155].

Figure 11: World Bank five-pillar pension framework

Pillar	Contributions	Examples	Form	Financed by	Providers
0	Non-contributory	"Grundsicherung" (German basic income pension)	Monthly payment	Taxes	Public
I	Mandatory	US Social Security Canada Pension Plan	Monthly payment	Pay-as-you-go Partially funded	Public
II	Usually mandatory	401(k) Pension funds	Monthly payment for defined benefit plans Contributions to savings for defined contribution plans	Individuals	Private
III	Voluntary	Savings plan such as the individual retirement account in the US Insurance	Can be defined benefit or contribution Cash, bonds, stocks, mutual funds, real estate	Employers Individuals	Private
IV	Mainly non-financial	Family support Home-ownership	Family support Home-ownership	Individuals	Public Private

US$56-58trn of assets in global pension system

At the end of 2020, there were US$56-58trn in total assets[156] in the pension system worldwide. In addition to the value of pension funds and the benefits they pay, the PAYG system contributes at least the same amount of contributions a year and adds to the disbursements side of the equation[157]. The overall level of financial viability of a pension system is thereby influenced by PAYG and non-PAYG contributions, returns pension funds receive on assets and disbursements.

Modestly positive trend in contributions and investment returns

Contributions to pension plans in absolute terms increased in most OECD countries from 2010 to 2020[158]. However, they were stagnant as a share of GDP at approximately 2.2% (Figure 12). Global GDP is forecasted to increase by approximately 70% from 2020 to 2050 and contributions are expected to grow at a similar pace[159].

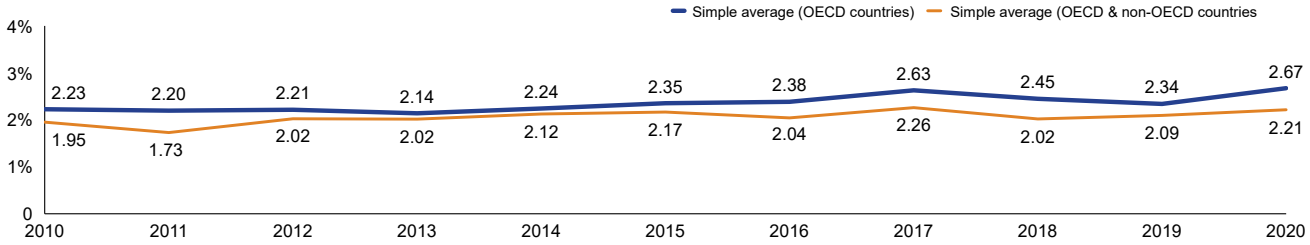
Contributions to pension plans are driven by several factors, namely the number of people contributing to the system and the average contribution rate per member.

- The number of people in the global workforce has grown at around 1% a year since the 1990s. From 2000 to 2020, for example, the workforce increased by 24%[160]:
  - The overall working-age population increased by 27%[161].
  - The labour participation rate fell from 64% to 59%[162] during this period, which somewhat lowered the growth of the number of people contributing to the pension system. The share of the informal economy (ie, the "unofficial" workforce) in most emerging markets decreased in the last 10 years, which increases the workforce actively contributing to the plans[163].

155 "The World Bank pension conceptual framework", World Bank, 2008
156 "Pension markets in focus — 2021", OECD, 2021
157 If looking at the present value of PAYG contributions
158 Based on "Pension markets in focus", 2015 and 2021, OECD
159 Estimation based on Oxford Economics' 2030 GDP growth rates projection
160 Population ages 15–64, total, 2000–20; population ages 65 and above, 2000–20, World Bank
161 Population, total, 1960–2020, World Bank
162 ILOSTAT database, labour force participation rate, total (% of total population aged 15+) (modelled ILO estimate), 2000–2020, World Bank
163 Based on the World Bank's informal economy database

Figure 12: Pension contributions have remained stable, with an uptick in 2020

Contributions to pension saving plans — 2010−20 (% of GDP)



Source: OECD

- Contribution per person was, on average, 15% of annual income for public schemes and 3% for private schemes[164]. While there is limited information on trends on a per-member basis, it can be assumed that contributions have been stagnant as a share of annual income. Voluntary contributions, which could have been a driver of changing savings behaviour, increased until 2000 as a share of GDP but showed no further increase from 2000 to 2020[165]. Multiple factors, such as personal income, may significantly affect participation in voluntary private pension schemes.

The other major source of contributions, ie, PAYG pension contributions, are driven by similar factors, such as demographics and political decisions (eg, retirement age).

Only small share of savings during COVID-19 restrictions put into pensions

Although private household savings rose sharply in the wake of the COVID-19 pandemic, it is reasonable to assume that this will only marginally address the pension gap. The reasoning is that the various countermeasures against COVID-19 severely limited household consumption options (for example, restaurant visits, travelling and hotel stays), while the government cushioned adverse effects on incomes (for example, those resulting from reduced wages) through support payments resulting in increased private savings, especially for middle- and high-income households[166]. However, surveys by the Federal Reserve Bank of New York and from the UK suggest that only a small share of savings from COVID-19 have been used for individual pension plans, as households anticipate future tax and price increases in response to high government spending during the pandemic[167,168]. Additional research in the coming years will provide more evidence of the net effect of COVID-19 on the pension gap.

Investment returns are unlikely to be as strong as they were in the decade of post-2008 recovery. During the 10 years from 2010 to 2020, average real pension investment returns were positive for 33 out of 35 OECD countries, with an average real geometric return of 3.1% from 2009 to 2019 and 3.6% in 2020. The returns were lower on average from 2015 to 2019 (2.7%) than from 2010 to 2014 (4.0%). Currently, pension fund managers are concerned about growing headwinds; seven out of 10 are expecting returns to be significantly lower in the years to come,

164 “Pensions at a glance — 2021: OECD and G20 indicators”, OECD, 8 December 2021
165 “Pension markets in focus”, OECD
166 “The implications of savings accumulated during the pandemic for the global economic outlook”, European Central Bank, 2021
167 “Survey of consumer expectations”, Federal Reserve Bank of New York, 2021
168 Charles Nourse, James Tasker and Marco Garofalo, “How has Covid affected household savings?”, research blog, Bank of England, 25 November 2020

according to a 2021 Amundi poll[169]. It can hence be expected that returns will not see the same level of growth as during the previous decade, adversely impacting the stock level and benefits paid by funded pension schemes.

Equities becoming more popular in pension saving

Bonds and equities are the two most popular asset classes for pension savings, with equities rising in prominence (Figure 13). They account for over half of investments in 35 of the 38 OECD countries[170].

- High equity returns from 2010 to 2020 combined with low returns offered by bonds shifted asset allocations towards equity. Indeed, equity valuations, as measured by the Shiller price-earnings ratio, rose from 20.34 in October to December 2011 to 38.53 in October to December 2021[171]. However, they are unlikely to yield the same level of returns in the next 10 years. While the S&P 500 saw 13.6% growth per annum from 2010 to 2020, it is projected to increase by 6% per annum in the next decade[172].

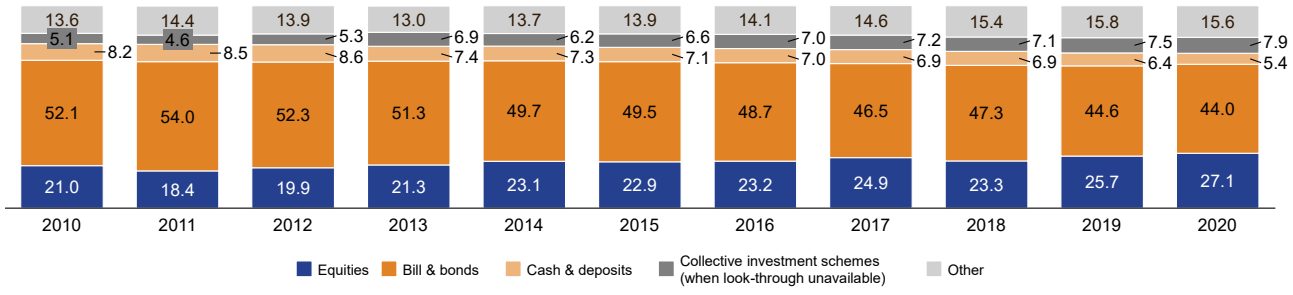
- The ultra-low interest rate environment post-2008 has led to positive returns on portfolios of corporate and government bonds with long durations. However, given the likely increases in interest rates in the USA and the EU, bond portfolio returns are likely to decrease in real terms, creating a challenge for pension managers.

Through pension schemes, individuals can access alternative asset classes

- As a means of diversification, most of the pension schemes around the world substantially expanded their allocations to alternative asset classes, ie, assets that are usually more illiquid and often not easy for individual investors to acquire. Large pension plans now hold 10-15% of assets in these investments. Holdings of alternative assets — which include private debt, private equity, real estate and infrastructure — are expected to grow further, with a projected 60% increase between 2020 and 2025, surpassing US$17trn in assets under management, according to UK investment-data company Preqin. A large share of this is expected to continue to be held by pension scheme providers. However, even with an illiquidity premium, alternative and private assets are unlikely to entirely solve the investment returns issue of most pension schemes.

Figure 13: Asset allocation has shifted towards equities since 2010

Pension fund investments by type — 2010−20 (% of total investment)



Source: OECD

169 Amin Rajan, "DB plans in their end game in the post-pandemic era", Amundi Asset Management, 2021
170 "Pensions at a glance — 2021", OECD, 2021
171 Shiller PE Ratio by Month, NASDAQ
172 Brian Scheid, "S&P 500 returns to halve in coming decade – Goldman Sachs", S&P Global Market Intelligence, 15 July 2020

Together, the amount of public (including PAYG) and private pension disbursements is approximately US$9-10trn[173]. According to the 2021 OECD report on pensions, among OECD countries, pension expenditure increased alongside the GDP by, on average, 1.5% of annual GDP between 2000 and 2017[174]. While the moderate growth in contributions and investment returns over the last decade is expected to slow or decline in the future, disbursements are expected to grow further to match the increasing needs of an ageing population.

Without the increase in employment among OECD countries, which, in a way, finances disbursements (by 1.1% of GDP on average), the increase caused by the demographic change would have been even higher (approximately 2.5% of GDP[175]). Financing these disbursements will be a challenge for both private and public stakeholders (eg, pension funds) in the coming decades as this trend continues.

The OECD is forecasting pension spending to continue to gain a more prominent share of GDP. Disbursements are forecast to make up at least 12.4% of GDP by 2050 — versus 10.7% in 2020 — if private pension expenditure stays relatively constant as a share of forecasted public expenditure. This estimate is based on the OECD model and takes into account:

- The number of people over 65 versus the population of 22- to 65-year-olds
- The labour participation of people over 65
- A proxy for average pension

Pension needs grow strongly

Future growth in pension needs in absolute terms will continue to be driven by two factors: an ageing population and growing standards of living. More people will expect to receive higher pension benefits for longer periods.

Over 65s expected to double in next 30 years and live much longer

The global share of people over 65 grew from 6.8% in 2000 to 9.3% in 2020[176]. The number of people over 65 is further expected to double from 0.78 billion to 1.55 billion over the next 30 years[177]. This is due to a combination of the age distribution of the population and life expectancy, which is predicted to continue increasing. While life expectancy at labour market exit was approximately 16 years for women and 12 years for men in 1970, it was 24 years for women and 20 years for men in 2020 (Figure 14). Meanwhile, fertility rates are expected to further decrease from 2.4 births per woman in 2019 to approximately 2.2 in 2050 and the retirement age has stayed largely the same. In the next 30 to 40 years, the OECD suggests that, based on legislated measures, the normal retirement age will increase on average by approximately two years, while life expectancy is projected to increase by around four years in OECD countries.

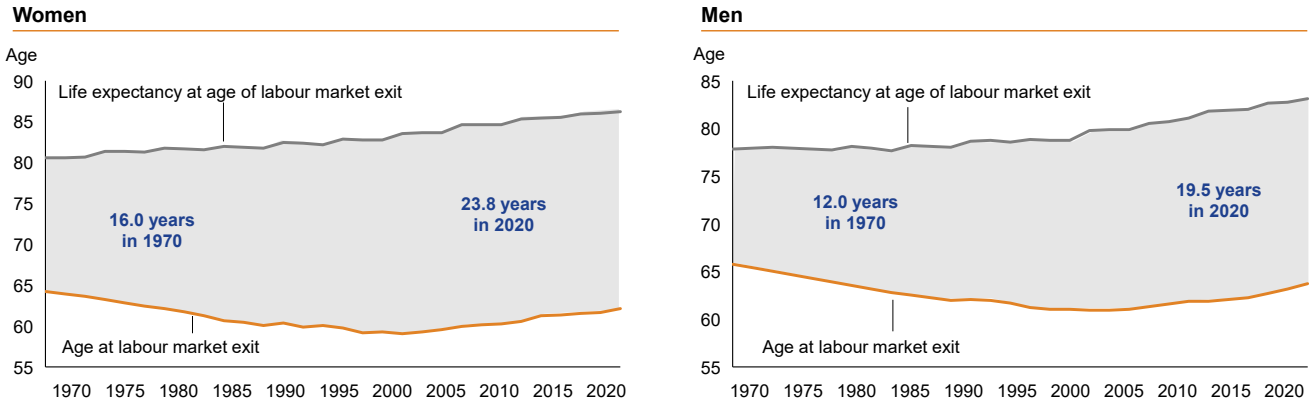
Growing living standards are the second driver of the rising need for pensions. GDP per capita doubled from 2000 to 2020[178] and is expected to further increase by approximately 50% by 2050. Quality of life expectations also increased alongside growing disposable income. Currently, three-quarters of people are concerned about their quality of life after retirement[179] based on expectations related to living costs, health and social care.

173 Based on World Bank and OECD estimates
174 “Pensions at a Glance — 2021”, OECD, 2021
175 Ibid
176 Population ages 65 and above (% of total population), 2000–2020, World Bank
177 Population by broad age group projected to 2100, world, 1950–2100, Our World in Data
178 GDP per capita, PPP (current international US$), 2000–2020, World Bank
179 Kate Murray, “Almost three-quarters of people fear living standards will fall in old age,” The Guardian, UK, 26 February 2014

Some countries will face a sharper increase in pension needs. For example, China's society became an ageing one in 2000[180] and the proportion of retirees to the contributing population will continue to grow, spurred by a range of factors, including the one-child policy of the pre-2018 period. Over the last 10 years, China's total population increased 5.4%, while the number of people over 65 increased by 60.3%.

Figure 14: Life expectancy after labour market exit has increased by 8 years for men & women

Life expectancy after labour market exit in OECD countries — 1970−2020



Source: OECD

Additional US$1.0trn/year needed to close current pension gap

Estimated aggregate pension gap is US$51trn ...

To quantify the current pension gap, we calculated the difference between the present value of the funds needed to cover 65-70% of the pre-retirement income and the currently projected disbursements of pension funds. The Geneva Association estimates the aggregate global pension gap (after deducting PAYG-covered disbursements) at approximately US$51trn based on existing pension gap calculations[181] and OECD estimates of PAYG pension funding. The existing pension need is estimated at approximately US$100trn when PAYG is not deducted, implying that PAYG schemes currently account for 49%.

... which equates to an annual requirement of US$1trn

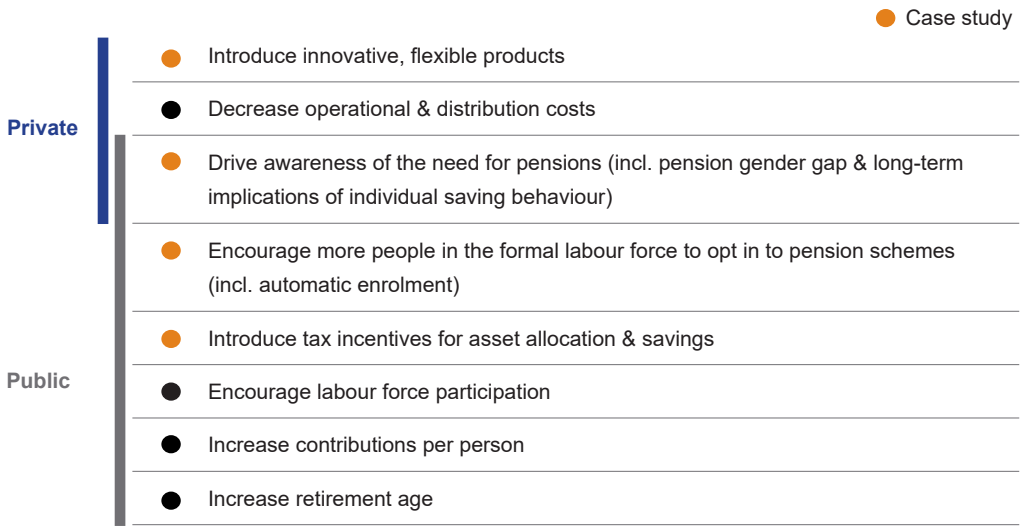
Closing a gap of US$51trn would require an additional annuity payment of approximately US$1trn per year, assuming an interest rate of 1% and a period of 40 years (ie, assuming that the gap is closed during one working-life generation). According to the World Economic Forum, the gap may be even more significant than the Geneva Association estimates, as it put the gap at as much as US$70trn (including government-provided pension, employer pension and individual savings) in 2015, based on eight countries (Australia, Canada, China, India, Japan, the Netherlands, the UK and the USA)[182].

Variety of levers for public and private stakeholders

We have identified a list of potential levers for private or public stakeholders to use to address the pension protection gap (Figure 15). It is worth noting that the portfolio of levers chosen by each country will differ depending on elements such as the role and positioning of the insurance industry, past initiatives and policy choices. This long list of potential levers should not be thought of as a list of recommendations but as a "menu" of possible actions.

180 Lou Feipeng, "'Third pillar' of pension cover can help aging society", The State Council of the People's Republic of China, 31 March 2021
181 Richard Marin, "Global pension crisis: Unfunded liabilities and how we can fill the gap", Wiley, 2013
182 "We'll live to 100 – how can we afford it?", World Economic Forum, May 2017

Figure 15: Pension protection gap — toolbox of potential levers



(For GFIA's pension protection gap reduction recommendations, see the Executive Summary, p16.)

We have looked at four case studies (Figure 16) that illustrate how some of these levers have been put into practice in some parts of the world by private or public stakeholders.

Figure 16: Overview of case studies

	Levers	Case studies	Outcomes
Private	Introduce innovative, flexible products	Products offering a flexible & customisable mix between variable & fixed returns Products enabling customers to invest in new asset classes (eg, infrastructure) Life product in which payout takes the form of residence in a retirement home	Impact n/a
Public	Drive awareness of the need for pensions	Campaign to ensure the new pension system is understood by all citizens Campaign to increase overall pension awareness & financial education	>40 000 Singaporeans switching to CPF Life while still non-mandatory >27pp pension awareness in 4 years
	Encourage more people in the formal labour force to opt in to pension schemes	KiwiSaver plan, automatically enrolling new employees (with 8 weeks to opt out) Mandatory occupational pensions to which employers must contribute 9.5% of their employees' wages Automatic enrolment through enterprise-level regulation	75% of population enrolled after 10 years (vs. 15%) 60+% of population aged 65+ receiving pension 91% of people enrolled (vs. 28% before)
	Introduce tax incentives for asset allocation & savings	Plan d'éparge retraite (PER), enhancing & harmonising tax benefits on pension products Tax incentives for both employer & employee contributions, incl. minimum contributions	10x pension deposits in 2 years 2x size of pension assets vs. Iceland's GDP

Case studies

Introduce innovative, flexible products

Many countries around the globe are currently engaging in pension reforms, often involving an increased use of funded pension programmes managed by the private sector[183]. Insurers are likely to play an increasingly important role in delivering post-retirement income in the form of pensions. To build on these market dynamics and meet evolving customer needs (eg, generating returns in an environment of low or uncertain interest rates), insurers are developing new pension offerings. These emerging products differ in their investment structure and the types of underlying assets, but all aim to provide a more tailored asset allocation and set of investment options to suit individual pension needs, including:

- Next-generation guarantee products offering a customisable balance between variable and fixed returns
- Products providing access to new types of investments
- Products enabling customers to turn illiquid wealth, such as real estate, into liquid assets

Customised products can balance security and returns

- **New customisable products**

  Customisable products allow customers to define their own balance between the need for protection and the desire to achieve certain levels of returns. They provide solutions to address possible low-interest environments and fit the individual risk appetite, offering a flexible mix between variable returns and insured capital/fixed returns. Customers can balance their need for the security of guaranteed returns with their desire to generate additional returns.

  These kinds of products have been developed by European insurers, among others[184]. In Germany, insurers allow policyholders to choose their own share of guaranteed capital (eg, 60%, 80% or 100%) with a guaranteed interest rate and more risky assets (eg, Euro Stoxx 50 or S&P 500 assets). In France, the Eurocroissance fund is composed of bonds and risky, or illiquid, assets (eg, equities, real estate, infrastructure, unlisted companies) that could perform better than fixed-return investments over the long term and hence yield higher pension returns[185]. The savings are protected, as the capital invested is guaranteed after a period of eight years. If decumulations occur during this eight-year period, there is a risk of capital loss. So far, the number of subscribers to Eurocroissance life insurance policies remains relatively low at only around 0.15% of total life insurance savings in 2020[186]. This may be explained by the complexity of the product and the lack of clarity in terms of returns. If so, this indicates how important it is for insurers to establish product offerings with clear structures that can be well understood by customers.

- **Products providing access to new types of investments**

  A new generation of insurance products now enables customers to invest, via their pension plan, in new asset classes that are not typically easily accessed by private individuals (eg, infrastructure) due to a lack of knowledge or to entrance barriers that are too high (eg, minimum investment amounts)[187].

  In Switzerland, for example, there is an insurance product that allows customers to divide their investment into both a real estate fund and a more secure asset class or investment

183 “Pension markets in focus: Preliminary 2021 data on pension funds”, OECD, June 2022
184 Major European insurers’ websites
185 Ibid
186 Ibid
187 Ibid

vehicle. In Germany (and other parts of the world), alternative investment opportunities are available for private individuals, including investments that are not traded on the stock exchange, such as in roads, wind farms or shopping centres. These alternative investments are often designed to generate recurring income in the future, for example, through rental income, interest or toll income. This regular income ensures visibility and continuity for the investor as opposed to the fluctuating returns and market-value changes they may face in capital markets. Insurers have also developed a set of customisable products in which the policyholder chooses between different portfolios and strategies. Changes can be made based on different options, both in terms of invested capital and new premiums.

- **Products turning illiquid wealth into liquid assets**
  Real estate pension products allow customers to convert their illiquid wealth (eg, housing) into liquid, directly useable cash or services. These can, for instance, take the form of access to retirement homes (housing options offering resident services such as meals, activities and healthcare) as well as other options.

Room for growth in reverse mortgage market

Reverse mortgage schemes, for example, are provided by both specialised reverse mortgage players or some banks. They provide older people with a way to monetise their housing to receive a regular monthly or annual income while staying in their homes. Overall, the ageing population and regulatory and market trends (eg, a stabilising regulatory landscape and improved market perception of such products) are favourable for the development of the reverse mortgage market. In the USA, penetration of the population over 60 is less than 0.1%, indicating room for growth. Currently, out of 0.9 million Americans eligible for reverse mortgages every year (citizens turning 62 with an income below US$100 000 per year and a minimum of 50% equity in their home), only approximately 50 000 buy them. Approximately 95% of the relevant population does not use these products due to a lack of awareness (resulting from a low level of financial education on the topic and their limited reach) and a limited willingness to buy them (due to negative public perception)[188]. However, despite these factors, volumes of mortgage-backed securities grew by approximately 63% between 2019 and 2021 from US$8bn to US$13bn[189].

In China, the life product payout can take the form of access to residence in a retirement home[190]. Individuals can buy a life insurance policy and gain access to a retirement home. When moving into the retirement facility, they are required to pay monthly fees of US$2 000 to cover meals, cleaning and other services. For now, these developments are targeted at the wealthy — those able to pay a minimum single premium of US$300 000 (payable upfront or in annual annuities over 10 years).

A third of China's 1.4 billion people will be 60 or older by 2050, and some Chinese counties have only recently started thinking about their pension systems[191]. This is why China's insurance regulator began actively encouraging insurers to implement such developments in 2014. Between 2015 and 2018, Chinese insurers spent more than US$10bn on building retirement communities[192]. Concurrently, several Chinese players have invested in US retirement housing assets to gain management experience and to earn additional returns[193].

188 2019 Survey of Consumer Finances, US Census Bureau, US Federal Reserve
189 HMBS Issuer League Tables, National Reverse Mortgage Lenders Association
190 Chuin-Wei Yap, "China's insurers try novel approach to elderly care: Building retirement homes", Wall Street Journal, 14 February 2018
191 "World Population Prospects 2022, United Nations
192 China Insurance Regulatory Commission
193 "China's insurers try novel approach to elderly care", Wall Street Journal, February 2018

The development of innovative and flexible products is a global trend that can be observed in many other places. In Mexico, for example, the "Miles for Retirement" programme is a saving-through-spending fintech helping people grow their retirement savings via an app[194]. Every member defines a percentage to automatically save from their own account related to how much they spend. In Colombia, the "Pensión Kids" product allows parents to make payments to build the foundation of their children's pension savings. Contributions are directed to the mandatory pension fund of the parents' choice[195].

In summary, one potential lever to narrow the pension gap is product innovation and offering customers additional flexibility. While customisable products offer the prospect of greater returns, their complexity is still a significant barrier to market acceptance. A similar conclusion can be drawn in relation to the new, more unconventional asset classes now available in emerging products. Despite their clear value proposition, products offering customers the possibility to convert illiquid wealth into liquid assets remain a niche market, only relevant for a (small) subset of the population.

Drive awareness of the need for pensions (including the gender pension gap and the long-term implications of individual savings behaviour)

Women receive 25% lower pension payments than men

Across OECD countries, consumers have generally low understanding of pension savings plans because they are complex and financial literacy is low[196]. Awareness is even lower among women, who receive, on average, 25% lower pension payments than men[197]. Pension planning requires an advanced level of financial literacy as it involves tax considerations, the valuation of assets and liabilities, and assumptions about future wages and individuals' longevity. Insurers might consider playing a role in promoting pension savings — providing clear and transparent information and guidance on the types of savings plans available. However, governments also have to take part in educating the public about the importance of and need for pension savings. The examples below illustrate how public campaigns could raise awareness of pension mechanisms.

- In 2009, the Singapore government introduced the Central Provident Fund Lifelong Income for the Elderly (CPF Life) annuity scheme to centralise longevity risks and provide Singaporeans with a lifelong pension income[198]. One of the main challenges the government faced in enrolling its citizens was a widespread lack of financial literacy. To counter this, it started promoting the new pension scheme in 2007, two years before its official launch. During this initial phase, citizens could familiarise themselves with the new system, leaving time for the government to address concerns and gaps in information.

  Currently, the system allows individuals to receive monthly payouts from retirement age (currently 65) to the end of life. In addition, CPF Life offers individuals various choices to tailor their annuity. Members can choose the desired amount of payout they wish to receive when retiring and the premium they are required to pay is adjusted accordingly. The programme started in 2009 on an opt-in basis and became mandatory in 2013. During the opt-in period, members were encouraged to join with a financial incentive of up to S$4 000 (US$2 800). To maximise enrolment, efforts were made to ensure that the CPF Life system was explained in a way that was understandable to all users. For example, technical terminology was

194 Millasparaelretiro.com
195 Fernanda Salas, "Miles for Retirement", Pensions Benefits & Social Security Colloquium presentation & paper, June 20217
196 "Financial education and saving for retirement", OECD
197 "Wide gap in pension benefits between men and women", OECD, March 2020
198 Rachel Wheeler, "Case studies in retirement system reform", World Economic Forum, May 2017

replaced by basic concepts (eg, “longevity insurance” was replaced by “lifelong income” due to the negative public perception of the word “insurance”). In addition, an extensive public engagement campaign was launched with a total budget of S$3m, including approximately 90 outreach events, a dedicated website, various call centres, online advertising, seminars and cartoons in public places.

To assess the impact of the campaign, an independent survey was conducted. It found that a daily average of 800 citizens reached out to CPF Life service centres, 100 contacted CPF Life call centres and 25 sent an email. Advertisement recall rates indicated that 69% of those surveyed had heard about CPF Life via the media. Approximately 90% of event participants said they could apply what they learned to real life. At the time of the survey, 40 000 Singaporeans — 1% of the total population[199] — had switched to CPF Life. In 2012, the number of CPF life policies (lifetime annuities) was 40 times higher than under the previous scheme[200].

- In Ireland, the Department of Social Protection launched a campaign between 2003 and 2008 to increase pension awareness among the population and, more broadly, to provide citizens with a robust educational foundation for pension planning. The campaign targeted specific groups, especially 25- to 39-year-old women (who historically had lower pension coverage than men), new graduates, workers in sectors with low pension coverage (eg, hospitality, farming), and international workers. The government allocated a budget of €500 000 per year over the first two years of the campaign, then increased the budget to €1m per year.

  The programme aimed to make pensions education as consumer friendly as possible. By using television as its primary means of communication, it achieved broad coverage and it was possible to ensure that a wide demographic was reached. Radio appeared to be the most cost-effective way to spread key campaign messages broadly. Cinema, out-of-home marketing and internet banners rounded out media coverage, regularly reaching young adults on a daily basis. The press provided the public with more details of the importance of pension plans.

  Pension awareness across the country increased from 60% in 2003 to 87% in 2007. However, despite an increase in pension coverage rates over the period of the campaign (from 58% of 35- to 65-year-olds in 2002 to 61% of the same group in 2012), coverage rates have not yet reached the targets initially set by the government. This might suggest that although public campaigns are necessary, they might not be the only measure needed to significantly improve pension coverage.

There are several other examples of public campaigns across the globe:

- More than two-thirds of citizens in the UK have multiple pension plans with different providers[201]. In April 2020, the Pensions Dashboard Programme was launched to enable users to access centralised information about their pensions online. After an ID check and consent approval, pension providers send pension information to dashboard providers that aggregate the data. The programme aims to support UK citizens in their pension planning[202].

- In Sweden, an orange envelope was introduced in 1999 as part of a reform of the national pension system. These annual statements, arriving by mail in an orange envelope, provide

199 A. Atkinson et al., “Lessons from national pensions communication campaigns”, OECD Working Papers on Finance, Insurance and Private Pensions, Number 18, 2012
200 Ibid
201 PensionsDashboardsProgramme.org.uk
202 Ibid

pension contributors and retirees with a fully comprehensive picture of their pension status, including the current value of different pension accounts, changes in value since the last update, latest contributions and a forecast of pension installments.

Between 2010 and 2018, the percentage of respondents that found the system difficult to understand decreased from 41% to 21% for those employed and from 33% to 20% for retirees[203]. Since introduction, the content and format of orange envelope letters have constantly evolved to suit the population's needs. In 2013, the Swedish Pensions Agency and private insurers jointly launched a website dedicated to individuals' pension monitoring, complementing the information shared in the printed version[204].

- In Denmark, an online tool, PensionsInfo, was launched, providing a comprehensive overview of all pension and insurance options available to citizens[205]. In 2021, 1.7 million users logged on 5.1 million times in total.

- In Poland, the government launched a campaign in 1999 to introduce and promote the mandatory pension system in the country. In the first two years of the campaign, public awareness went up from 40% to 60%.

- The Canadian Foundation for Economic Education (CFEE) publishes "Money and Youth", a guide to encourage the financial literacy of individuals aged 14 and above, distributed to homes and schools[206].

Lack of financial literacy hampers pension planning

For the most part, citizens often lack financial literacy and, as a result, do not get involved proactively in pension planning, which partly explains the existing pension gap. To reduce this gap, public institutions also have a role to play, as has been demonstrated by successful public awareness campaigns.

Encourage more people in the formal labour force to opt into pension schemes (including automatic enrolment)

Worldwide, there are typically two types of pension plans: voluntary plans and mandatory plans. Voluntary plans include both voluntary occupational plans, in which employers have the choice of whether to set up a pension plan for their employees, and voluntary personal plans, in which individuals can freely decide whether to join.

Coverage of voluntary occupational pension plans varies widely between countries (eg, 5% in Greece and 40% in Japan)[207]. 19 out of the 38 OECD countries have implemented mandatory pension plans. In 12 of those, the share of the working-age population now registered in such a plan exceeds 75%[208]. Two factors can explain this relatively low coverage rate. First, informal workers (who are not officially registered) do not contribute to pensions. Second, despite their mandatory nature, some industries are excluded from mandatory plans in some countries[209]. In certain countries, obligation is not determined at national level but at industry level: employers in particular industries establish pension schemes that employees must join.

203 Arne Paulsson, "Pension information in Sweden", Social Insurance Agency, Sweden
204 Ibid
205 "Financial literacy and transparency initiatives and tools in life and pensions", Danish Insurance Association, 2008
206 "Financial education and saving for retirement", OECD
207 "Coverage of retirement savings plans", OECD, 8 December 2021
208 Ibid
209 Ibid

Automatic enrolment schemes are increasingly popular

As a trade-off between voluntary and mandatory pension plans, automatic enrolment programmes are becoming increasingly popular to accelerate participation in pension plans[210]. They offer an alternative to voluntary programmes without automatic enrolment, which citizens might not be aware of due to limited financial literacy, and compulsory mechanisms, which could be politically infeasible[211]. Since 1992, nine countries have implemented such schemes[212]. A few examples that have shown the potential to be effective are detailed below.

- New Zealand

  Before the introduction of automatic enrolment, the pension savings market was underdeveloped: only 15% of the population actively saved in a private pension scheme[213]. In July 2007, KiwiSaver, an automatic pension enrolment programme, was introduced. It offers flexible solutions for pensions savings. When starting a new job, employees are automatically enrolled in the system with a minimum contribution of 3% of their pre-tax salary unless they opt out. Employers must contribute a minimum of 3% of their employees' pre-tax salary as the default level of contributions. The scheme's eligible plans are chosen from existing offerings from private companies.

  By June 2016, KiwiSaver had 2.6 million members or over 75% of the population aged 18 to 65[214]. Despite the programme's popularity, many employees and employers have continued making contributions only at minimum levels. There are concerns that those levels of contribution may not offer an adequate outcome for future citizens' pensions. Nevertheless, contribution levels have been kept low to encourage higher participation[215].

- Australia

  Australia's retirement system is based on three complementary pillars and is ranked as the sixth-best retirement system in the world[216]. The pillars are a universal public pillar, an automatic enrolment pillar for employees and a voluntary pillar.

  The first pillar, Age Pension, is a public pillar financed by general tax revenues, which provides basic benefits on individual revenues and assets for those over 65[217]. As of 2021, around 2.6 million Australians — approximately 62% of the population aged 65 and over — regularly received Age Pension installments[218].

  The second pillar consists of funded individual pension accounts provided by superannuation funds[219]. In 1992, Australia introduced compulsion when it made contribution into the superannuation fund system mandatory for all employees between 17- and 70-years-old earning more than A$450 (US$310) per month. This system requires a minimum contribution to a superannuation fund. The employers' contributions are set at 9.5% of wages, with a stepwise increase to 12% by 2025, subject to an annual cap of A$50 000[220]. On top of this, employees can make additional voluntary contributions. The country has several different types of superannuation funds, which are offered to individuals and employers by financial

210 Ambrogio Rinaldi, "Auto-enrollment in private, supplementary pensions in Italy" in "Improving financial education efficiency: OECD-Bank of Italy symposium on financial literacy", OECD, 27 October 2011
211 Ibid
212 "Coverage of retirement savings plans", OECD, 2021
213 Hayley James, "The impact of automatic enrollment in Italy, New Zealand and the USA", Briefing Note 99 (PhD Series No.2), Pensions Policy Institute, UK
214 Ibid
215 Ibid
216 Mercer CFA Institute Global Pension Index 2022
217 Pensionfundsonline.co.uk
218 Thenewdaily.com.au
219 Pensionfundsonline.co.uk
220 Apra.gov.au

service providers. As workers are able to choose their pension fund, private funds compete for contributions and have an incentive to outperform their competitors. Employer contributions are tax deductible up to a certain limit.

The third pillar involves additional individual contributions to superannuation funds or to retirement savings accounts (RSAs). RSAs are low-cost pension schemes offered by deposit-taking institutions or life insurance companies. They operate under the same tax rules as superannuation accounts. Overall, the combination of the three pillars has contributed to an increase in the assets under management of 11.3% per year over the past 20 years — the strongest growth rate in pension assets among comparable countries[221]. These amounts include both fund returns and rising contribution levels made by a growing workforce. For women, average superannuation accounts increased by 50% between 2008 and 2018 (from A$20 000 to A$30 000), while they increased by 157% for men (from A$30 000 to A$77 000). A substantial gender gap remains, with average female account balances valued at approximately A$15 000 below that of males[222]. Addressing this gap might be the next focus for Australia to further improve its pension system.

- USA

In the USA, 401(k) plans enable citizens to save for their retirement by including tax advantages: both money invested and associated returns are exempted from taxes until they are withdrawn. The capital comes from the savers' deposits, which are deducted from their salary (and not subject to income tax) and from employers' contributions. This capital is placed in an investment portfolio and, once retired, savers withdraw their money, which is then subject to tax. 401(k) savings plans increasingly offer automatic enrolment coupled with higher employee default deferral rates (deferral rate is the portion of an employee's wages deducted from their salary that contributes to the 401(k) pension plan)[223].

Auto-enrolment increased new-hire participation to 91% against 28% without

Automatic enrolment was made possible in 1998[224]. If employees want to leave, they need to opt out. Between January 2017 and December 2019, 90% of automatically enrolled new hires were still in their employer pension plan after three years[225]. In addition, between 2005 and 2021, following the 2006 Pension Protection Act (PPA), the number of companies that implemented automatic enrolment rose from 22% to 74%. The PPA provides a tax incentive for sponsors, automatically enrolling eligible employees at a minimum contribution rate of 3%[226]. Among new hires, participation rates increased to 91% in schemes with automatic enrolment compared with 28% in those without[227].

Despite this growth in participation, employees might think that the default rate set by the employer is the right one. Thus, they may not take the initiative of increasing their deferral rate. For example, in 2018, employees engaged in an automatic enrolment programme had an average deferral rate of around 8%, ie, approximately 0.5pp below opt-in participants[228]. To mitigate this challenge, employers can trigger automatic escalation, which increases the contribution rate by 1% every year until the employee reaches 8-10% of their pre-tax salary[229].

221 "Global pension assets study", Willis Towers Watson, 2022
222 Apra.gov.au
223 "Automatic enrollment's long-term effect on retirement savings", T. Rowe Price, 7 July 2022
224 Ibid
225 Institutional.vanguard.com
226 "Retirement savings", T. Rowe Price, 2022
227 Jean Young and Jeffrey Clark, "Automatic enrollment: The power of the default", Vanguard Research, March 2018
228 "Retirement savings", T. Rowe Price, 2022
229 Pencorp.com

- UK

  In 2007, the UK government decided to support the millions of citizens not saving enough for their retirement by introducing the Pensions Act[230]. As one key measure, automatic enrolment was introduced in 2012 to encourage individuals to save enough money during their working life and thus be able to maintain their desired lifestyle when retiring. The other objective was to limit the burden on employers and pension providers of implementing schemes. The reform requires employers to automatically enroll workers into a pension scheme and to provide a minimum contribution. Employees over 22 years old, earning more than about £10 000 (US$12 000) per year (thresholds are revised annually) are eligible.

  The automatic enrolment scheme was deployed in several phases between 2012 and 2018, starting with the largest employers. Since 2017, all businesses employing at least one person must provide a workplace pension option. Minimum contributions have evolved: since 2019, minimum contributions amount to 8% of employees' wages. At least 3% must come from the employer and the rest from the employee. Employees have one month to opt out of the enrolment and get a refund on contributions[231]. However, if employees opt out, employers have an obligation to re-enroll them automatically after three years[232]. Since the launch of automatic enrolment, approximately nine million workers have been automatically enrolled, and 900 000 employers have had their automatic enrolment duties declared compliant[233]. In 2020, 78% of employees participated in a pension savings scheme compared with 47% before the introduction of automatic enrolment.

  With regard to women, pension participation rose from 40% to 73% between 2012 and 2016. Since the introduction of automatic enrolment, two million fewer UK citizens are considered to be undersaving for their retirement. In 2018, the annual total amount saved reached £90.4bn, representing an increase of 8% on 2017 (a £7bn increase). When the launch of this employer obligation was announced, concerns were raised regarding its potential administrative burden. However, a sample of employers interviewed in 2016 and 2018 stated that the costs and time related to implementation were lower than initially expected[234].

2 million fewer UK citizens undersaving since auto-enrolment was introduced

A few other countries have introduced automatic enrolment programmes into retirement savings plans with an opt-out option: Italy (2007), Turkey (2017), Lithuania (2019) and Poland (2019). In Italy, private sector employees have six months to choose one of the following options for their pre-tax severance pay (approximately 7% of pre-tax income): transfer the money to a pension fund; opt out and keep the money; or do nothing, this being considered a tacit agreement of transfer into the fund. As of 2010, 23% of the Italian workforce were enrolled in a pension fund[235].

Voluntary systems are based on the ability of individuals to make informed decisions. Given the complexity of pension products, this requires an advanced level of financial literacy. However, mandatory schemes do not take individual preferences into account and are not always feasible from a political standpoint. Thus, automatic enrolment could be seen as a compromise between the two systems described above, relying on citizens' inertia and tendency to procrastinate[236]. They

230 Automatic Enrolment Evaluation Report 2019, UK Department for Work & Pensions, 24 February 2020
231 Thepensionregulator.gov.uk
232 Ibid
233 "Automatic enrolment review 2017: Maintaining the momentum", UK Department for Work & Pensions, 18 December 2017
234 "Automatic enrolment: Qualitative research with new employers", UK Department for Work & Pensions, Interim report, February 2019 and "Automatic enrolment: Qualitative research with small and micro employers", UK Department for Work & Pensions, October 2017
235 Hayley James, "The impact of automatic enrollment in Italy, New Zealand and the USA", UK Pensions Policy Institute, PPI Briefing Note Number 99 (PhD Series No 2)
236 Ambrogio Rinaldi, "Auto-enrollment in private, supplementary pensions in Italy", OECD, 2011

generate higher pension participation rates, resulting in higher savings outcomes. However, these systems include default contribution rates to savings plans (often set by the state) and both employers and employees rarely raise them to fit individual needs. As a consequence, automatic enrolment schemes may result in participants saving less than those who voluntarily opt in and set their own deferral rate.

Introduce tax incentives for asset allocation and savings

Tax and non-tax financial incentives used to encourage pension saving

One way to increase pension savings on certain asset classes is to offer financial incentives[237]. Countries use two types of financial incentives — tax and non-tax — to encourage individuals to save for retirement[238]. Tax incentives can vary depending on the contributor (employer or employee), the nature of the contribution (mandatory or voluntary) and the type of pension plan (personal or occupational). In addition, some countries have introduced more direct financial incentives to encourage contributions to pension plans, especially for those on low incomes. Non-tax incentives include direct, fixed contributions from governments or employers to the individuals' pension accounts, ie, without any form of taxes involved.

- In France, new savings products were introduced in 2019, following the reform of retirement savings introduced by the "Plan d'action pour la croissance et la transformation des entreprises" (PACTE) law[239]. The PACTE reform introduced "Plan d'épargne retraite" (PER) pension plans, all governed by the same rules and all benefitting from harmonised tax incentives. The objective of this reform is to reinforce the accessibility and attractiveness of long-term savings, resulting in additional funding for companies[240].

  Before the new law was introduced, pension saving was underdeveloped in France: in 2018, pension saving assets totalled €230bn, compared to €1 700bn for life insurance (excluding pension products) and €400bn for other savings products[241]. This was mainly due to a complex and fragmented range of products subject to different rules and taxes, which was unhelpful for companies that were struggling to offer their employees attractive pension-savings products.

  The new PER comes in three forms: the individual PER, the collective company PER and the mandatory company PER. The individual PER can be joined via a bank or an insurance company. The collective company PER is a plan open to all of a company's employees, without any obligation to join. It can be invested in by employees or by employers. The compulsory company PER is a plan that all or certain categories of employees are obliged to join. It can be invested in by the employees or by the employer, on a voluntary or compulsory basis, depending on the company agreements. In the event of a change of employer, rights are transferable from one PER to another, and transfer fees are strictly controlled. In the case of a transfer after five years, the transfer is free. Before five years, the fees charged amount to a maximum of 1% of the savings. Savings can be invested in variable-return products and fixed-return products (through discretionary management by default) and are available for a range of life events (eg, the purchase of a main residence).

  At retirement, savings can be paid out as an annuity or as a lump sum. For all types of PER, payments can be deducted from the income tax base up to a maximum of €33 000. For example, if an individual invests €5 000, then taxable income will be reduced by the same

237 "Pensions at a glance 2011: Retirement income systems in OECD and G20 countries", OECD, 2011
238 "Financial incentives for funded private pension plans: OECD country profiles 2021", OECD, 2021
239 Start.lesechos.fr
240 Ibid
241 Economie.gouv.fr

amount, resulting in €1 500 in income tax savings (based on a 30% revenue tax rate). When withdrawing the money, the capital and interest are taxed, so the transaction is favourable if the tax rate at withdrawal is lower than that at the time of payment (which is usually the case). For company PER, the employer contributions benefit beyond the income tax exemption limit (10% of gross annual employee income) and the exit annuity after deductions (either 10% or the cap amount) is subject to income tax).

Since the introduction of PERs, deposits grew at 242% CAGR between Q4 2019 and Q4 2021 (from €6bn to €70bn). More than 118 000 companies have adopted the PER scheme[242]. However, the PER is not a liquid savings product. Savings can be withdrawn before the legal retirement age only under certain conditions, such as buying a main residence or suffering a disability. Financial institutions charge fees on deposits (up to 5% but mostly under 3%) and management fees of around 1% per year.

More than 118 000 companies adopted France's PER pension plans

- Iceland also offers a range of tax incentives to encourage pension investments[243]. The first type of tax incentives are related to occupational contributions. Both employer and employee contributions to occupational pension funds are tax deductible. Employees can deduct pension contributions from their income tax of up to 4% of their salaries. Beyond that 4%, contributions are taxed at the regular income tax rate. For employers, there is no limit to the deductibility.

  Regarding personal pension savings, the minimum contribution for individuals is 2% of their wages. This contribution is then complemented by the employer with an additional 2% of the employee's salary. Individual contributions to personal pension funds are deductible from taxable income up to 4% of the salary. The employer's matching contribution is entirely deductible. Pension income is taxed at regular wage income and subject to individuals' income tax rate.

  However, since 2014, active members in voluntary personal pension plans can withdraw assets tax free to finance residential housing debt of up to ISK 1 000 000 (US$7 000) each year for up to 10 consecutive years for couples. Individuals who do not own their main place of residence can withdraw up to ISK 500 000 per year. Authorisations for those tax-free withdrawal exceptions were initially supposed to end in 2019, but were extended for an additional 10 years. In practice, across the country, the most common contribution rate to individual pension plans is 6% of salary, both for the employer and employee.

  The tax incentives contribute to making Iceland's pension system one of the most effective in the world in terms of performance (standard of living of retirees), sustainability (long-term financial balance) and integrity (clarity for citizens)[244]. Pension assets are currently twice Iceland's GDP (the highest ratio in the world) and have doubled since the financial crisis of 2008. Furthermore, the country has the OECD's lowest poverty ratio (measured in terms of income) among people aged 66 and over: 2.8% versus an OECD average of 13.5%. In addition, the gender gap is only 12%, which is among the lowest of the OECD countries. Since it is so successful, the country's pension system is currently facing asset management challenges[245]. The government is considering allowing investment managers

242 "Observatoire de l'épargne BPCE," France Assureurs, 19 July 2022
243 "Financial incentives for funded private pension plans", OECD, 2021
244 David Knox, "Mercer CFA Institute Global Pension Index: Pension reform in challenging times", Mercer and CFA Institute, 19 October 2021
245 Ragnhildur Sigurdardottir, "Iceland's gigantic pension fund is creating a headache at home", Bloomberg, 6 December 2021

to diversify the portfolio even more, buying more securities abroad. The law currently limits the share of overseas investments in pension assets to 50%.

Many countries have tax incentives for pension saving

Around the globe, many countries offer a range of tax incentives to encourage both individuals and employers to invest in pension systems. All 38 OECD countries have set up tax arrangements. In Chile, workers contribute up to 10% of their salary to mandatory personal pension accounts and these contributions are tax deductible. In Israel, employer contributions up to 7% of salary are not included in the taxable income of the employee. In South Korea, employer contributions into occupational pension plans are deductible from corporate tax. Tax incentives appear to be necessary but not sufficient for a well-functioning pension system.

In summary, a large majority of states contribute to the pensions of their citizens by offering tax incentives to both employers and employees to support pension plans. As seen in the examples above, tax benefits can exist at different stages in the pension system, including contributions during the active life of the worker, returns on investment, funds accumulated and pension income. Beyond tax, incentives can also take the form of other financial incentives such as direct instalments from the state. On top of such financial incentives, public stakeholders can employ additional levers to reduce the pension protection gap, such as increasing the retirement age.

Additional levers

Decrease operational and distribution costs

This can be done, for example, via the digitalisation of back-end processes. According to Oracle, a program to digitise insurance processes can reduce costs by 65%, decrease turnaround times by 90% for key insurance processes and improve conversion rates by more than 20%. This would help to improve cost effectiveness and therefore potentially increase the returns offered by pension plans, which could in turn help reduce the pension gap[246].

Encourage labour force participation

Encouraging a higher share of the labour force to enter the formal job sector as opposed to the informal one, hence making a higher share of the working-age population eligible for contributions to Pillar I and II pensions, is particularly important for emerging markets. In some countries, up to 80-90% of the workforce in certain industries do not have a formal contract. Likewise, encouraging higher labour force participation in general — for example, after maternity leave and at post-pension age — can be a lever for developed countries[247].

Increase contributions per person

Governments are considering multiple levers such as tax incentives, matching contributions, increasing rates, and auto-enrolment for mandatory contributions[248]. For example, auto-enrolment has been shown to significantly boost pension coverage. In the UK, the introduction of auto-enrolment into a voluntary plan in 2012 resulted in approximately 20 million more Britons contributing to a pension by 2020[249].

246 “Digitizing insurance from the inside out: The back-end solution to winning millennials”, Oracle
247 Ronald Klein, “The pension gap epidemic: Challenges and recommendations”, The Geneva Association, October 2016
248 Dorothée Rouzet et al., “Fiscal challenges and inclusive growth in ageing societies”, OECD, 10 September 2019
249 Sarah O’Connor, “When a pensions policy is a resounding success, we should say so,” Financial Times, 25 April 2022

Increase retirement age

In 20 out of 38 countries[250], the retirement age for the generation currently entering the labour market is expected to increase from an average of 64.2 in 2020 to 66.1 by 2064, according to the OECD[251]. Some incentives to retire later have already been introduced. In Japan, for example, private firms are obliged by law to retain workers who wish to continue to be employed until the age of 65.

Incentives to retire later are being introduced

Concluding remarks

The peculiarity of the pension gap, sized at approximately $1trn a year, is that even the most drastic and unpopular legislative measures — such as significantly increasing the retirement age — would only limit the gap but not fully close it[252]. Tackling the pension gap requires the involvement of a wide range of stakeholders, including both private and public players.

250 “Pensions at a Glance 2021”, OECD, 2021
251 Ibid
252 “Understanding and addressing global insurance protection gaps”, The Geneva Association, April 2018

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