



## The new old

**Ageing populations could be a boon rather than a curse. But for that to happen, a lot needs to change first, argues Sacha Nauta**

“NO AGE JOKES tonight, all right?” quipped Sir Mick Jagger, the 73-year-old front man of the Rolling Stones (pictured), as he welcomed the crowds to Desert Trip Music Festival in California last October. The performers’ average age was just one year below Sir Mick’s, justifying his description of the event as “the Palm Springs Retirement Home for British Musicians”. But these days mature rock musicians sell: the festival raked in an estimated \$160m.

There are many more 70-somethings than there used to be, though most of them are less of a draw than the Stones. In America today a 70-year-old man has a 2% chance of dying within a year; in 1940 this milestone was passed at 56. In 1950 just 5% of the world’s population was over 65; in 2015 the share was 8%, and by 2050 it is expected to rise to 16%. Rich countries, on which this report is focused, are greying more than the developing world (except for China, which is already well on the way to getting old); the share of over-65s in the OECD is set to increase from 16% in 2015 to 25% by 2050. This has knock-on effects in older age groups too. Britain, which had just 24 centenarians in 1917, now has nearly 15,000.

Globally, a combination of falling birth rates and increasing life-spans will increase the “old-age dependency ratio” (the ratio of people aged 65 or over to those aged 15-64) from 13% in 2015 to 38% by the end of the century. To listen to the doomsayers, this could lead not just to labour shortages but to economic stagnation, asset-market meltdowns, huge fiscal strains and a dearth of innovation. Spending on pensions and health care, which already makes up over 16% of GDP in the rich world, will rise to 25% by the end of this century if nothing is done, predicts the IMF.

Much of the early increases in life expectancy were due not to people living longer but to lower death rates among infants and children, ►

### ACKNOWLEDGMENTS

Apart from those mentioned in the text, the author is grateful for their help in the preparation of this report to Steven Barnett, John Beard, David Blake, Matt Carey, Dawn Carr, Yunsoo Cho, Angus Deaton, Mark Fawcett, Ben Franklin, Eric French, Jochen Frey, Mary Furlong, Ron Grether, Russell Higgenbotham, Dean Hochlaf, Tim Hodgson, Paul Irving, Stephen Johnston, Hyo-Jin Kim, Seunghyun Lee, Ripley Martin, Les Mayhew, Ron Mock, Miguel Ortiz, James Poterba, Walter Reinl, Lorna Sabbia, Domenico Savarese, Ha Kyung Song, Woo Sang Thak, Anthea Tinker, Eui-Sik Uhm, Ronda Warrenner, Ho-Jung Yoon and Barbara Zvan.

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▶ thanks to improvements in basic hygiene and public health. From the start of the 20th century survival rates in old age started to improve markedly, particularly in the rich world, a trend that continues today. More recently, life spans—the estimated upper limits of average life expectancy—have also been increasing. Until the 1960s they seemed fixed at 89, but since then they have risen by eight years, thanks in part to medical advances such as organ replacements and regenerative medicine. The UN estimates that between 2010 and 2050 the number of over-85s globally will grow twice as much as that of the over-65s, and 16 times as much as that of everyone else.

Warnings about a “silver time bomb” or “grey tsunami” have been sounding for the past couple of decades, and have often been couched in terms of impending financial disaster and intergenerational warfare. Barring a rise in productivity on a wholly unlikely scale, it is economically unsustainable to pay out generous pensions for 30 years or more to people who may have been contributing to such schemes only for a similar amount of time. But this special report will argue that the longer, healthier lives that people in the rich world now enjoy (and which in the medium term are in prospect in the developing world as well) can be a boon, not just for the individuals concerned but for the economies and societies they are part of. The key to unlocking this longevity dividend is to turn the over-65s into more active economic participants.

This starts with acknowledging that many of those older people today are not in fact “old” in the sense of being worn out,

## Making longer lives financially more viable requires a fundamental rethink of life trajectories

sick and inactive. Today’s 65-year-olds are in much better shape than their grandparents were at the same age. In most EU countries healthy life expectancy from age 50 is growing faster than life expectancy itself, suggesting that the period of diminished vigour and ill health towards the end of life is being compressed (though not all academics agree). Yet in most countries the age at which people retire has barely shifted over the past century. When Otto von Bismarck brought in the first formal pensions in the 1880s, payable from age 70 (later reduced to 65), life expectancy in Prussia was 45. Today in the rich world 90% of the population live to celebrate their 65th birthday, mostly in good health, yet that date is still seen as the starting point of old age.

This year the peak cohort of American baby-boomers turns 60. As they approach retirement in unprecedented numbers, small tweaks to retirement ages and pensions will no longer be enough. This special report will argue that a radically different approach to ageing and life after 65 is needed.

The problems already in evidence today, and the greater ones feared for tomorrow, largely arise from the failure of institutions and markets to keep up with longer and more productive lives. Inflexible labour markets and social-support systems all assume a sudden cliff-edge at 60 or 65. Yet in the rich world at least, a new stage of life is emerging, be-

tween the end of the conventional working age and the onset of old age as it used to be understood.

Those new “young old” are in relatively good health, often still work, have money they spend on non-age-specific things, and will run a mile if you mention “silver”. They want financial security but are after something more flexible than the traditional retirement products on offer. They will remain productive for longer, not just because they need to but because they want to and because they can. They can add great economic value, both as workers and as consumers. But the old idea of a three-stage life cycle—education, work, retirement—is so deeply ingrained that employers shun this group and business and the financial industry underserve it.

### What’s in a name?

History shows that identifying a new life stage can bring about deep institutional change. A new focus on childhood in the 19th century paved the way for child-protection laws, mandatory schooling and a host of new businesses, from toymaking to children’s books. And when teenagers were first singled out as a group in America in the 1940s, they turned out to be a great source of revenue, thanks to their willingness to work part-time and spend their income freely on new goods and services. Such life stages are social constructs, but they have real consequences.

This report will argue that making longer lives financially more viable, as well as productive and enjoyable, requires a fundamental rethink of life trajectories and a new look at the assumptions around ageing. Longevity is now widespread and needs to be planned for. The pessimism about ageing populations is based on the idea that the moment people turn 65, they move from being net contributors to the economy to net recipients of benefits.

But if many more of them remain economically active, the process will become much more gradual and nuanced. And the market that serves these consumers will expand if businesses make a better job of meeting their needs.

The most important way of making retirement financially sustainable will be to postpone it by working longer, often part-time. But much can be gained, too, by improving retirement products. The financial industry needs to update the life-cycle model on which most of its products and advice are based. Longer lives require not just larger pots of money but more flexibility in the way they can be used.

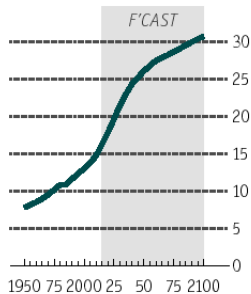
As defined-benefit pension schemes become a thing of the past, people need to be encouraged to set aside enough money for their retirement, for example through auto-enrolment schemes. It would also help if some of the better-off pensioners spent more and saved less. They would be more likely to do that if the insurance industry were to improve its offerings to protect older people against some of the main risks, such as getting dementia or living to 120. Many people’s biggest asset, their home, could also play a larger part in funding longer lives.

And for the oldest group, increasingly there will be clever technology to help them make the most of the final stage of their lives, enabling them to age at home and retain as much autonomy as possible. Perhaps surprisingly, products and services developed mainly for the young, such as smartphones, social media, connected homes and autonomous cars, could also be of great benefit to the older old.

But the report will start with the most obvious thing that needs to change for the younger old: the workplace. Again, there are parallels with young people. Working in the gig economy, as so many of them do, may actually be a better fit for those heading for retirement. ■

### The shape of things

OECD countries  
Population over 65, %







Working on

## Footloose and fancy-free

The recently retired may have a promising future as entrepreneurs and giggers

IN THE SHADOW of towering apartment blocks in Nowon-gu, a suburb of Seoul, employees of CJ Logistics, a large South Korean delivery company, gather at the local welfare centre. A truck pulls up and the group, mostly men in their 70s, leap to their feet to unload parcels. “It’s far better than staying at home,” says Eun Ho Lee, a chirpy 77-year-old who in his younger days ran a bedlinen business. Like so many of his generation in this country, he has no pension and lives mainly on his savings, so the 800,000-900,000 won (\$700-800) he makes from this job are welcome. He cannot imagine himself ever leaving.

There are drawbacks to older workers, admits a local supervisor; they carry fewer boxes and are sometimes slower than their younger colleagues. But since the company pays its employees per delivery, that does not matter, and the unhurried chattiness of this side of the business, the “Senior Parcel Delivery Service”, seems to appeal to customers.

In the rich world, and especially in Europe, the debate about retirement tends to focus on intergenerational conflict: pay-as-you-go public pension schemes mean that the young, in effect, are paying for the old. But if older people were to carry on working for longer, the resulting economic boost would benefit young and old alike, generating extra growth. The average 65-year-old in the rich world can now expect to live for another 20 years, half of them free of disability. If people in “older” countries, such as Germany, Japan and Spain, were to delay retirement by 2-2.5 years per decade between 2010 and 2050, it would be enough to offset the effect of demographic change, according to Andrew Mason, of the University of Hawaii, and Ronald Lee, of the University of California, Berkeley.

Older workers may be forgiven if they feel confused about whether or not they are wanted. In the period after the second world war, Britons preparing for retirement were told that “your economy needs you.” Then, from the 1970s onwards, they (and many fellow Europeans) were urged to make way for the young,

causing large numbers to take early retirement even as life expectancy was rising. At the same time fertility rates were dropping, conjuring up the risk of future labour shortages. By the 1990s governments and employers realised they were making pension promises they would not be able to keep. The idea that there is only a finite number of jobs to go round—the “lump of labour”—was more widely exposed as a fallacy. It became fashionable to argue that “we must work till we drop.”

### A work ethic like no other

The baby-boomer generation, known for its energy and assertiveness, has embraced that creed, but on its own terms. Many of its members had always been planning to work past their formal retirement age, both for the fun of it and because they needed the money. Aegon, an insurer, found in a recent survey that more than half of workers over 55 were hoping for a flexible transition to retirement, but only a quarter said their employers would let them work part-time. Age discrimination in both retention and recruitment is also a serious obstacle to keeping people in work for longer. One American study involving 40,000 fictitious cvs sent in response to advertised vacancies for low-skilled jobs found that applicants between 49 and 51 had 19% fewer callbacks than those aged 29 to 31 with otherwise identical cvs. For the 64-66 age group the difference was 35%.

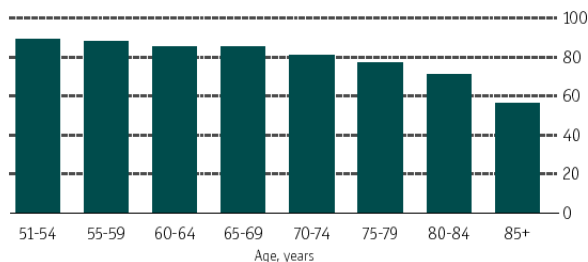
In response to such discrimination and inflexibility, some boomers try their luck in the gig economy. Though gigging is usually seen as something that young people do, in many ways it suits older people better. They are often content to work part-time, are not looking for career progression and are better able to deal with the precariousness of such jobs. A quarter of drivers for Uber, an on-demand taxi service, are over 50. More broadly, a quarter of all Americans who say they work in the “sharing economy” are over 55, according to PwC, a consultancy.

“Now I manage my own future. I manage my own life,” says Aykut Durgun, a 60-year-old former retail manager who drives his beautifully kept Mazda 5 for Uber and Lyft, another ride-hailing firm, in San Francisco. The change from managing 40 people to being ordered around by a 20-year-old in the back seat took some getting used to, but he loves the socialising, flexibility and challenge of navigating the city’s grid. The money isn’t bad either; he earns about \$6,000 a month before tax and sees no reason to slow down: “It’s the best way to prevent dementia.”

It helps that the gig economy has moved well beyond delivering pizzas or people. Businesses that offer on-demand lawyers, accountants, teachers and personal assistants are finding plenty of recruits among older people. Wahve (short for Work At Home Vintage Experts), a New York-based company, provides work for ▶▶

### Hale and hearty

Americans healthy enough to do a job or housework  
2013, % of total



Source: “Heterogeneity in Healthy Aging”, by D. Lowsky et al, 2013, Journal of Gerontology

▶ hundreds of former finance and insurance professionals, mostly in their 60s and 70s. “Carriers and brokers have huge talent problems, it takes years to train an underwriter,” says Sharon Emek, the firm’s 71-year-old founder. She realised boomers were retiring from the workforce but didn’t want to stop working; so now they are “pre-tiring”.

### Startup generation

The boomers are also becoming entrepreneurs. In America those between 55 and 65 are now 65% more likely to start up companies than those between 20 and 34, according to the Kauffman Foundation. In Britain 40% of new founders are over 50, and almost 60% of the over-70s who are still working are self-employed, which says as much about the limitations of conventional workplaces as about these seniors’ entrepreneurial spirit.

In Japan and South Korea, which are among the world’s fastest-ageing societies, large companies tend to get rid of older workers as they approach 60, and many of those workers then start a business. Some employers, including Hyundai, now also help older workers make the transition to life as an entrepreneur.

But “it’s not employers’ job to save society. They need to see the business case for older workers,” says Laura Carstensen of

Stanford University. That requires a few myths about older workers to be tackled; mainly that they are less able-bodied, inventive and productive than the young. This may have been true 50 years ago, but both the workplace and the workers have changed. Over the past decades the point at which workers are physically no longer able to work has shifted much further up the age range. The idea that only the young can innovate has also been successfully challenged.

Whether older workers are less productive than younger ones is harder to say. In fields where physical prowess matters, such as sports, it is obvious. But in many areas performance does not necessarily decline with advancing age. And even in jobs where it might, there are often ways of getting round it.

As Gernot Sendowski, head of diversity at Deutsche Bank in Germany, explains: “In operational work older employees can be slower, but they make up for that with fewer mistakes, so in total they are no less productive. If we had teams with only older people, they’d be too slow; if we had teams with only younger ones, there’d be too many mistakes.” The bank’s answer is to deploy multigenerational teams.

Mercer, a consultancy, has also found that older workers’ contribution is more likely to show up in group performance

than in traditional individual performance metrics (how many widgets someone makes per hour). “It seems the contribution of older workers materialises in the increased productivity of those around them,” says Haig Nalbantian, a partner in the firm. In repetitive work, productivity does seem to fall with age, but in knowledge-based jobs, age seems to make no difference to performance, finds Axel Börsch-Supan, of the Max-Planck Institute in Munich. And when such jobs also require social skills (as in the case of financial advisers, for example), productivity actually increases with age, he adds. That should give older knowledge workers an advantage in the world of artificial intelligence (AI), where social skills may be at a premium.

All this bodes better for high-skilled older workers than for low-skilled ones. “Who gets to stay healthy is not random; education is by far the top predictor,” says Ms Carstensen. And more highly educated Americans are more likely to work on for longer, write David Bloom, from Harvard University, and colleagues. It has also become clear that some work can be good for both physical and cognitive health. This helps explain the substantial gap in both general and healthy life expectancy between skilled and unskilled workers, which could grow wider unless everyone has access to lifelong learning to make them more adaptable.

Fortunately the sort of changes to working life that older workers are looking for—flexible hours, a workplace designed with wellness in mind, the opportunity to keep learning—are also just the sort of things that millennials demand from prospective employers. And if employers keep their costs down by getting ▶▶

## Rock around the clock

### The other gig economy

ROCKERS ARE NO different from the rest of us: they, too, need to work for longer to maintain a decent standard of living in retirement. Previous generations could rely on record sales and royalties to fund their pensions, but digital disruption has largely closed off such revenues, so the performers have to get back on the road. That involves new financial risks. Rock stars have always been risky assets; one study suggests that they are 1.7 times as likely to die as others of the same age. Now that revenues from concerts have become so much more important, the potential losses to tour organisers have ballooned. That applies all the more if the performers are a bunch of 70-year-olds who may not always have treated their bodies as temples.

This is where financiers come in. Concert organisers and others who depend on mature rockers for their income are more likely to insure against the risk that their performers might not show up, says Jonathan Thomas, a Lloyd’s underwriter. He has seen this market for “non-appearance products” grow as musicians get older. Film studios take out similar cover for mature stars. Disney must have been relieved to have done so for Carrie Fisher, who died at the age of 60 last year before completing filming on all the “Star Wars” films she was contracted for, triggering a claim which could go up to \$50m.

Rockers themselves are also taking

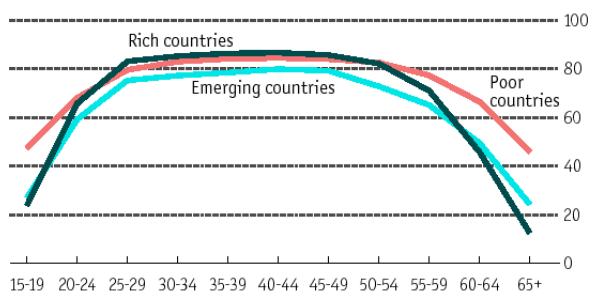
out insurance against the most common ailments that could stop them from carrying on working. Aside from overdosing, typical career-ending injuries used to include electrocution (all that electrical equipment), but now are more likely to be osteoporosis and loss of hearing. The Rolling Stones’ lead guitarist, Keith Richards, who is 73, has insured his hands for \$1.6m.

Underwriters are ready to accept their clients’ lifestyle and work hazards, arguing that where there is risk, there is reward—if the price is right. “It’s a badly misunderstood market, and one 70-year-old rocker is not like the other; there’s plenty of scope for savvy underwriting,” says one of them. And the insurers do take precautions. Exclusions for pre-existing conditions, especially those related to alcohol abuse or failing livers, are common.

Rockers of advanced years are also good for busting stereotypes about older workers. Their energy levels may be lower, but they often pace themselves more and look after themselves better than in their younger days; not so much sex and drugs, more tea and yoga. Sometimes such moderation is imposed by their insurers. The Stones’ “14 on Fire” tour contract is said to have contained exclusion clauses for a variety of dangerous pursuits. Besides, says the underwriter, by the age of 70 some of the riskier rockers have already been weeded out by the Grim Reaper.

**Keep going**

Labour-market participation rate by age, % of population



Source: International Labour Organisation

► rid of age-related perks, such as seniority-based pay and promotion, they will have less reason to shun older people—and make the workplace fairer and more productive for everyone.

One large economic contribution made by older people that does not show up in the numbers is unpaid work. In Italy and Portugal around one grandmother in five provides daily care for a grandchild, estimates Karen Glaser from King’s College London. That frees parents to go out to work, saving huge sums on child care. In Britain unpaid older caregivers save the state around £11.4bn per year, according to Age UK, a charity.

Apart from providing support within the family, a quarter of people also aspire to doing some voluntary work after retirement, according to a recent study by Aegon. In America the over-55s formally volunteered 3.3bn hours in 2016, making an economic contribution worth \$78bn, says the Corporation for National and Community Service, a federal agency. A number of studies have found that this benefits not only the good causes they work for but also their own physical and mental health.

But there is another way in which older people support the economy: by spending their money. ■

**Consumers**

**Don’t call us silver**

**From adventure travel to dating websites, older consumers display resolutely young tastes**

“THERE’S NOTHING WRONG with bingo and chicken,” says Tom Kamber, before explaining why you won’t find either in the senior centre he runs in Manhattan. Instead, members of the Senior Planet Exploration Centre are given VR goggles and other digital gadgets to play with, though most head straight for a wall of computers to check their Facebook accounts or shop online. A group of 15 seniors, some in their 80s, clad in sportswear, huddle around their fitness coach. People come for classes on starting their own businesses, using smartphones, booking travel on the web and setting up online dating profiles. “We just demystify the technology and away they go,” explains Mr Kamber.

Businesses could learn from this. With longer lives, more free time and a lot of cash, older people clearly present a “silver dollar” opportunity. In America the over-50s will shortly account for 70% of disposable income, according to a forecast by

Nielsen, a market-research organisation. Global spending by households headed by over-60s could amount to \$15tn by 2020, twice as much as in 2010, predicts Euromonitor, another market-research outfit. Much of this will go on leisure.

Yet the market has failed to respond to this opportunity, even though it has been clear for a long time that the baby-boomers would start to retire in larger numbers, in better health and with more money to spend than any previous generation. They feel much younger than their parents did at their age, and most of them have no intention of quietly retreating from the world. “Retirement used to be a brief period between cruise ships and wheelchairs, with a bout of norovirus,” says Joe Coughlin, who runs the AgeLab at the Massachusetts Institute of Technology. Now it has become a complete new stage of life, as long as childhood or mid-life, which boomers want to structure very differently; “yet we still offer my grandfather’s retirement.”

Over-60s adventure travel has become a booming business opportunity. In America more than 40% of adventure travellers are over 50, according to the Adventure Travel Trade Association. In Britain older travellers are the largest spenders in the industry, with the fastest growth in the 65-74 age group. Instead of comfortable cruises or bus tours, they demand action, from expeditions to the Arctic to cultural trips to Asia.

Jane Dettloff, a 73-year-old from Minnesota, has just returned from a two-week cycling tour in Chile. “The culture, the cuisine, the beaches and—oof—the Andes wine!” By day the 16 women, aged 61 to 87, pedalled, chatted and “felt like young girls again”. By night they enjoyed “wine-o’clock, without the whining about pills”. The travel company that organised the tour, VBT, does not explicitly bill itself as a specialist in senior travel, but offers subtle hints: “at your own pace”, “since 1971”, “good wine”. More than 90% of its customers are over 50.

**Out of date**

Another emerging market is dating. Whereas overall divorce rates are falling in some countries, including America, Australia and Britain, “silver splits” are soaring as new pensioners suddenly face the prospect of spending a lot more time with their partner. Americans over 60 are now getting divorced at twice the rate as they were in 1990, and Britons at three times the rate, write Lynda Gratton and Andrew Scott in “The 100-Year Life”. More than a quarter of the members of Match.com, a popular dating website, are between 53 and 72, and that group is growing faster than any other.

Older people seem more concerned than younger ones about the risks of online dating, prompting the setting up of specialised sites such as Stitch, an online companionship site with 85,000 members. “There’s more fun to be had after 50,” proclaims its promotional video, adding that “it’s all very safe.” Older customers seem more willing to pay for online memberships than the young, provided they add value. Stitch screens members and organises social events, explains Andrew Dowling, the co-founder. “Most people want companionship, but dating does change with age.”

Jody, from New Jersey, was inspired by her nieces, who all use dating apps, and ended up at a Stitch “drinks and mingling” event in a trendy New York bar. It turned out to be ten women sipping Margaritas, laughing as they swapped experiences of disastrous online dates and debating whether they would be more likely to meet a man if they went in for predominantly male activities such as mountain biking or golf.

Women spend more on trying to find a companion than men, because in the higher age groups there are more of them (in the rich world they live an average of five years longer), and they are more likely to be single. In 2014 nearly three-quarters of ►►



▶ American men over 65 were married and only one in ten was widowed; of women in the same age group, under half were married and one in three was widowed. In Europe, too, women over 65 are more than twice as likely as men to be living alone. This can be problematic if they lack adequate savings, but also opens up new demand for all sorts of things that hardly anyone would have imagined a generation ago.

One is different sorts of accommodation. With longer time horizons ahead of them, the younger old are spurning lonely granny flats and looking for something more convivial, closer to a bachelor pad. “Retired golden girl seeks two cosmopolitan, easy-going, positive people with a (wacky) sense of humour to share this lovely, charming property,” starts an ad on golden-girlsnetwork.com, a single-senior housemate-finding website.

But businesses that want to get into this new market of the younger old should note that they are fussy. They do not see themselves as old, and will respond badly to ads specifically targeted at older people (as Crest found when it launched a toothpaste for the 50+ age group). The over-50s are also intolerant of websites or gadgets that underdeliver, says Martin Lock of Silver-surfers.com, the largest over-50s community in Britain: “If something doesn’t work, they’ll be the first to leave.”

Between now and 2030, most of the growth in consumption in the developed world’s cities will come from the over-60s, according to McKinsey, a consultancy. So this is the market to go for; but to provide the wherewithal, the financial industry will first have to reinvent itself. ■

## Finance

# Your money and your life

## As lives get longer, financial models will have to change

IN 1965 ANDRÉ-FRANÇOIS RAFFRAY, a 47-year-old lawyer in southern France, made the deal of a lifetime. Charmed by an apartment in Arles, he persuaded the widow living there that if he paid her 2,500 francs (then about \$500) a month until she died, she would leave it to him in her will. Since she was already 90, it seemed like a safe bet. Thirty years later Mr Raffray was dead and the widow, Jeanne Louise Calment, was still going strong. When she eventually passed away at 122, having become the world’s oldest person, the Raffray family had paid her more than twice the value of the house.

Underestimating how long someone will live can be costly, as overgenerous governments and indebted private pension schemes have been discovering. They are struggling to meet promises made in easier times. Public pensions are still the main source of income for the over-65s across the OECD, but there are big differences between countries (see chart, next page). In both America and Britain public provision replaces around 40% of previous earnings, but in some European countries it can be 80% or more. Where it makes up a big share of total pension income, as in Italy, Portugal and Greece, a shrinking workforce will increasingly struggle to finance a bulging group of pensioners.

Private pension schemes, which supplement state provision, have been shifting from defined-benefit plans, where workers are promised a fixed amount of income in retirement, to defined-contribution plans, where workers themselves take on the risk. Such schemes are good for employers but tricky for individ-



uals, who become personally responsible for ensuring they do not outlive their savings. The new stage of life now emerging between work and old age adds a further complication. To accommodate these changes, the financial industry needs an overhaul.

First, it has to update the rigid three-stage life-cycle model on which most of its products are based. Second, it needs to resolve two opposite but equally troubling problems: undersaving during working life and oversaving during retirement. The first puts pressure on public provision, the second leads to underconsumption as cash is left under the mattress. Third, a more creative approach is needed to the range of assets that pensioners can draw on, including their homes, which have so far played little part in provision for old age.

“In a multi-stage life, the idea of hitting a cliff-edge retirement at 65 and then living off an annuity is outdated,” says Alis-tair Byrne, from State Street Global Advisors, a money manager. His clients, many of whom intend to work past normal retirement age, are asking for more flexibility to get at their savings at a younger age. They also want a secure income for the last phase of life. “It’s not at all obvious that the traditional pension industry, which still sees life as a three-stage event, will survive this transition,” says Andrew Scott of the London Business School.

## Nothing in the kitty

Many people simply do not save enough. Roughly 40% of Americans approach retirement with no savings at all in widely used retirement accounts such as IRAs or 401(k)s. In Britain 20% of women and 12% of men between 55 and 65 have no retirement savings, according to Aegon. Yet with the demise of defined-benefit schemes, the increase in the retirement age and the steady rise in life expectancy, most of today’s workers will need to save more than their parents did. Some of them do not earn enough to put money aside, but for many the problem is in the mind: they consistently underestimate how long they will live and overestimate how long their money will last. As more people become self-employed, getting them to save for their old age becomes ever more important.

One solution is to allow retirement funds to be used more flexibly, which may encourage people to save more. But nudges are unlikely to be enough. “People need a push,” says Myungki Cho, from Samsung Life’s Retirement Research Centre in Seoul. Some countries, such as Denmark and the Netherlands, provide such a push by making enrolment in pension schemes more or less mandatory. Short of that, auto-enrolment, recently intro- ▶▶



*Often people just need the confidence that they really can afford to spend a little more on themselves*

▶ duced in Britain, and auto-escalation (increasing contributions over time) can also make a difference.

At the same time many pensioners spend less than they can afford, which creates its own problems. Ronald Lee and Andrew Mason have found that in most rich countries the elderly are net savers. Since they cannot be sure how long they will live and what their state of health will be, and have no way of predicting inflation, interest rates and markets, some caution is clearly in order. But Chip Castille, from BlackRock, an asset manager, thinks oversaving is often unintentional. “It would be an extraordinary coincidence if you saved exactly enough for retirement,” he says.

This gets to the heart of why some economists are pessimistic about greying societies. In a phase when older people should be spending freely, many are accumulating wealth, says David Sinclair, of the ILC UK. He thinks the greater pension freedoms granted in Britain in 2015 are more likely to lead to frugality rather than spending sprees.

Such “accidental” oversaving will increase in a world of defined-contribution plans, predicts Tony Webb, an economist at the New School, in New York City. Given a choice, people will assemble their own kitties rather than buy annuities that provide an agreed lifetime income in exchange for a lump sum. If they die young, the money will be a windfall for their heirs. Similarly, since money locked up in homes is difficult to get at during the owner’s lifetime, much of this too will be passed on, Mr Webb adds. Raising inheritance-tax rates could make a difference, but better insurance is equally important. This dormant wealth, which is often neither invested nor spent, is stopping many of the younger old from realising their full economic potential. “Often people just need the confidence that we’ve run the numbers and that they really can afford to make that donation to a charity, or spend a little more on themselves,” says Kai Stinchcombe, from True Link, a financial-advice firm for pensioners.

### Take care

Depending on where people live, how much they earn and whether they have family willing to care for them, one of the greatest financial risks of ageing can be end-of-life care expenditure. A 50-year-old American has a better-than-even chance of ending up in a nursing home, estimate Michael Hurd and colleagues from RAND, a research organisation in America. In Britain an official review in 2011 of long-term care reckoned that a quarter of older people in Britain needed very little care towards the end of life but 10% faced care costs in excess of £100,000.

Most countries will need to find a mix of public and private provision to pay for long-term care costs. A well-functioning insurance market should be an important part of this, but care insurance has mostly failed to take off. American providers who piled in too enthusiastically in the 1990s got burnt when customers needed more care than expected, and are still haunted by the experience. Low rates of return on bonds have not helped.

Every country has its own peculiarities, but four common factors help explain the market failures. First, the future of public care is uncertain. Second, despite or because of this, many people think they do not need insurance because the state or their family will look after them. Third, the market is subject to “adverse selection”—the likelihood that insurance will appeal only to those most at risk of needing care. And fourth, care costs are unpredictable and could spin out of control in the future. As a result, insurers either avoid the care market altogether, or charge exorbitant premiums and add lots of restrictions.

As with any big risk, pools need to be large to make protection products work. The easiest way to achieve this is to make insurance compulsory, as in Germany. One alternative is auto-enrolment in a public-private scheme with an opt-out, a method with which Singapore is experimenting. At a minimum, some government intervention—such as providing a backstop for the most catastrophic risks—seems to be required for the market to establish itself. But perhaps the biggest problem is that government policies chop and change far too often.

Insurers could help, not least by offering more hybrid products such as life insurance with the option of an advance on the payout if customers need care, or annuities that pay a lower-than-usual income but convert to a higher-than-usual rate if pre-agreed care levels become necessary. And there is a need for clearer guarantees against unexpected premium hikes. Most importantly, though, insurers will need to persuade people to enroll long before they are likely to require any care.

By far the most common reason for someone needing long-term care is that they are suffering from Alzheimer’s or some other form of dementia. Globally around 47m people have dementia. Without a medical breakthrough this number could grow to 132m by 2050, according to the World Alzheimer’s Report. One study found that people suffering from dementia accounted for four-fifths of all those in care homes worldwide.

In the absence of other options, for many people the ultimate insurance is their home, though few homeowners see it that way. In the rich world much of the wealth of lower and middle-income households is tucked away in bricks and mortar. With house prices soaring in many countries, releasing some of this equity could greatly benefit asset-rich but cash-poor pen- ▶▶

### Changing the mix

Sources of income for over-65s, 2012 or latest, % of total







Easy once you know how

► sioners, as well as the wider economy.

The most obvious tool for this is a reverse mortgage, which lets homeowners exchange some of their home's equity for a lump sum or a stream of income in retirement. But it is not widely used. In America fewer than 49,000 reverse mortgages were sold last year, most of them provided by only about ten banks. Mis-selling scandals in the early days now seem to have been resolved, says Jamie Hopkins, of the American College of Financial Services, but people find such mortgages scary and worry that they might lose their home. Because of the lack of competition, the products also remain expensive. Mainstream financiers could help expand the market.

In the meantime, entrepreneurial empty-nesters have found another way to sweat their assets: Airbnb. The over-60s are the fastest-growing group of hosts on the home-sharing site and receive the highest ratings. Almost half of older hosts in Europe say the additional income helps them stay in their home.

The longer that people live, the more varied their life cycle will become. Workers will take breaks to look after children or go back to school; pensioners will take up a new job or start a business. Financial providers need to recognise these changing needs and cater for them. That includes helping to fund technology that could vastly improve the final stage of life. ■

**Technology**

# Tablets for every problem

**The latest technology is even more beneficial for the old than for the young**

NO MATTER HOW much lifespans are being stretched, the very last chapter is often grim. From the age of 80, in the rich world one person in five will be afflicted with some form of dementia, one in four will suffer from vision loss and four in five will develop hearing problems. Of those who make it to 90, the majority will have at least one health problem that counts as a disability; many will have multiple ones. Unfairly, for poorer and less well-educated people this decline often starts sooner.

In former times, the old used to spend this final, increasingly dependent phase at home, looked after by relatives. Over the past century, as ageing in the rich world became medicalised, care for the elderly was outsourced to retirement or nursing

homes (a model that emerging economies such as China are now beginning to copy). But most old people do not want to live in institutions for long periods, and the cost of such care is exorbitant. So the new buzz phrase is "ageing in place".

That is mostly a good thing, but it does carry risks of its own. An old person's home may be his castle, but if he suffers from bad balance or tends to leave the cooker on, it can become a death trap. Another risk is that the shift will undo the progress in gender equality made in the past few decades. Having to care for elderly family members is already a prime reason for women to drop out of work. Just as women have tended to leave their jobs to care for new babies in their 30s, a second "hole in the pipeline" is appearing around the age of 50. There is no reason why men could not provide such care, but typically it is women who are doing it—though by the age of 75 men in rich countries become much more likely to do their bit, usually for a spouse.

Technology holds great promise to make life better for the elderly, enabling them to retain their independence and live full lives for longer. Equally important, it can lend a helping hand to those who care for them and provide peace of mind. And it should be good for health and care funders because it helps prevent expensive spells in hospitals and care homes. The difficulty lies in deciding who pays. Much of the technology that can improve the last stage of life already exists, but the uncertainty over funding discourages inventors from pursuing good ideas and venture capitalists from investing in them.

Oddly enough, the greatest potential for improving the lives of the elderly lies in technology built for the young. Two broad developments that seem a perfect fit for the lives of millennials—the smart home and the on-demand economy—might well have an even bigger impact on old people.

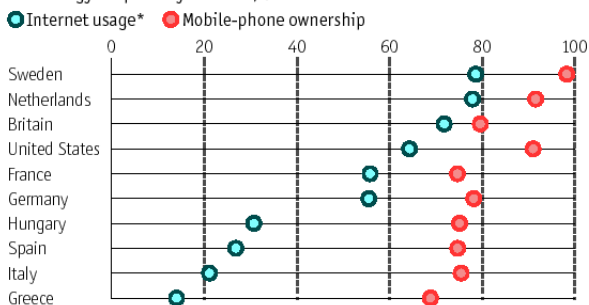
At first sight, Dolf Honée's tidy brownstone looks like any other house in a sleepy residential street in Oostvoorne, a town west of Rotterdam, in the Netherlands. But a set of eight sensors from Sensara, a tech company, have transformed the 87-year-old's home into a cyber-castle. His children, all in their 50s, keep an eye on when he gets out of bed, goes to the toilet, has a meal or leaves the house, using an app that pings them if anything is wrong. "They're always watching me," jokes Mr Honée, but he feels safer, he says "without feeling spied on as with cameras."

**The little things than can cause big trouble**

Such a fairly basic version of a smart home can make a big difference to the growing number of older people who live alone and wish to stay where they are. Reinout Engelberts, of Sensara, thinks the main value of such systems is "catching little things before they become big discomforts and big costs for the provider". Increased toilet visits can flag up a urinary-tract infection; changes in gait can predict an impending fall, the leading cause ►►

**How tech-savvy?**

Technology adoption by over-65s, % of total



Sources: OECD; Pew Research Centre; Eurobarometer

\*65- to 74-year-olds



▶ of death from injury among older adults. By picking up such things early, the algorithms can alert the elderly or their caregivers to the need for simple interventions.

So far most elders experimenting with smart homes or wearables use only basic tools: sensors in their home or a monitor around their wrist. But it does not take much to imagine a home where the occupant's sleep is monitored via a device in his ear, his fridge suggests what he might eat, based on information from other monitoring devices, and a pill dispenser can give him tailored medication. A smart stove switches itself off if it detects a fire hazard, and smart pipes turn off a tap left running. When the doorbell rings, his smart watch tells him who has arrived. All the while these data are mined for information that might be useful for caregivers.

Most of the technology needed to do all this already exists, at least in prototype form. The hard part is getting providers to pay for it. In the Netherlands five insurers now reimburse users for Sensara's sensors and the company is in talks with others, including the health ministry. Other insurers are experimenting with reimbursements on wearables. But on the whole providers are still reluctant to pay for a gizmo today that might prevent a hip fracture and hospitalisation tomorrow.

One reason for optimism is that the cost of such consumer products is coming down. Amazon's Echo, a voice-controlled digital assistant, answers questions, reads the news, can phone relatives and control other smart devices such as lights, thermostats and the television on demand. August's smart lock keeps track of comings and goings in a home and allows doors to be opened or locked remotely. Such gadgets were conceived with young consumers in mind, but could be even more useful for older people.

In a mock-up of the connected home of the future in Framingham, near Boston, Philips, a health-technology company, displays both its own smart medical devices and the high-street kind. It aims to bring all of them together and crunch the data with its predictive analytics tools. One floor up, in a blast from the past, phones ring in the call centre for Philips Lifeline, an alarm system used by 750,000 elderly Americans that features a pendant with an emergency button. Occasionally a life is saved this way, but many calls are set off accidentally. Such pendants now seem pretty standard stuff, but they did persuade a generation that grew up offline to adopt wearables for the first time. For their children, it should be an easier sell.

"Facebook may have been built for kids who spend all day together in the classroom, but the elderly, who could otherwise become isolated, stand to benefit most," says Katy Fike, from Aging2.0, an innovation platform. Encouragingly, over a third of Americans over 65 use social media and 64% of those between 50 and 65 do, according to Pew Research. Europeans are a bit behind, but the trends are similar.

### Technological elves

The other great opportunity is on-demand services. Cars, grocery deliveries, handymen and concierge doctors at the swipe of a smartphone could all be a boon to older people. Boomers are already familiar with these services, so once they become less mobile they will just use them more. Lyft, a ride-hailing service, is already trying to recruit older customers by offering senior-friendly ways to book without a smartphone. Trials have shown that on-demand ride shares can reduce lateness and no-shows for medical appointments.

On-demand care services could make an even bigger difference. Traditional care companies are inflexible, typically insisting on advance booking in blocks of so many hours. Seth Sternberg, a former Google employee, got so frustrated with this that

he launched Honor, a tech-enabled care company through which carers can be booked round the clock, via an app, on a pay-as-you-go basis for whatever time is required. The company has raised \$65m in venture capital and operates in 12 American cities. Other entrepreneurs are looking at on-demand nurses and light help in and around the house. Such services would not only make it easier for elderly people to stay in their homes, but also provide work for the younger old looking for gigs. The challenge will be to make the economics stack up.

Demand for this kind of technology will only increase as populations age, but unless funding mechanisms can be found, it will be available only to those who can pay for it outright, thus increasing inequality. In future doctors might prescribe all kinds of preventive technology-based services for older people at risk, just as they prescribe preventive pills today. Government may well have a role in this, but the obvious funders are insurance companies: they, too, have much to gain from prevention.

Encouragingly, in every centre for seniors visited for this report, from New York to Seoul, the most popular classes were in the use of smartphones and tablets, often sponsored by telecoms companies who spotted an opportunity. If insurers and health-care providers do not come up with a funding model, tech and telecoms companies may eat their lunch. ■

### The longevity dividend

## A blessing, not a burden

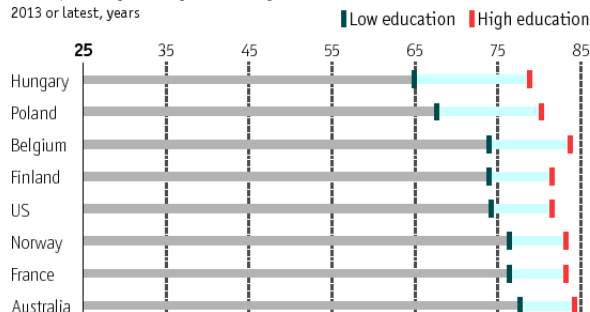
### How to make the most of ageing populations

FOR MOST OF history humans lived only long enough to ensure the survival of the species. Today babies born in the West can expect to see their grandchildren have children. With more time come many more opportunities for work and pleasure, enriching individuals, societies and economies alike. Whether mankind is able to reap this "longevity dividend" will depend on how those opportunities are used.

By the early 2000s the state of health of American men aged 69, as reported by themselves, was as good as that of 60-year-olds in the 1970s; 70 really does seem to be the new 60. This report has argued that if employers, businesses and financial services adapt to make far more of such people, big economic bene- ▶▶

### Education is destiny

Life expectancy for 25-year-olds, by education level  
2013 or latest, years



Source: OECD

fits for everyone could follow. There are striking parallels between the longevity dividend now in prospect and the gender dividend that became available when many more women started to enter the labour market in the 1970s. The last stage of life could also be greatly improved by letting more people retain their autonomy, often with the help of technology.

But for all those benefits to be realised, two things need to happen. First, employers must adapt to an ageing workforce. Although the gig economy and self-employment have been helpful in allowing older people to carry on working, the fact that they are so widely used suggests that traditional employers are often insufficiently flexible to accommodate this new group.

### The business case

Ageist recruitment practices and corporate cultures can be big impediments to keeping older workers employed. Nearly two-thirds of this group surveyed in America said they had witnessed or experienced age discrimination at work, according to the AARP, a lobby group for the over-50s. Legislation can help, but the best hope is for employers to recognise that offering opportunities to older workers is smart business rather than a social duty. Academics have found that older people in multi-generation teams tend to boost the productivity of those around them, and such mixed teams perform better than single-generation ones. Companies that have taken this advice to heart, such as Deutsche Bank, report fewer mistakes and positive feedback between young and old.

As one of the world's oldest countries, Germany offers other encouraging examples. "It used to hurt in all the usual spots," says Andreas Schupan, grabbing his back, elbows and shoulders. Aged 47, he has worked on a production line at BMW, a carmaker, for over 20 years. Now a computerised cart does most of the lifting for him, and he hopes to stay on for another 20 years.

The second thing that needs to happen is for the benefits of longer, healthier lives to be spread much more equitably. As things stand, greater longevity is something of a lottery that favours the well-off and the well-educated. Not only do people in the rich world live significantly longer than those in poor countries, but huge differences in lifespan persist even among rich-country dwellers. In America the difference in mortality rates among those with and without a college degree has been widening for the past 20 years.

Across the OECD, the average highly educated 25-year-old man can expect to live eight years longer than a contemporary with only a basic education (see chart, previous page). In Britain a baby girl born between 2012 and 2014 in Richmond, a wealthy area in south-west London, is not only likely to live 3.4 years longer than her equivalent in Tower Hamlets, a run-down part of east London; she will also enjoy 14.5 more years in good health, estimates Britain's Office for National Statistics.

The causes of such gaps in life chances between haves and have-nots are well known. Smoking, obesity, air pollution, drugs and alcohol consumption all have a strong, and in some cases growing, influence on differences in life expectancy within countries, says Fabrice Murtin of the OECD. The best way to level the playing field is to invest in public health, offer universal access to health care and provide high-quality education for everyone. Unsurprisingly, in countries such as Canada or Sweden, which attach great importance to such matters, the gap in life expectancy between the most and the least educated people is much narrower than it is in America.

Individuals will also have to take more responsibility for unlocking their own longevity dividend. In a survey of Americans conducted by researchers at Stanford University, 77% of respondents said they wanted to live to 100, but only 42% claimed to be making a real effort to get there.

Given the right input from governments, employers and individuals, it should be possible to stretch the increasingly productive in-between stage and compress the dependent period at the very end of life. But that last stage will always remain costly, and the state will probably continue to pick up most of the tab.

Estimates of life expectancy over recent decades have regularly proved too conservative. Some demographers already think that children born in the rich world today will routinely make it to 100. With vast sums being pumped into fields such as stem-cell research, regenerative medicine, biomedical technology and genomics, human lives could stretch well beyond that. If that happened rapidly, it could prove highly disruptive. Economies would suffer, social tensions could erupt and progress on gender equality might be reversed as many more women were obliged to become caregivers for the elderly. To avoid such ill effects, societies and economies must start in earnest to prepare for those longer lives right now. ■



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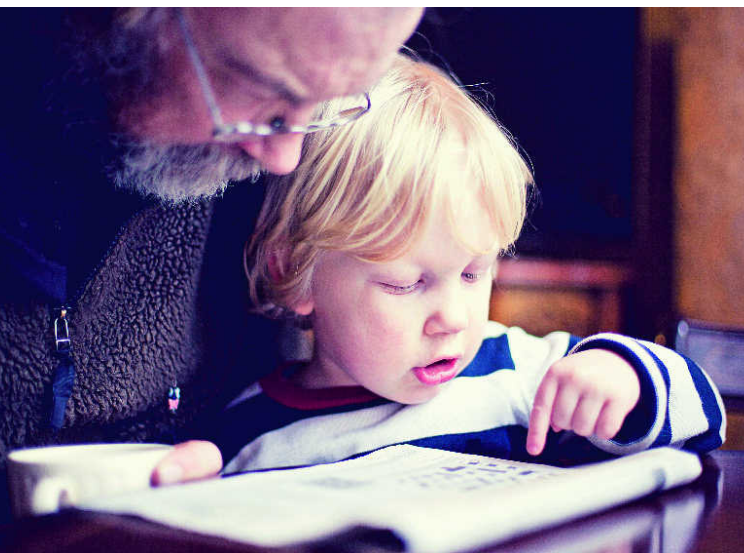
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*Older people in multi-generation teams tend to boost the productivity of those around them*