Demographics & Retirement Research

Global Demographics & Retirement Implications

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Key Points

- Multiple demographic changes are having a big impact on how people work, consume and save. This creates challenges for governments, institutions and individuals in ensuring retirement systems are sustainable
- We highlight significant demographic heterogeneity across ten advanced countries (Australia, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, the UK and the US) and show how changing age boundaries can lower old-age dependency ratios. We also explore the role demographic differences play in explaining differences in consumption, savings, labour, retirement and debt patterns across countries
- Creating sustainable systems that reflect modern demographics requires policy changes, e.g., abolishing mandatory retirement ages, making state benefits more flexible, promoting gender equality, adopting selective immigration and encouraging lifelong learning
- The shift towards Defined Contribution pensions risks increasing income inequality in retirement, so policy changes must account for the increasing heterogeneity of the population
- Offering retirees appropriate retirement income options and default solutions should aid the transition from the savings phase to the retirement phase

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STATE STREET GLOBAL ADVISORS

Introduction

Global changes in demographics, behaviour and policy are dramatically transforming the retirement landscape. In this report, we examine how demographics, in particular, are having an impact on the growth and evolution of retirement savings and pension systems. As articulated by Peter Drucker[1] and others, there is a growing consensus that most long-term pension promises and entitlements are now unsustainable and that reform is urgently needed.

Our view of demographics is a broad one. It encompasses a range of "consumer and worker characteristics" that go beyond the narrow interpretation of demographics as being solely age-related. Evidence from various sub-disciplines of economics shows that people of the same age can behave very differently in terms of consumption, savings and risk-taking due to differences in gender, education, income, family background, wealth and the broader environment. The aggregated economic and social effects of this demographic heterogeneity must therefore be included in any analysis.

In this report, we select ten advanced countries and consider the implications of their changing demographics for labour markets, consumption patterns, savings rates and retirement systems. We have long believed that the standard age-based definitions for assessing an individual's life cycle are outdated. The growth of multi-generation families and multi-stage life cycles requires a rethink of the classic three-stage models of academics P.A. Samuelson, F. Modigliani and A. Ando[2] in the 1950s and their application by actuaries.

The three stages of the conventional model are: 0–14 years (young, non-workers), 15–64 years (working age) and 65+ years (retirees). This was appropriate up until the 1970s when the number of retirees was still small and the average retirement period below 15 years. Medical and health advances have since propelled longevity to historically unprecedented levels. At the other end of the life cycle, before the early 1970s, most people did not pursue higher education. In today's better educated, technologically adept world, people in advanced countries (and in many developing countries) enter the labour force in their early twenties, or mid-twenties in the more advanced Nordic countries.

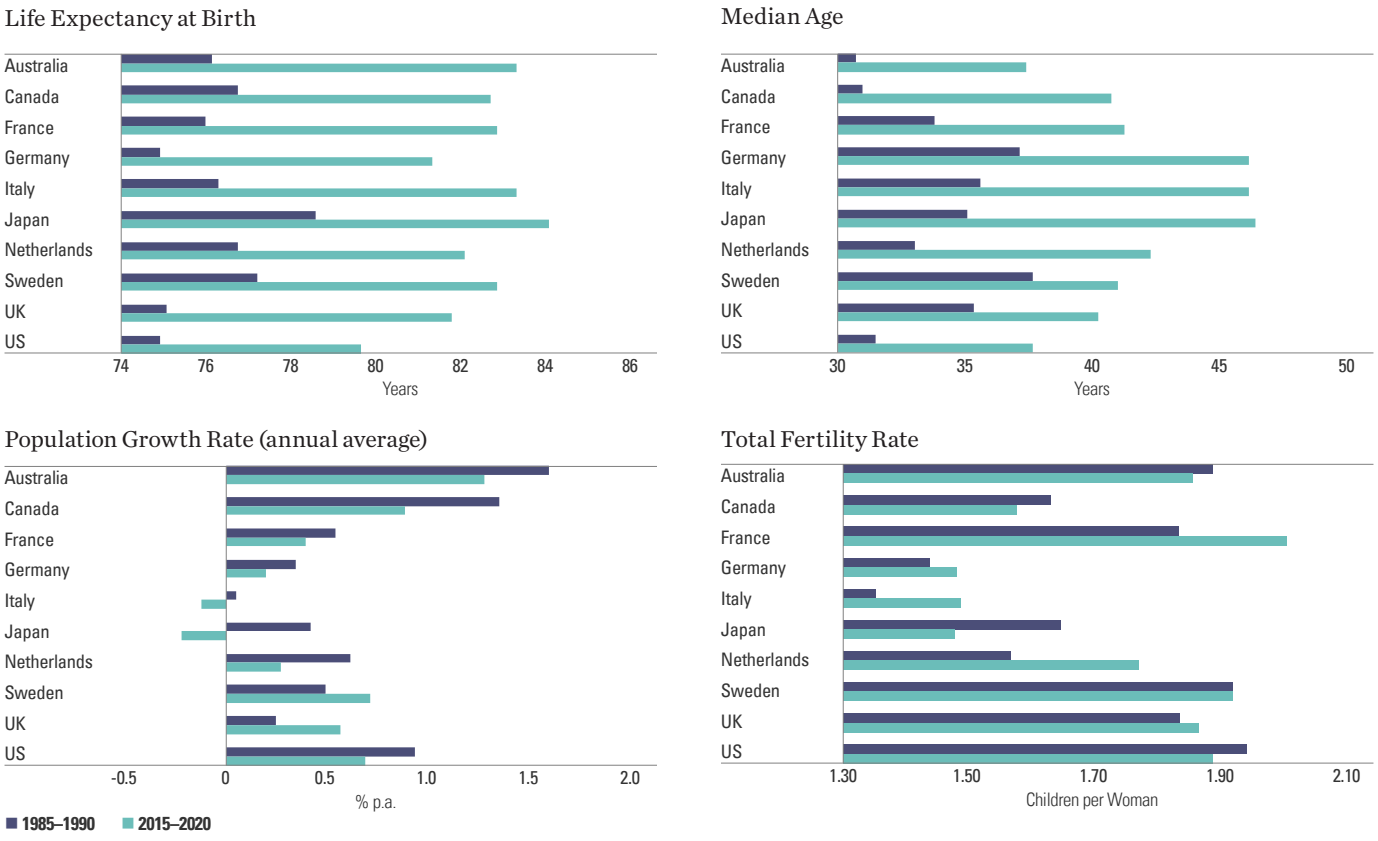
Such demographic and behavioural shifts are triggering the need for new life cycle models and ways to fund retirement. As a result, policy and investment research[3] has recommended abolishing mandatory retirement ages and introducing flexible retirement. This is now happening in some advanced countries and in some progressive emerging countries. In this report, we examine the underlying demographic data in these countries, how traditional models should change to reflect modern reality and other ways of ensuring that pension systems are sustainable.

1. The Evolving Demographic Landscape

One of the major challenges for modern retirement provision is that standard frameworks have not kept pace with the reality of demographic changes. People are adapting as their environments become increasingly technical, globalised and heterogeneous, but neoclassical economic and financial models continue to be based on old-style assumptions of representative rational consumers and investors. However, advances in the fields of economics and finance are leading to the acceptance of not perfectly rational behaviour, as well as demographic heterogeneity.

In this section, we examine how the demographic landscape has evolved in the ten countries we have chosen: the US, the UK, Germany, France, Italy, Japan, Sweden, the Netherlands, Canada and Australia. In later sections, we consider the impact of this evolution on their retirement systems. The first point to note is that, although all of these economies are advanced, their core demographic indicators are not uniform (see Figure 1). This reflects differences in both individual behaviour and pension, healthcare and welfare systems which contribute to life expectancy, fertility rates, living standards and population.

Figure 1: Changes in Core Demographic Indicators



Source: UN, SSGA Demographics.

Due to the core demographic differences between these countries, it is important to avoid grouping them into single bloc which could lead to a simplistic analysis. Instead, we observe the following:

Life Expectancy at Birth: While average life expectancy at birth has increased by six years since 1985 across these countries, individual nations vary significantly. Life expectancy in Australia has increased the most from 76.2 years in 1985 to 83.2 years in 2015. In contrast, the US has the lowest life expectancy at birth (79.6 years in 2015) and has seen the smallest increase from 74.9 years in 1985.

Median age: The average Japanese (46.3 years), Italian (45.9 years) and German (45.9 years) are almost 10 years older than the average US person (37.6 years).

Population growth: Australia and Canada have high annual population growth with 1.3% and 0.9% for the period 2015–2020, while Japan and Italy show negative growth with -0.2% and -0.1% respectively.

Fertility rates: Since 1985, total fertility rates have been low across all countries. Japan, Germany and Italy have the lowest rate at 1.5 children per woman. However, the changes in fertility rates have not been unidirectional across all countries, reflecting the impact of national policies and institutions on individual behaviour.

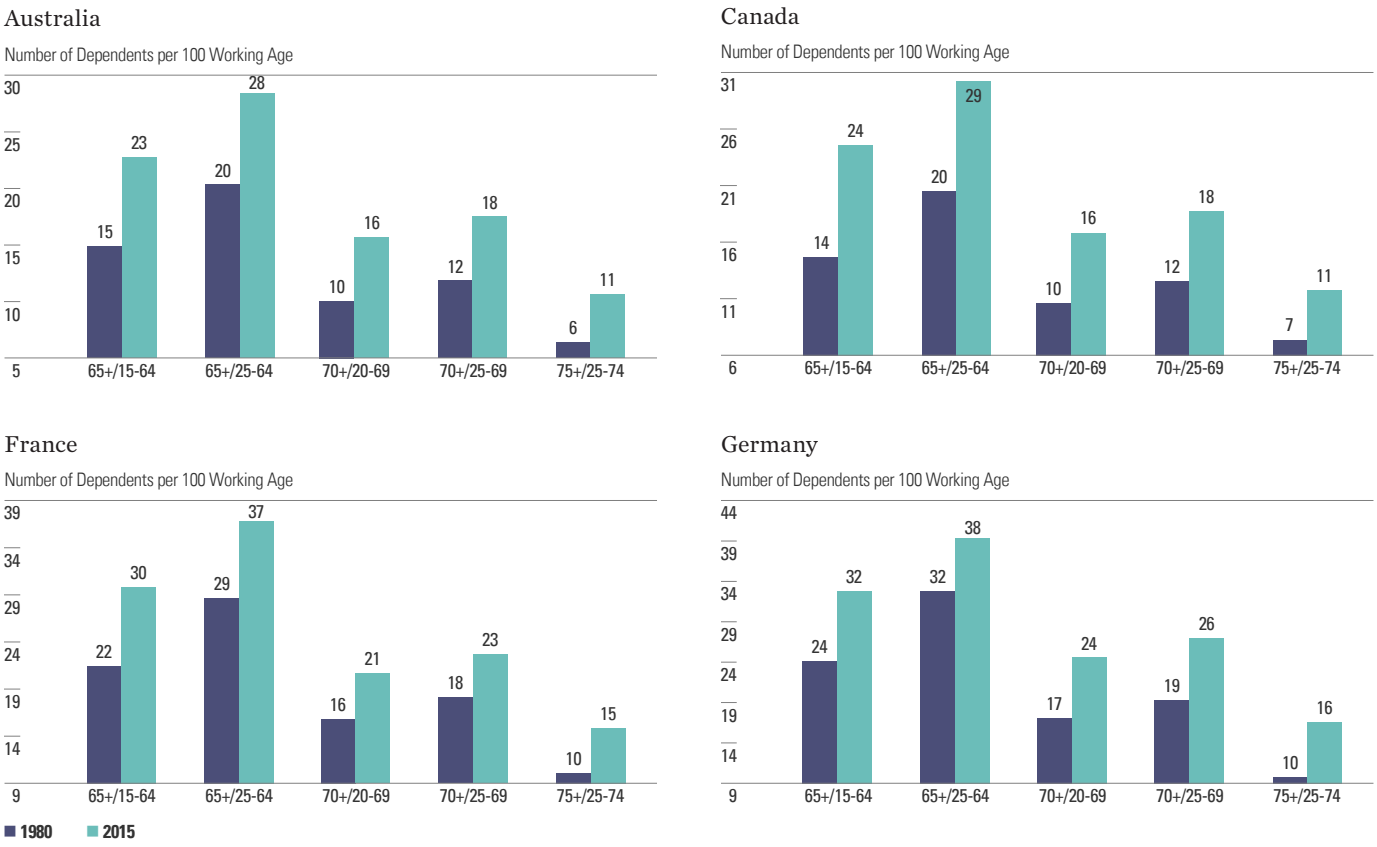
2. Changing Age Boundaries for Dependency Ratios

Given the changes in life expectancy and median ages presented above, the standard definitions of labour market entry at 15 and exit at 64 appear to be out of date. So what would happen if we changed them to reflect the current demographic reality? Figure 2 demonstrates the impact of different working age ranges on old-age dependency ratios (i.e., the size of the working age population versus the size of the elderly population they support).

We compare the old-age dependency ratios using the following age boundaries:

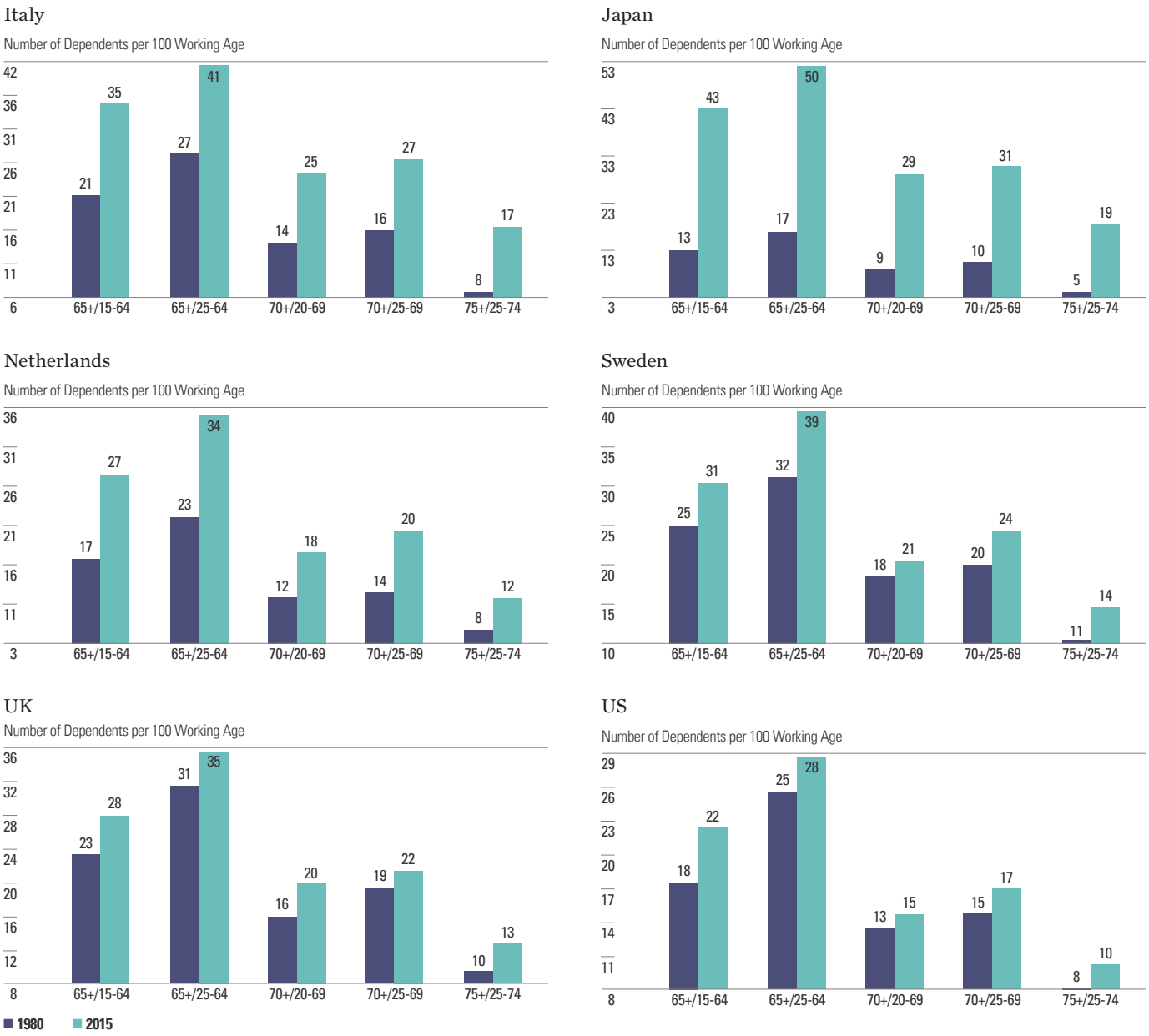
- 65+/15-64: the traditional ratio
- 65+/25-64: captures delayed labour force entry as in the Nordics
- 70+/20-69: reflects the type of ranges seen in Japan, Mexico and Korea
- 70+/25-69: the most realistic ratio over the next ten years
- 75+/25-74: a likely outcome if the quality of health beyond 65 years improves everywhere allowing most people to be physically capable of working until 74; this could be feasible if more people start living into their 90s and beyond

Figure 2: Varying Age Boundaries and Old-Age Dependency Ratios



Source: UN, SSGA Demographics.

Figure 2: Varying Age Boundaries and Old-Age Dependency Ratios (cont'd)



Source: UN, SSGA Demographics.

While all of the age boundary definitions illustrate an increase in ageing since 1980, the conventional old-age dependency ratio of 65+/15–64 indicates the most dramatic rise. Within that bracket, Japan stands out as the country with the highest dependency ratio. The number of people aged 65+ for every 100 people of working age was 43 in 2015, more than triple the 13 in 1980, reflecting longevity increases and fertility rate declines. The corresponding numbers for EU countries have also increased and are now very high. In 2015, Italy, Germany, Sweden and France respectively had 35, 32, 31 and 30 elderly dependents supported by every 100 people of working age.

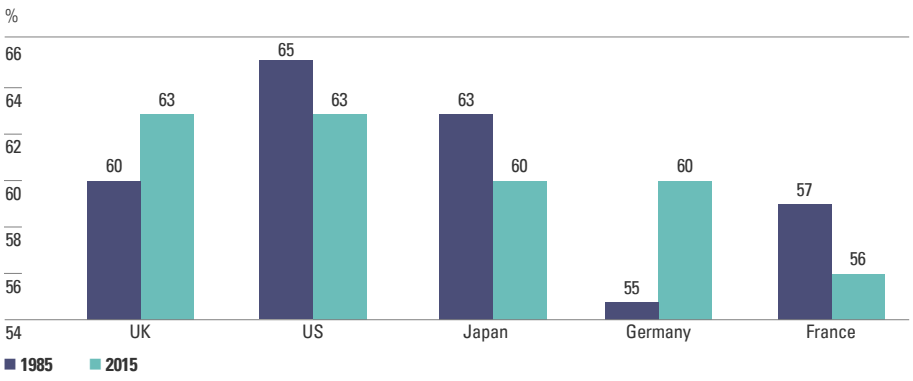
However, if the retirement age is increased from 65 years to 70 and 75 years, the number of elderly dependents per 100 workers falls considerably, even if the age at which people start working rises from 15 years to 20 and 25 years. **By modifying the age brackets to use more realistic assumptions, the dependency numbers could be halved** (e.g., the dependency ratio in Germany would fall from 32 to 16 elderly dependents per worker and in the US would fall from 22 to 10). Even countries with younger populations such as Canada and Australia could benefit — they have lower dependency ratios but have seen them rise more quickly in recent decades.

Assuming that everything else remains unchanged, the latter indicates a much lower burden on governments and younger generations. This would require the creation of more jobs to accommodate those in the modified working age groups, a more likely possibility in a period of economic growth.

Labour Force Participation — Male and Female

The previous section showed how dependency ratios adjust with changing patterns of labour force participation, particularly later entry into the workforce and later retirement. In this section, we review how participation trends have changed over time. We consider labour force participation rates in five advanced countries: Japan, the US, the UK, Germany and France. Figure 3 shows how overall participation has risen or declined moderately since 1985.

Figure 3: Total Labour Force Participation — 1985 v. 2015



Source: UN, SSGA Demographics.

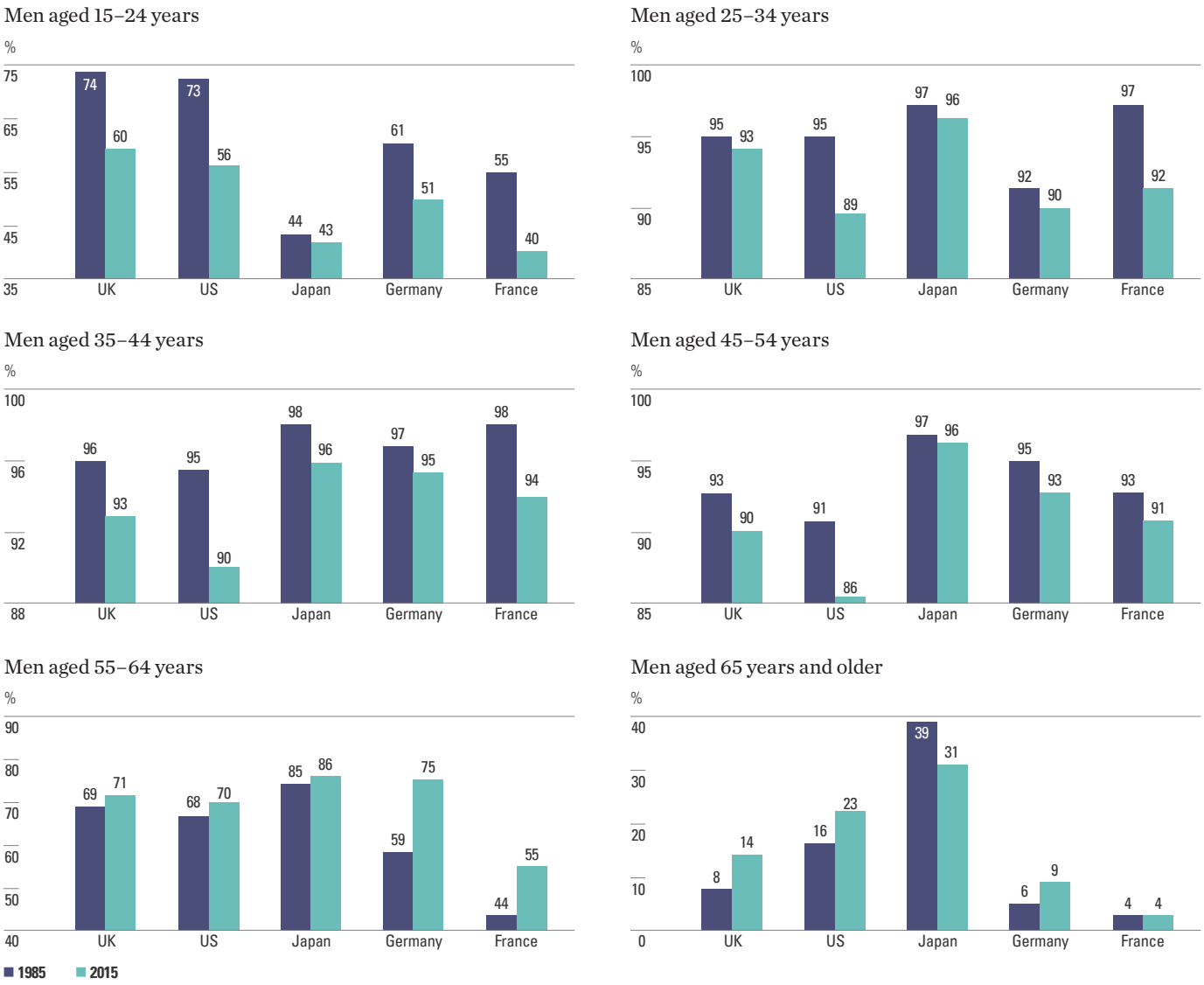
We then break these figures down between male and female. We use male data to show trends within age groups and across different countries only because historically there have been more men than women in the workforce.

Male

Over the last 30 years, there has been an almost universal decline in the number of men participating in the labour force. In all countries (except Japan), the sharpest drop in participation has been in the youngest age group (15–24 years). This was mainly driven by more years in education, an economic shift from agriculture to manufacturing and services and higher agricultural productivity.

Figure 4 shows that the US has experienced the biggest decline in labour force participation rates for this age group from 73% (1985) to 56% (2015), followed by France from 55% (1985) to 40% (2015) and the UK from 74% (1985) to 60% (2015). Labour market shifts have led employers to seek out first-time employees with higher levels of education and skills than in previous generations.

Figure 4: Male Labour Force Participation Rates (across different age groups)



Source: ILO, SSGA Demographics.

The labour force participation rates for other working age groups including 25–34, 35–45 and 45–54 years have also decreased across all these countries since 1985, although the declines have been less steep than that of age group 15–24. Again, the most significant change occurred in the US across all groups. In particular, the US labour force participation rate for 25–34 year olds has dropped by 6% from 95% in 1985 to 89% in 2015 while in Germany and Japan the decline was only 2%.

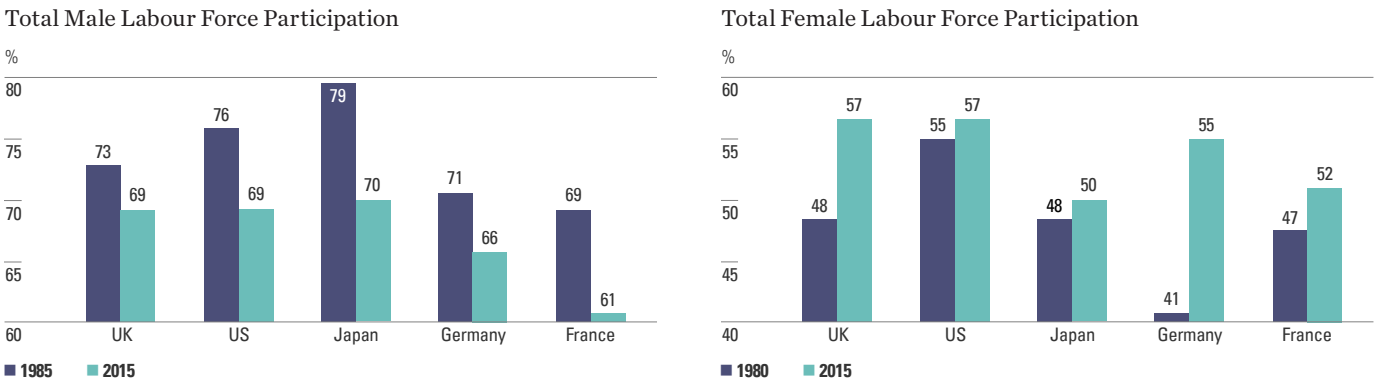
In contrast, the participation rates of those in the oldest working age group (55–64) have increased in all countries, most dramatically in EU countries such as Germany (from 59% in 1985 to 75% in 2015) and France (from 44% in 1985 to 55% in 2015).

As advocated here and elsewhere,[4] there are also more people working beyond the traditional retirement age. For example, the labour force participation rate for men aged 65+ in the US has risen by 7% from 16% (1985) to 23% (2015). There have been similar increases in the UK (6%) and Germany (3%) over the last three decades. Given improvements in healthcare and working conditions, and the shift from manufacturing to services, this trend is likely to continue across developed and some developing countries.

Female

While male labour participation rates have declined sharply over the last 30 years, female participation rates have increased (Figure 5). In Germany, for example, the 14% increase in female participation has offset the reduction in male labour force participation and helped increase the total rate from 55% in 1985 to 60% in 2015. Moreover, across the G7 countries, the number of female graduates is now higher than that of males, and in most countries, women now outlive men by three to five years. Because of these factors, we expect this trend to continue, especially as the gender bias in favour of men diminishes.

Figure 5: Male v. Female Labour Force Participation Rates



Source: ILO, SSGA Demographics.

3. Macro Implications of Demographic Changes

This section examines the impact of demographic shifts on economies and pensions. It looks at changes in the way people consume and save and how they are adapting to increasing longevity.

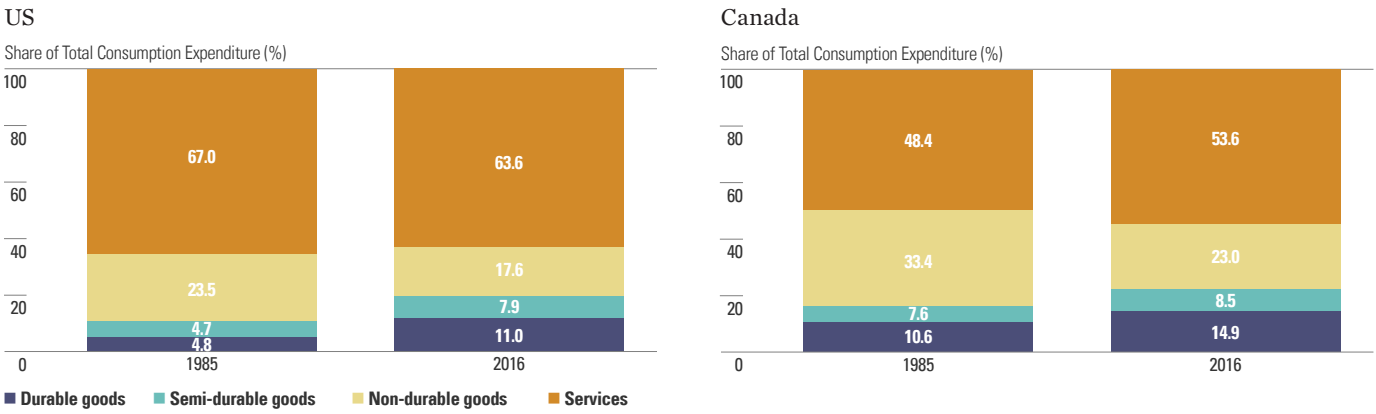
Consumers and Savers[5]

An individual's consumption and savings patterns are affected by a number of characteristics: age, gender, country, education, health, family background and environment. In addition, globalisation and economic progress have altered these patterns across the world.

Past research has tended to document the changing nature of consumers and savers[6] as it affects aggregate GDP and capital flows.[7] These days, more micro economic trends are observable. Not only are people living longer and having fewer children but their behaviour is changing too.[8] While total consumption expenditure in advanced countries accounts for a relatively similar proportion of GDP (60+%) compared to 20 years ago, underlying spending patterns exhibit much greater divergence, as demonstrated by changes in the four elements of consumption expenditure: non-durables, semi-durables, durables and services. These components exhibit different elasticities with respect to incomes and vary over the business cycle (e.g., spending on durables tends to fall during recessions, see Figure 11 in Appendix).

Figure 6 shows how these components have changed over time (for illustrative purposes, we show only US and Canada data). Services expenditure accounted for the largest share of household consumption in both countries in 2016, followed by that of non-durables, durables and semi-durables. However, compared to 1985, the shares of services and non-durables have reduced significantly. Spending by different age groups also varies in terms of relative consumer expenditures on clothing, food, healthcare, transport etc. and across countries (see Figure 12 in the Appendix).

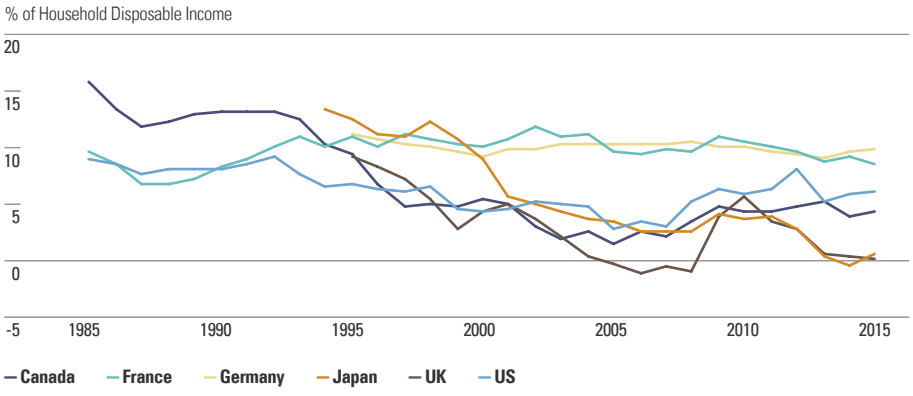
Figure 6: Household Consumption Expenditure by Component (2016 versus 1985)



Source: OECD, SSGA Demographics.

Trends in household savings rates too vary over time and by country, but are typically trending lower (Figure 7). Some countries such as the US and the UK have experienced greater volatility than others such as Germany and France where savings rates tend to be higher. We believe that all countries need to increase household savings to help defray longevity-related health and pension expenditures. However, there is a trade-off between savings and consumption. The more people save, the less they tend to consume, leading to lower GDP. Changes in consumption and savings patterns also affect capital flows, inflation and the current accounts and fiscal positions of countries with open economies.

Figure 7: Household Savings Trends as % of GDP



Source: OECD, SSGA Demographics.

Employment and Labour Force

As longevity has increased and life cycles have changed, individuals and families have changed their work patterns, while still responding to changing incentives over the business cycle.

Lifelong learning, changing skill requirements and the absence of guaranteed lifetime employment are resulting in individuals working for multiple employers in a variety of roles. In addition, more people are able to work flexibly, remain employed past official retirement ages, embrace self-employment and combine different jobs at the same stage of their life cycle to generate the income they require. At the same time, globalisation, immigration and technological advances (especially automation) are changing the workplace landscape, compelling individuals and governments to rethink traditional models of employment. See Figure 13 in Appendix showing changes in self-employment and part-time working.

The effective retirement age is when people actually retire on average. Figure 8 shows that people retire earlier than their pensionable age in countries such as France, Germany, Netherlands and Italy. The reason for this is explained in Section 4. In the UK and Australia, labour market exit occurs close to official retirement age, while late retirement is the norm in countries such as Japan, Canada, Sweden and the US. For women, late retirement is most common in Japan where the effective retirement age is significantly higher than the official retirement age (by 3.8 years).

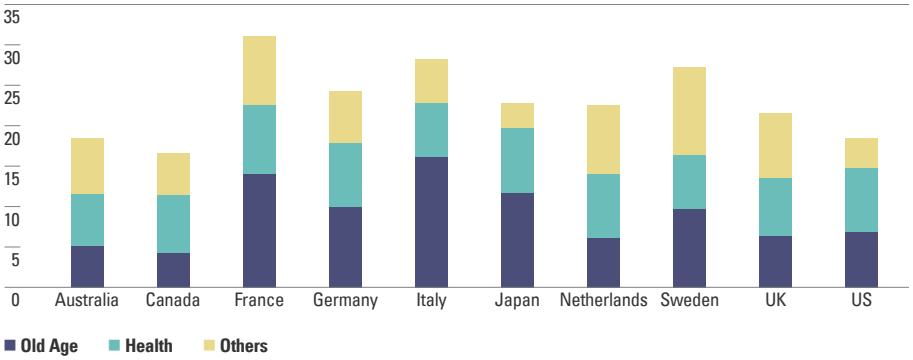
Figure 8: Official versus Effective Retirement Age, 2016

Source: OECD, SSGA Demographics.

Pensions at the Aggregate Level

Pensions and retirement savings are affected by what individuals as consumers, savers and workers do in the pre-retirement stages of life. When taken in aggregate, these can have a big impact on government budgets. Across some OECD countries, pensions and health expenditures now account for at least 60% of all public social spending.[9] Countries with older populations like Germany, France, Italy and Japan have much higher spending on pensions and health compared to those such as Australia and Canada. Fiscal, labour and monetary policy all need to respond to these changes.

Figure 9: Public Social Expenditures as % of GDP



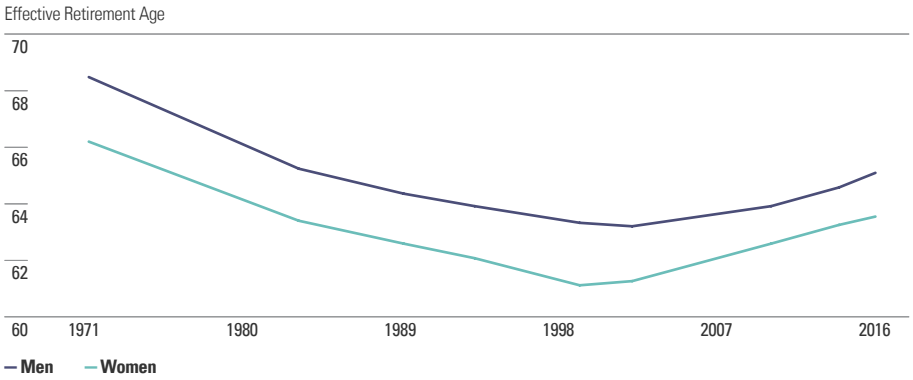
Others include Family, Incapacity, Labour Market, Housing and Other Social.
Source: OECD, SSGA Demographics.
The data relates to 2013, except for Australia and Canada which relates to 2014.

4. How Retirement Systems Can Adapt to Demographic Changes

The earliest national and corporate pension plans in developed countries were DB in nature, with risks borne by the plan sponsors who were companies or governments. By the late 1970s and early 1980s, issues with DB plans led to the emergence of DC schemes, where risks were passed to plan participants. The move towards DC and away from DB is an acknowledgement that past promises made by DB pension systems are not sustainable given changing demographic and behavioural trends.[10]

Another factor behind this pension problem[11] has been the steady decline in retirement ages from 1970 until the late 1990s. This coincided with a period of high economic growth combined with higher asset returns (in the 1980s and 1990s) that allowed many workers to retire early or work less. As a result, early retirement became the norm in European countries such as Italy, France, Germany and the Netherlands (see Section 3), a trend that only started to reverse in 2002 (Figure 10).

Figure 10: Changes in the Effective Retirement Age in OECD Countries



Source: OECD Pensions at a Glance 2017.

Many countries have since introduced reforms[12] to lift the minimum retirement age. However, these increases are too modest to have an immediate impact on the sustainability of most retirement systems. On average, the normal retirement age in OECD countries will increase by 1.5 years for men and 2.1 years for women, reaching just under 66 years in 2060.[13] During this same period, the UN projects that life expectancy for a 65 year old in the US will increase by 3.2 years.[14] Planned changes alone therefore will not ensure retirement systems are

sustainable and working lives will have to extend further. Holistic reforms in labour markets, tax, education and health are essential to mitigate the strains of fiscal sustainability and will need to vary across countries.[15]

System design, therefore, is crucial. We have seen how using modified definitions of working ages leads to far more reasonable old-age dependency ratios. If most countries raised their effective retirement ages by five years, they could reduce pension liabilities by about 100% of GDP.[16] Retiring later also has a positive impact on the expected outcomes for individuals: it reduces the expected retirement period and allows participants to save more and prolong their investment horizons.

The challenge for policymakers is to find ways to support the transition towards a more sustainable retirement.[17] A recent survey found that almost two-thirds of EU citizens would prefer to combine a part-time job with a partial pension than to fully retire; yet in Europe only about 10% of individuals aged 60–69 currently combine work and a pension.[18,19] Many retirement systems discourage working while drawing a pension, e.g., by reducing the pension payout after a certain income level. Extending working lives will therefore require better incentives for working full or part-time beyond current retirement ages, as well as encouragement to continue saving or to preserve accumulated assets for later drawdown.[20]

We discuss below some policy changes that we believe would make retirement systems more sustainable in an aggregate sense.

A. Abolish Mandatory Retirement Ages

One way to encourage people to extend their working lives is to abolish mandatory retirement ages.[21] This has already been done in countries such as the UK, with subsequent increases in age 65+ workforce participation. As well as allowing people to work longer, this change helps reduce the anchoring effect of people thinking that passing a particular age means that they should give up work.

Another important question is how employers will facilitate and value these older workers. While some employers already see them as a source of competitive advantage, many are unprepared for the rise in an older workforce.[22] Policymakers may need to encourage the hiring of older workers, e.g., by subsidising healthcare costs, reducing employment protections and offering these workers access to lifelong learning and re-training.

B. Increase State Pension Flexibility

The state benefit is an important part of the retirement savings system in most countries. Although the precise format varies, most "pillar one" (basic state pension) systems incentivise workers to defer retirement by providing higher guaranteed benefits if they delay making a claim. Many countries utilise an age band for claiming benefits, with a minimum eligibility age and a maximum age for when benefits have to start. While it is possible to combine work and pensions after the normal retirement age in most OECD countries, earning wage income can often reduce the pension entitlement, providing a disincentive to prolonging employment — though some countries are now taking steps to tackle this. Moreover, many countries operate a cliff edge system whereby the benefit must be taken in full by a certain age. For example, US Social Security payments have to start at age 70 and there is no option for claiming a partial benefit to facilitate 'partial retirement'.

We believe a more flexible pillar one system could encourage people to work for longer. In Sweden, people who have reached the minimum age of eligibility (62) can take 25%, 50%, 75% or 100% of their state benefit and modify the percentage when desired at an actuarially fair rate. There is also no maximum age by which full payments have to start.[23] Such flexibility may be particularly useful for people who have started saving for retirement later in life or are physically unable to work full time but for whom part-time work is feasible. These systems may be more complex to administer and will need to reflect different types of taxable income and incentives in order to avoid unintended consequences.

We would also recommend removing upper age limits for claiming pillar one entitlements, so that people can make best use of the cost-efficient longevity insurance these provide. "Pillar two" occupational pension provision (often but not always private pension schemes) in most countries is moving away from DB towards DC. A major drawback of DC relative to DB is the lack of guaranteed lifetime income. If individuals could choose when to claim the state benefit, they could use the pillar one benefits as a longevity backstop when their pillar two funding ran out, providing a main source of income late in life, rather than a steady source of income throughout retirement.

In Australia, for example, eligibility for the Age Pension is based on an asset test (reassessed annually) rather than age. Retirees are not eligible for the Age Pension until they have drawn their assets down to a minimum level, after which they receive the flat rate Age Pension for the rest of their lives. Economist Michael Johnson suggests a similar modification to the UK State Pension, postponing the start of payments to age 80 but doubling the payment.[24]

To return to our example of US Social Security, we calculate that if it were possible to defer Social Security payments until age 75 at an actuarially fair rate, this would increase replacement rates (the proportion of pre-retirement income replaced by the state benefit) by as much as 50%.[25] The ability to postpone payments until a later date and receive higher benefits for a shorter period could be particularly valuable for higher income earners, who would then receive meaningful income and valuable longevity insurance from the state pension.

C. Incorporate Income Differences into Retirement Policy

While most DB plans are proving unsustainable amid changing demographics, a move to a pure DC world could exacerbate income inequality. Those on lower incomes might have to work much longer than those on higher ones before they felt they had saved enough to retire on. Most pension reforms currently under way (such as in the Netherlands or Germany) aim to introduce more elements of DC to replace legacy DB promises. However, a shift to DC does not reduce dependency on the state pension; quite the contrary, the state pension plays an even more important role in a DC than a DB world as it is the only source of guaranteed lifetime income.

State pension entitlements are typically flat rate (e.g., in the Netherlands, the UK or Australia) or provide low income earners with a relatively high replacement rate (e.g., the US). In both cases, they represent an important element of income redistribution. Reaching a 45% replacement rate based only on DC savings would require a consistent savings rate of roughly 15%, which may be a struggle for very low earners.

Unfortunately, most efforts to improve the sustainability of pillar one provision focus on increasing the age of eligibility. But this can be disproportionately unfair to low earners who rely most on receiving the state pension, tend to have lower than average life expectancy and are more likely to be employed in professions in which working lives are harder to extend.[26] Many low income employees also start working earlier than those with higher levels of education. Requiring all employees to extend their working lives to the same minimum retirement age would therefore reduce the ratio of time spent in retirement relative to work specifically for lower income employees and would not be equitable.[27]

To be fair to all income groups, changes to pension systems will have to take into account the increasing heterogeneity in terms of life expectancy and savings capacity between income cohorts. One solution could be to link the minimum eligibility for full retirement benefits to years of work rather than age; low income individuals who started work before university graduates would then qualify for

full retirement benefits at an earlier age, compensating for lower life expectancy. Such an approach was considered by the UK review of state pension age led by John Cridland, former Director-General of the Confederation of British Industry, but no recommendation to that effect was made.[28]

D. Incentivise Higher Savings — Behavioural Nudges & Auto-Enrolment

The measures outlined above go some way towards improving the sustainability of retirement systems. However, a healthy system still relies on adequate savings from the working population. Recent evidence shows that if mandating retirement savings is politically impossible, a variety of behavioural interventions ('nudges') can be used to help people save more for their retirement.

One such nudge is automatic enrolment. Since it was introduced in the UK, opt outs have been only c. 5%–15%.[29] Auto-enrolment is also used voluntarily by many large US DC plans and is under consideration for improving participation in Ireland. Australia goes further with compulsory participation for all employees in a retirement plan. 'Save more tomorrow' approaches — involving automatically escalating contribution rates — can also boost contributions over time.[30] These allow participants to be introduced to the plan at a low rate, avoiding any adverse reaction to reductions in take-home pay, before being gradually raised to the required long-term levels. A growing number of large US plans, the UK and the Australian systems have adopted this or a similar approach.[31] However, the UK and Australian schemes are not structured to apply the save more tomorrow approach to individual participants beyond the launch cohort.

Governments considering introducing auto enrolment regimes should think carefully about how high to set the default enrolment rate, as setting too high a rate could cause low income earners to opt out. On the other hand, a rate that is appropriate for low income cohorts will be too low for those in higher wage groups. One possibility could be to have different auto-enrolment rates for different income cohorts — again, policy must take into account the increasing heterogeneity of the different population groups.[32] Matching can also be used to encourage voluntary contributions. Employers can offer to match employee contributions or tax relief on employee contributions can be presented as a form of matching (relief from 20% tax can be recast as 1:4 matching, which may be simpler to understand).

Many countries do not allow workers any access to their savings prior to retirement. In countries such as the US where employees are able to access the money, reducing pre-retirement 'leakage' of pension assets should improve effective savings rates. This can include discouraging early withdrawals and ensuring accumulated assets are rolled over into a retirement plan rather than cashed out when people switch jobs. An example where the reverse has happened is the UK. From 2015, individuals were no longer required to buy an annuity on retirement and had full access to retirement assets from the age of 55. Early evidence shows a significant number of participants taking withdrawals in their 50s for non-retirement reasons (e.g., leisure, home improvement) with relatively little consideration for the impact on longer term retirement income.[33]

E. Introduce Default Solutions for the Retirement Phase

When saving rates are low relative to required outcomes, it is obviously important to maximise the efficiency of those savings. Unfortunately this does not always happen. When DC was initially introduced in the US, employees had the freedom to make their own investment choices. This often led to sub-optimal outcomes, with employees investing in vehicles with inappropriate risk profiles for their ages. There is little evidence that encouraging participant investment choice leads to better outcomes and significant evidence to the contrary.[34] Most DC plans now allow employee contributions to be automatically directed to well-governed default funds, such as target date funds, which provide participants with age-appropriate levels of risk at relatively low 'institutional' fee rates.

While the accumulation phase of DC savings is well understood, most DC savings vehicles do not smoothly transition into providing employees with an income stream in retirement. Instead, in countries such as Australia, the US and the UK, DC savers are typically presented with a large lump sum that has to last for the rest of their lives. This introduces the potential for behavioural biases such as loss aversion and a disinclination to annuitise a least a portion of the sum to protect against longevity.

Indeed, experience from across the world shows that people are often reluctant to buy an annuity unless they are legally required or strongly incentivised to do so. Some use investment-led 'drawdown' approaches with no longevity insurance, but then need to self-insure against living to older ages. Effectively, this implies that they have to underspend during retirement in order to protect themselves against the risk of living to a very old age and, as a consequence, leave unintended bequests.

Moreover, because the institutional savings vehicles used during the accumulation phase do not typically provide employees with an income when they retire, most employees move their accumulated savings into a retail vehicle. This means that they usually pay higher fees and may receive little or no advice as to how to draw down their assets, which can have a significant impact on their income.

Fortunately, new solutions are emerging that allow employees to opt for a default vehicle on retirement, flexible access to savings (possibly in concert with part-time work) and a deferred annuity that provides secure income from, say, age 80, as well as mortality pooling which removes the need for self-insurance. Greater awareness of these types of solutions should help retirees better manage their longevity risk.

Conclusion

People are living longer and dependency ratios based on the traditional three-stage life cycle appear out of date and unsustainable. However, if we modify the age range of the working population to better reflect the modern demographic reality, defined as people aged 20–69 rather than 15–64, dependency ratios begin to look more manageable and pension systems more sustainable.

Nonetheless, further policy changes are required to ensure projected increases in the retirement age keep pace with projected increases in life expectancy. The transition towards a more DC-based retirement saving system should help accelerate the adjustment to longer life expectancy. But it also risks exacerbating income inequality as lower income cohorts typically have lower life expectancy and are less able to extend their working lives.

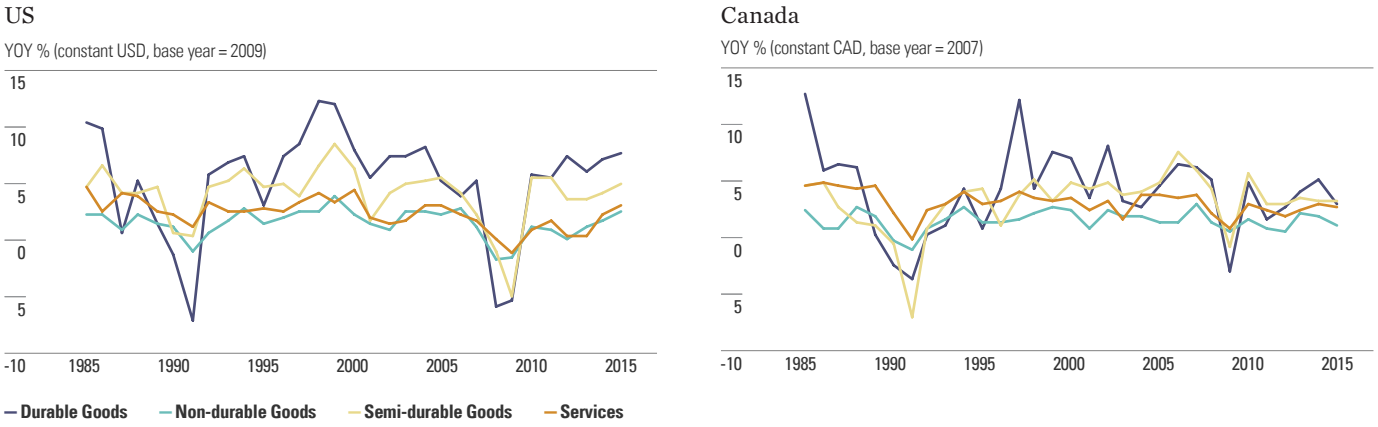
In a nutshell, a sustainable retirement system with feasible dependency ratios requires that workers save more and retire later. There are a number of policy actions **for individuals, employers and national retirement systems** that we recommend below.

1. Abolish mandatory retirement ages and promote flexible retirement patterns
2. Incentivise women to enter the workforce (via education, pension and childcare reforms and technology)
3. Promote lifelong learning by increasing investment in re-training programs for older workers
4. Create flexible pillar one systems that encourage later life working patterns such as combining part-time work with partial retirement
5. Abolish the upper limit on claiming pillar one entitlements to encourage delay in take-up
6. Link pillar one eligibility to the number of years worked to ensure fair treatment of lower income cohorts
7. Ensure consistent working life contributions to an appropriate retirement savings vehicle by mandate where possible or by nudges (e.g., auto-enrolment)
8. Integrate default solutions for the retirement phase into the default savings vehicle, providing a smooth transition from accumulation phase into retirement
9. Maximise efficiency of retirement savings by incorporating longevity protection into default solutions for the retirement phase

For the success of the recommendations above, it is important for asset owners and managers, alongside policy makers, to enhance their understanding of the impact of demographic changes on economies and households in order to provide new savings and investment solutions for workers and retirees at different stages of the lifecycle.

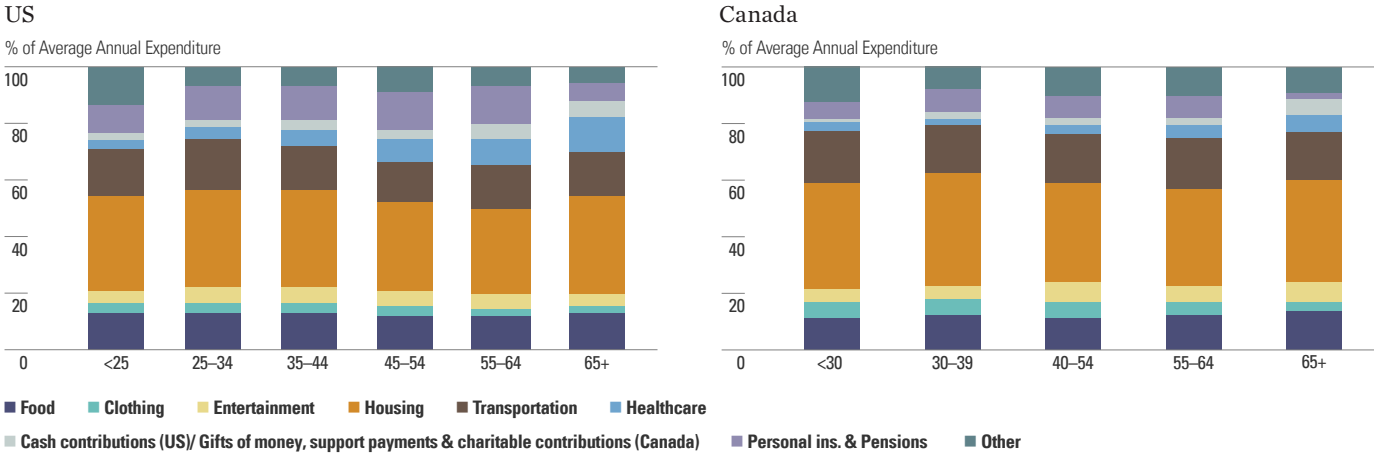
Appendix

Figure 11: Household Consumption Expenditure Annual Growth by Component (1985–2015)



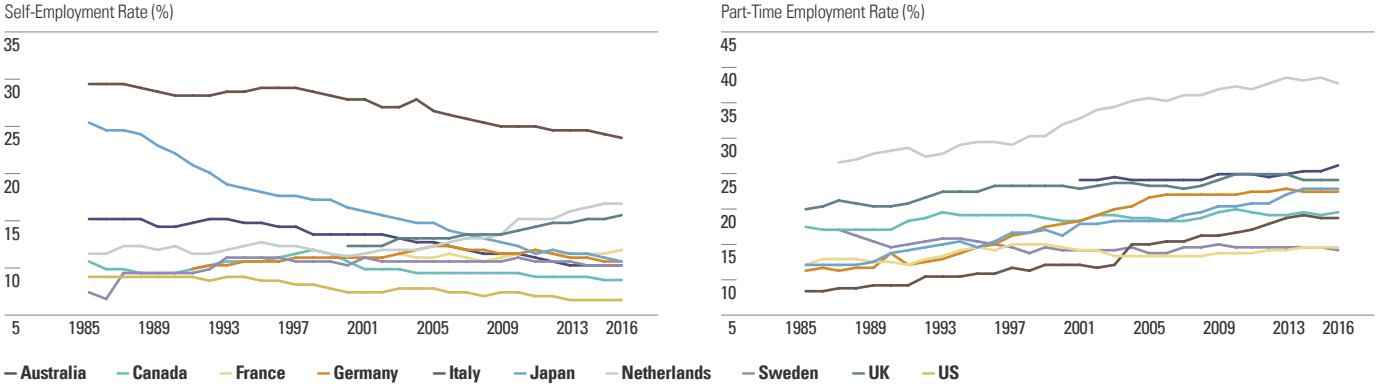
Source: OECD, SSGA Demographics.

Figure 12: Household Expenditure by Age Group (2016)



Others include: Tobacco products and alcoholic beverages, personal care products and services, reading materials, education and miscellaneous expenditures.
Source: BLS, Statistics Canada, SSGA Demographics

Figure 13: Self-Employment and Part-Time Employment Rates*



Source: OECD, SSGA Demographics. *In the case of Australia, Canada and the US, self-employed data excludes "incorporated self-employed".

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