The Economist

A slow-burning fuse

A special report on ageing populations | June 27th 2009

A slow-burning fuse

Also in this section

Acknowledgments
Many people helped with the preparation of this report. In addition to those mentioned in the text, particular thanks go to Andrew Biggs, David Bloom, Gary Burtless, Mariko Fujiwara, Chiemi Hayashi, Ludwig Kanzler, Jeffrey Kingston, Laurence Kotlikoff, John Llewellyn, Lu Jiehua, George Magnus, Atsushi Seike, Machiko Osawa, Haruo Shimada, Richard Suzman, David Wise and a wealth of experts at the OECD.

A list of sources is at
Economist.com/specialreports

An audio interview with the author is at
Economist.com/audiovideo

More articles about ageing are at
Economist.com/ageing

Age is creeping up on the world, and any moment now it will begin to show. The consequences will be scary, says Barbara Beck

STOP thinking for a moment about deep recession, trillion-dollar rescue packages and mounting job losses. Instead, contemplate the prospect of slow growth and low productivity, rising public spending and labour shortages. These are the problems of ageing populations, and if they sound comparatively mild, think again. When the IMF earlier this month calculated the impact of the recent financial crisis, it found that the costs will indeed be huge: the fiscal balances of the G20 advanced countries are likely to deteriorate by eight percentage points of GDP in 2008-09. But the IMF also noted that in the longer term these costs will be dwarfed by age-related spending. Looking ahead to the period between now and 2050, it predicted that "for advanced countries, the fiscal burden of the crisis [will be] about 10% of the ageing-related costs" (see chart 1 on the next page). The other 90% will be extra spending on pensions, health and long-term care.

The rich world's population is ageing fast, and the poor world is only a few decades behind. According to the UN's latest biennial population forecast, the median age for all countries is due to rise from 29 now to 38 by 2050. At present just under 11% of the world's 6.9 billion people are over 60. Taking the UN's central forecast, by 2050 that share will have risen to 22% (of a population of over 9 billion), and in the developed countries to 33% (see chart 2, next page). To put it another way, in the rich world one person in three will be a pensioner; nearly one in ten will be over 80.

This is a slow-moving but relentless development that in time will have vast economic, social and political consequences. As yet, only a few countries with already-old populations are starting to notice the effects. But labour forces are now beginning to shrink and numbers of pensioners are starting to rise. By about 2020 ageing will be plain for all to see. And there is no escape: barring huge natural or man-made disasters, demographic changes are much more certain than other long-term predictions (for example, of climate change). Every one of the 2 billion people who will be over 60 in 2050 has already been born.

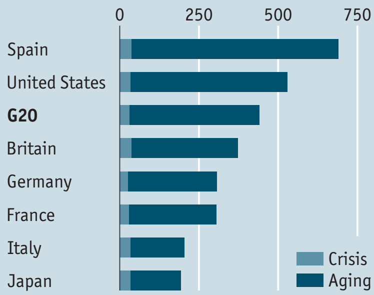
The reasons why

What is making the world so much older? There are two long-term causes and a temporary blip that will continue to show up in the figures for the next few decades. The first of the big causes is that people everywhere are living far longer than they used to. This trend started with the industrial revolution and has been slowly gathering pace. In 1900 average life expectancy at birth for the world as a whole was only around 30 years, and in rich countries under 50. The figures now are 67 and 78 respectively, and still rising. For all the talk about the coming old-age crisis, that is surely something to be grateful for—espe-

What crisis? 1

Net present value of impact on fiscal deficit of recent crisis and age-related spending to 2050

% of GDP



Source: IMF

cially since older people these days also seem to remain healthy, fit and active for much longer.

A second, and bigger, cause of the ageing of societies is that people everywhere are having far fewer children, so the younger age groups are much too small to counterbalance the growing number of older people. This trend emerged later than the one for longer lives, first in developed countries and now in poor countries too. In the early 1970s women across the world were still, on average, having 4.3 children each. The current global average is 2.6, and in rich countries only 1.6. The UN predicts that by 2050 the global figure will have dropped to just two, so by mid-century the world's population will begin to level out. The numbers in some developed countries have already started shrinking. Depending on your point of view, that may or may not be a good thing, but, as this special report will argue, it will certainly turn the world into a different place.

The temporary blip that has magnified the effects of lower fertility and greater longevity is the baby-boom that arrived in most rich countries after the second world war. The timing varied slightly from place to place, but in America—where the effect was strongest—it covered roughly the 20 years from 1945, a period when nearly 80m Americans were born. The first of them are now coming up to retirement. For the next 20 years those baby-boomers will be swelling the ranks of pensioners, which will lead to a rapid drop in the working population all over the rich world.

As always, the averages mask considerable diversity. In the richer parts of Asia the populations of Japan, South Korea and Taiwan are already old and will rapidly get even older. Europe is split several ways: Germany, Italy and Spain, for instance, now have tiny families and are therefore ageing fast, whereas France, Britain and most of the Nordic countries have more children to keep them younger. In eastern Europe, and particularly in Russia, birth rates are low and life expectancy has also taken a knock. America, thanks to a resilient birth rate and high immigration, will still be fairly youthful by mid-century.

Most developing countries do not have to worry about ageing—yet. Although birth rates have dropped, populations are still young and will remain so for a few decades yet, even though HIV/AIDS has killed off many active adults. But in the longer term the same factors as in the rich world—fewer births, longer lives—will cause poorer countries to age too. And even before that happens, the absolute numbers of older people there will swell alarmingly, simply because these countries are so populous. They already have 490m over-60s, and that total is due to more than triple by 2050. Since most poor countries have little or nothing in the way of a state-funded welfare net, those numbers will he hard to manage.

Alone among developing countries, China is already ageing fast. This is mainly because for the past 30 years it has been keeping a tight lid on population growth. This did not quite amount to a "one-child policy", as it is often called (the average number of children per woman was closer to two), but it was highly effective in stabilising numbers. The population will peak at about 1.46 billion in 2030 and then decline gently. Although China has seen stupendous economic growth in recent years, it is still some way off being rich, so it will have trouble absorbing the cost of this rapid ageing. This special report will take a closer look at what it is doing about the problem, but will otherwise confine itself mainly to the developed world.

Fewer hands make heavy work

Macroeconomic theory suggests that the economies of ageing populations are likely to grow more slowly than those of younger ones. As more people retire, and fewer younger ones take their place, the labour force will shrink, so output growth will drop unless productivity increases faster. Since the remaining workers will be older, they may actually be less productive.

In most rich countries the ratio of people of working age to those of retirement age will deteriorate dramatically over the next few decades. In Japan, for instance, which currently has about three workers to every pensioner—already one of the lowest ratios anywhere—the number will halve by 2050. True, there will be fewer young people to maintain, but children cost less than old people and the overall burden will be much heavier than it is now. The OECD has estimated that over the next three decades the age-related decline in the labour force could cut growth in its member countries by a third compared with the previous three decades.

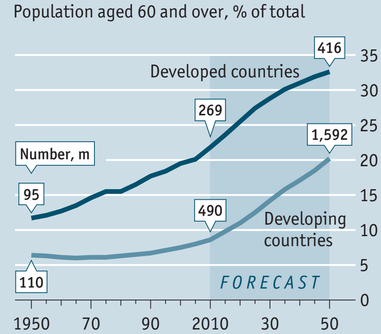
Ageing will affect financial markets too. According to Franco Modigliani's and Richard Brumberg's life-cycle theory of savings, put forward in the early 1950s, people try to smooth out their consumption over the course of their lives, spending more in their youth and old age and saving more in their middle years; so as populations age, savings in the economy as a whole will be run down and assets sold off. This has led to fears of an "asset meltdown" as everyone sells at the same time. But a number of academic studies have so far failed to find much evidence of this. Older people in America, for instance, do save less than those in their middle years, but as a group not much less.

James Poterba, an economics professor at MIT, says America has three kinds of retirement households: the least well-off, perhaps a quarter of the total, who will maintain something close to their previous standard of living on Social Security and Medicare, even with few savings; the richest 10-15%, who hold significant assets and may not need to draw them down; and the large majority in between, who will have to rely on their own, often inadequate, savings in retirement.

For the public finances, an ageing population is a huge headache. In countries where public pensions make up the bulk of retirement income, these will either swallow up a much larger share of the

A greying world 2

Population aged 60 and over, % of total



Source: "World Population Prospects", United Nations, 2009 budget or they will have to become a lot less generous, which will meet political resistance (and remember that older people are much more inclined to vote than younger ones). Spending on health, which in most rich countries has been going up relentlessly anyway, is likely to grow even faster as patients get older. And because of a huge increase in the number of over-80s, a lot more money, and careful thought, will be needed to provide long-term care for them as they become frailer.

What can be done? As the IMF puts it, "the fiscal impact of the [financial] crisis reinforces the urgency of entitlement reform." People in rich countries will have to be weaned off the expectation that pensions will become ever more generous and health care ever more all-encompassing. Since they now live so much longer, and mostly in good health, they will have to accept that they must also work for longer and that their pensions will be smaller.

Will the recession make it easier or harder to introduce the required reforms? If people are feeling poorer, they may think that their government should do more for them, not less. Yet some say that if everything is in a state of upheaval already, change becomes easier to bring about. They cite a phrase currently much used in the Obama White House: "Never waste a good crisis." ■

Suffer the little children

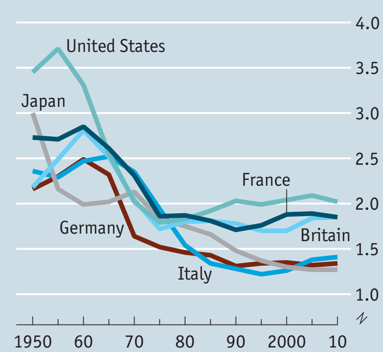
Most of the rich world is short of babies

IN GERMANY a mother who neglects her children is known as a *Rabenmutter* (raven's mother). Many older Germans slap that label on women with small children who go out to work. Young women in Germany, as elsewhere, are torn. They enjoy their jobs but find it hard to combine them with having a family, for a host of practical reasons such as school hours and lack of child care as well as public disapproval. Faced with that dilemma, some give up work. Others give up having children. About a quarter of the current generation of German women in their 40s have remained childless. The country's fertility rate (the number of children a woman can expect to have in her lifetime) is now a rock-bottom 1.3—the same as in Japan and Italy, where similar attitudes prevail (see chart 3). The chancellor, Angela Merkel, has acknowledged that her country needs to be more child-friendly.

This is not just because children are nice to have. As almost everybody lives ever longer, a reasonable supply of young people is needed to counterbalance—and fund the pensions of—a growing number of older folk. In fact, fertility rates have dropped steeply in all OECD countries in the past few decades, from an average of 3.2 children per woman in 1960 to 1.6 now. The rate needed to keep the population stable (assuming unchanged mortality rates and no net immigration) is 2.1. According to the UN's latest population estimates, fertility is currently below replacement level in over 70 countries, which account for nearly half the world's population. But even in the remaining, poorer, half of the world, fertility rates have come down spectacularly, from 5.2 in 1970-75 to 2.6 now. This has been the most important factor by far in the ageing of populations around the world.

Hushabye baby 3

Fertility rates



Source: "World Population Prospects", United Nations, 2009

In a few countries where fertility rates are already very low, such as Japan and South Korea, they are still falling. But in others the decline has been arrested and in some, including America, Britain and France, it has been reversed in the past decade or two. That has encouraged governments in a number of rich countries to believe that, with the right policies, they too could boost fertility to closer to replacement levels and help moderate the social burden of ageing. But it will not be easy.

Encouraging women to have more babies used to be politically fraught. Radical feminists everywhere opposed the idea, and in Germany, Italy, Portugal and Spain it carried fascist baggage. But times have changed and now a number of countries are actively encouraging larger families.

Japan has seen especially rapid greying. Immediately after the second world war it was one of the world's youngest developed countries, with a median age of 22. But because so few people were having babies, the median age has doubled since then and is still rising fast. The population, currently about 127m, has already started to decline. It will drop below 100m by 2046 and continue downwards rapidly thereafter, according to a white paper prepared for the Cabinet Office—unless the birth rate can be nudged up (or the Japanese can overcome their dislike of immigration).

A special unit in the Cabinet Office is now working on measures to persuade young Japanese families to do their bit. It is considering things like bigger family allowances, more favourable tax treatment of families and many more nursery places to shorten the long waiting lists. To put more steam behind such initiatives, the government in 2005 appointed a minister for gender equality and social affairs, Kuniko Inoguchi. She has been a tireless campaigner for Japanese women, though her job soon fell victim to a change of government.

Will these efforts bear fruit? Florian Coulmas, director of the German Institute for Japanese Studies in Tokyo and author of a book on "Population Decline and Ageing in Japan", is one of many who think not. He reckons that the only way Japanese women can manage their difficult lives is by postponing marriage and having fewer, if any, children. Because of the country's culture of long working hours, husbands with good jobs spend little time at home and expect their wives to cope with all domestic tasks. No wonder that 70% of Japanese women stop work when their first child arrives. If they return to it at all it is usually much later, and then mostly to badly paid and unchallenging part-time jobs. By then they may already be caught

Just the one, thanks

up in another domestic bind: looking after their husband's old parents.

Japan is an extreme example, but many other rich countries have similar problems. One reason why there are fewer babies is that women everywhere are marrying and having children much later in life. Between 1970 and 2000 the mean age at which women had their first child in a range of OECD countries rose by more than a year every decade, and many more women now have their families in their 30s. The question is whether they have the same number of children as before but later, or whether they will have fewer overall.

Anna Cristina d'Addio, an expert on fertility policy at the OECD in Paris, thinks they will probably have fewer children in total than if they had started earlier, even though more of them now give birth in their 40s. Surveys show that women generally start off wanting bigger families than they end up with. If the children do not start arriving until later in life, there is less time to reach that ideal number. And once people have got used to smaller families, the number of children they say they want shrinks too. Demographers talk about a "low-fertility trap".

Postponing marriage and childbirth is part of a bigger change in the lives of many women in rich countries. Over the past few decades many more of them have been getting more highly educated and taking paid jobs. That changed their ideas about what they wanted out of life. For a while birth rates were lower in countries where lots of women worked outside the home, but more recently that trend has been reversed: higher fertility and higher employment rates for women go together.

That may not be as counter-intuitive as it seems. In a modern society children are an economic liability, not an asset. They have to be fed, clothed, housed, looked after, educated and entertained. As a rule of thumb, economists reckon that a family with one child needs 30% more income than a childless couple to maintain the same living standard. The obvious way to keep the household financially afloat is for the mother to go out to work.

If governments anxious to rejuvenate their populations want her to do that, they can help in a number of ways. Extensive research in 16 OECD countries has shown that there is a strong correlation between high female employment rates and large government cash transfers to families, generous replacement pay during parental leave, the availability of plenty of part-time work and lots of formal child care. Where all these things are present, fertility rates tend to go up. France and most of the Nordic countries have embraced such policies and been rewarded with a rise in fertility close to replacement level. It does not come cheap: the OECD reckons that they spend 3-4% of GDP on direct benefits to families, far more than do Germany, Japan and southern Europe.

The odd ones out are America and Britain, which both have lots of women at work and fertility rates close to replacement level (with immigration making up the rest). Neither of them exactly spoils its families with financial inducements or state-provided child care, but their flexible labour markets make it easy for women to get back into work after childbirth, and public opinion approves of working mothers. They also have high levels of teenage pregnancy that help bump up the figures.

Ms d'Addio says the very low fertility rates now seen in many OECD countries are not inevitable, and governments should try to lessen the obstacles to childbearing faced by individuals and families. But having children is a personal choice, and if people really do not want them there is nothing governments can do. The UN expects fertility in developed countries to recover somewhat by 2050, to 1.8 children per woman, but many experts think that forecast is too optimistic. ■

A world of Methuselahs

The benefits, and the costs, of living longer

IT IS written in the Bible's Book of Genesis that Methuselah lived to be 969. He held the record, but there seem to have been plenty of other multicentenarians around at the time, including Noah and old Adam himself. Their ages are not to be taken literally. In another part of Genesis, man's lifespan is put at a mere 120 years. The person with the longest documented life in modern times, Jeanne Calment, reached 122, but no one else has come close.

In most of recorded history even the more familiar three score years and ten was rare. Angus Maddison, an economic historian, has estimated that life expectancy during the first millennium AD averaged about 25 years (which in practice meant that lots of children died very young and many of the rest survived to middle age). The big turnaround came with the industrial revolution, mainly because many more children survived into adulthood, thanks to better sanitation, more control over epidemics, improved nutrition and higher living standards.

By the beginning of the 20th century average life expectancy in America and the better-off parts of Europe was close to 50, and kept on rising. By mid-century the gains from lower child mortality had mainly run their course. The extra years were coming from higher survival rates among older people. The UN thinks that life expectancy at birth worldwide will go up from 68 years at present to 76 by 2050 and in rich countries from 77 to 83. (These are averages for both sexes; women generally live five or six years longer than men, for reasons yet to be fathomed). Most experts now agree that there will be further rises, but disagree about their extent.

Things fall apart

Some of them argue that the human lifespan is finite because bodies, in effect, wear out; that most of the easy gains have been made; and that the rate of increase is bound to slow down because people now die mostly of chronic diseases—cancer, heart problems, diabetes—which are harder to fix. They also point to newer health threats, such as HIV/AIDS, SARS, bird flu and swine flu, as well as rising obesity in rich countries—to say nothing of the possibility of fresh pandemics, social and political unrest and natural disasters.

Nearly 30 years ago James Fries at Stanford University School of Medicine put a ceiling of 85 years on the average potential human life span. More recently a team led by Jay Olshansky at the University of Illinois at Chicago said it would remain stuck there unless the ageing process itself can be brought under control. Because infant mortality in rich countries is already low, they argued, further increases in overall life expectancy will require much larger reductions in mortality at older ages. In Mr Olshansky's view, none of the life-prolonging techniques available today—be they lifestyle changes, medication, surgery or genetic engineering—will cut older people's mortality by enough to replicate the gains in life expectancy achieved in the 20th century.

That may sound reasonable, but the evidence points the other way. Jim Oeppen at Cambridge University and James Vaupel at the Max Planck Institute for Demographic Research in Rostock have charted life expectancy since 1840, joining up the figures for whatever country was holding the longevity record at the time, and found that the resulting trend line has been moving relentlessly upward by about three months a year. They think that by 2050 average life expectancy in the best-performing country could easily reach the mid-90s.

Rises in life expectancy have been habitually underestimated because it seemed unlikely that the improvement could go on for ever, and just as regularly the figures have had to be revised soon afterwards. Some experts now think there may be no theoretical limit at all, pointing to the huge rise in the number of centenarians in the past few decades. In America they are the fastest-growing section of the population, with an increase from 3,700 in 1940 to over 100,000 now.

Why are people living ever longer? Robert Fogel at the University of Chicago, a Nobel prize-winner in economics, reckons that improved medical care and technology are only part of the answer. Another part, he thinks, is something he has dubbed "technophysio evolution". Over the past few centuries humans have developed more resilient physiques because they gained unprecedented control over their environment and their living conditions. Western people's average body size has increased by 50% over the past 250 years. Larger body size (but not obesity), Mr Fogel's research has shown, is associated with better health and longer life.

But modern life has its downsides too. Stress is often seen as a life-shortening factor—though perhaps the effects are not as lethal as some people think, or else the Japanese, who are famous for working long hours, would not have the highest life expectancy in the world.

Another hazard of affluence is getting fat. Around 10-20% of the adult population in many rich countries, and over 30% in America, are now clinically obese. Overweight people are at greater risk of cardiovascular and respiratory diseases, cancer, type-II diabetes and other life-shortening ailments—though it is not yet clear whether the effects are strong enough to cancel the trend to greater longevity.

Blessing or curse?

And life expectancy can go down as well as up. In much of eastern Europe it started dropping in the 1980s in response to the upheaval in the region, and despite a subsequent slight recovery it has still not regained the level of the 1960s.

People almost everywhere could extend their life spans further just by doing a few sensible things, such as not smoking, drinking only in moderation, eating lots of fruit and vegetables and taking regular exercise. Educated folk are better at keeping to such rules, and as a group they live markedly longer than those with only basic schooling. Richer people, unfairly, also live longer than less well-off ones, even in the developed world.

But all this is tinkering at the edges. Mankind's dream has been to conquer ageing altogether, and scientists are working on it. Spare-part surgery to replace worn-out bits of the anatomy is already well-established and will get better with the use of stem-cell technology. For a more general effect, experiments on rodents have shown that a severely restricted but balanced diet can increase their lifespan by about 30%. But nobody knows whether this would work in humans, and even if it did, there might be few takers.

The longer-term hope is to find a way of switching off the ageing process by manipulating the appropriate genes, which in theory could make people near-immortal (though they could still die of accidents and diseases). But if that were feasible, the consequences would need to be carefully thought through. In Jonathan Swift's "Gulliver's Travels", the hero meets a tribe of immortals, the Struldbruggs, who far from being wise and serene turn out to be a miserable lot: "Whenever they see a funeral, they lament and repine that others have gone to a harbour of rest to which they themselves never can hope to arrive."

Hale and hearty

People in the rich world can now expect to live, on average, more than a quarter of a century longer than they did 100 years ago. Is that a blessing or a Struldbruggian curse? Clearly it depends on whether they become old and frail at the same age as before and just limp on for much longer, or if the extra years are hale and hearty ones.

Most of the evidence supports the more cheerful view. Research led by Kenneth Manton at Duke University found that in recent years disability above the age of 65 in America has been falling significantly. In other rich countries the picture is more mixed. When the OECD recently looked at

12 member countries, it found clear signs of a recent decline in disability in elderly people in only five of them (including America). But other studies produced more optimistic results.

By and large, people do now seem to remain in good shape for longer. Moreover, the period of ill health that usually precedes the final goodbye has got shorter in the past few decades, which demographers call "compression of morbidity" (as a rule of thumb, the bulk of spending on an individual's health care is concentrated in the last year or two of life, and particularly in the final six months). This compression has a variety of causes, including the shift from manual to physically less demanding white-collar work, rising levels of education and much-improved health care and medical technology, from keyhole surgery to heart pacemakers. Eighty, it is said, is the new 65.

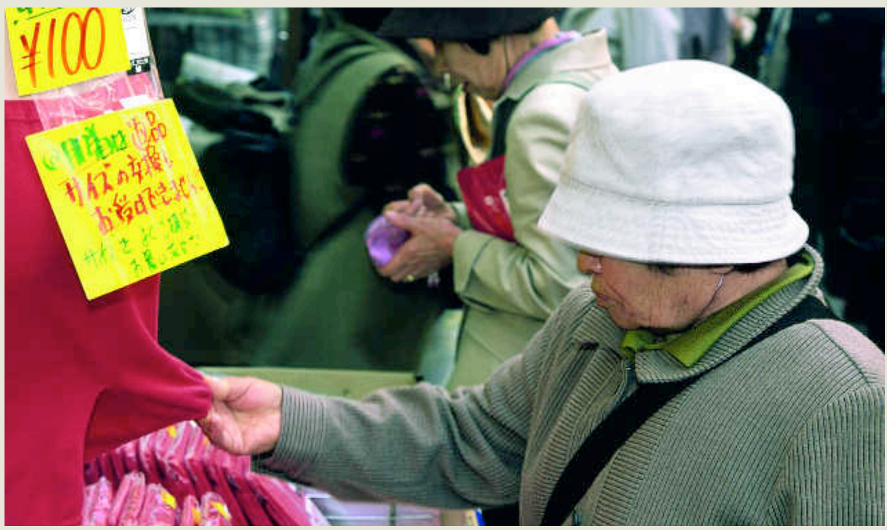
But even fairly fit older people need more health care than younger ones, not least because they often suffer from chronic diseases that are expensive to treat. In the EU, one estimate puts health-care spending on the elderly at about 30-40% of total health spending. So will the better health of an ageing population, good as it has been for so many, impose unaffordable costs on public-health budgets?

Over the past few decades all OECD

The silver dollar

There is money to be made in the grey market, but it takes thought

WHEN Tokyo residents of a certain age want to go shopping, they head for Sugamo, in the north of the city. The main street, Jizo-dori, features a variety of shops selling food, sweets, medicaments, bits and bobs and, most notably, a huge choice of woolly underwear in bright red, a favourite colour with the elderly because it is thought to be lucky and health-giving. The local McDonald's has a section with seats designed for older people, and a karaoke bar offers songs from the good old days. For spiritual refreshment, there is the four-centuries-old Kogan-ji Buddhist temple, where visitors buy incense and pray for a long life—and a quick and easy exit.



Jizo-dori's temptations

Jizo-dori has a long tradition, but businesses everywhere now realise that in future there will be a lot more older folk with money to spend. In most rich countries the baby-boomers born after the second world war were more numerous, better educated and better paid than any generation before them. When those boomers retire, they will want to do it in style, plastic surgery and all.

What else might they spend their money on? The glossy magazine published by America's AARP, a powerful lobbying organisation for the over-50s that boasts 40m members, is bursting with ads. If those advertisers have got their market right—and they are paying big money for the older eyeballs—this group of customers can be persuaded to buy a plethora of products, from travel and financial services to mobile phones, medicines and comfy beds.

Some businesses are already adjusting their ranges to cater for the grey market. Volkswagen, for example, has developed a car called the Golf Plus that has higher seats and more space than the standard model. A number of consumer-goods makers have started making smaller pack sizes for older, smaller households.

Japan, which has already had lots of practice with older consumers, has developed some ingenious new products for the grandparent generation. They include a furry robot seal, sold as a pet substitute, that has proved a hit with lonely old folk. And makers of personal-care products recently put on a Tokyo fashion show for incontinence pads, featuring pink and frilly varieties instead of the dull old white sort.

This is a tricky market to tackle. Advertisers are often accused of trying too hard to sell to the young when much of the spending power is now concentrated in older age groups, but it is not a simple matter of moving "from rocking horse to rocking chair". When companies try to cater for older customers, they do not always get it right. Attempts to "seniorise" ads, for example, have mostly drawn a poor response because their targets think of themselves as younger than they really are. That refusal to settle for being "old" will only get stronger as the baby-boomers start turning 65.

But the hardest thing about selling to older people is that they are such a heterogeneous group. Someone in his 70s may be in frail health and living in an old folks' home; or he may be running for president of the United States, as John McCain did last year. There are many shades of grey.

countries have seen their health spending grow considerably faster than their economies. Ageing populations will add further momentum to that growth. Howard Oxley, a health-care expert at the OECD, reckons that increased spending on health and long-term care for the elderly could amount to an extra three-and-a-half percentage points of rich countries' GDP by the middle of the century—and a lot more if spending on medical technology continues to go up at current rates.

Measured by spending on health care as a share of GDP, America already tops the list, shelling out the equivalent of more than 15% of GDP (see chart 4). The American government's health-care spending will be hugely affected by ageing because of Medicare, the state-funded health-care programme for the elderly and disabled, and Medicaid, the programme for the poor (and often also old, because it covers long-term care).

President Barack Obama is determined to reform his country's health-care system to improve coverage and, eventually, drive down costs. More money does not always produce better results. People in America are less healthy and die sooner than in Britain, which proportionately spends little more than half as much on its health care. According to David Cutler, an economics professor at Harvard who has advised the president on the reform, even doctors believe that around 30% of money spent on health care in America is wasted.

Peter Orszag, head of the Office of Management and Budget, has recently been praising the work of a group of medical experts at Dartmouth Medical School, led by Elliott Fisher, which has been compiling an atlas of regional variations in American medical practice and health-care spending, mainly for people on the Medicare programme. It found that in 2006 Medicare spending varied more than threefold across American hospital referral regions. Again, higher spending does not seem to result in better care or greater patient satisfaction. Because the system has encouraged the provision of lots of doctors, specialists, hospitals and expensive diagnostic kit, all of them are kept busy without much regard to results.

The trouble with health care in America, says Muriel Gillick, a geriatrics expert at Harvard Medical School, is that people want to believe that "there is always a fix." She argues that the way Medicare is organised encourages too many interventions towards the end of life that may extend the patient's lifespan only slightly, if at all, and can cause unnecessary suffering. It would often be better, she thinks, not to try so hard to eke out a few more hours or weeks but to concentrate on quality of life.

Take care

But long before they get to that point, growing numbers of old people will become less able to look after themselves and need more care. Across the OECD, spending on long-term care is already equivalent to around 15% of total health spending and is rising fast. The great bulk of that care—an estimated 80%—is still provided by family and friends, the traditional source of support for the elderly. But more women are going out to work, so fewer of them have time to look after old folk and formal help

And much more to come

Health spending as % of GDP, 2006

Sources: "Society at a Glance", OECD, 2009; United Nations

is becoming increasingly important.

In most developed countries only a small minority of over-65s—between 3% and 6%—live in institutions. Keeping old people in nursing homes or hospitals is expensive, staff is hard to find, and in any case most people would much rather be looked after at home. Many countries are now providing grants to adapt homes, paying families for the care they provide and supplying helpers to give a hand with things like dressing and bathing.

With far more people reaching a great age, a lot more such care will be needed in future. How will it be paid for? A few far-sighted countries—including Germany, the Netherlands, Luxembourg and Japan—have already introduced mandatory long-term-care insurance schemes. Others may have to follow. ■

Scrimp and save

Pensions will have to become far less generous

THE past few decades have been the cushiest time ever to be a pensioner in a developed country. Not only has the world been getting ever richer (at least until very recently), which rubbed off on pensioners too; but as a group they have also become much more comfortable relative to the rest of the population. In recent years mandatory pensions across the OECD, net of taxes and social-security contributions, averaged over 70% of previous net earnings for people on average pay and over 80% for the low-paid. For the better-off the replacement ratio was lower, but they can cope.

The official retirement age in most countries has stayed much the same even though people are living a lot longer, so pensioners have been getting more years in which to enjoy themselves without the pressures of work. In fact, many of them stopped working well before it was time for their gold watch because they were offered irresistible inducements to go early. In Austria, for instance, the official retirement age for men is 65 but the average actual age is 59, which means that many of them leave even earlier.

Being generous to pensioners was affordable in 1980, when in the rich world there were only about 20 people of retirement age for every 100 people of working age. But that ratio has already risen to 25% and by 2050 it will be around 45%, meaning that there will be only about two workers for every pensioner. In some countries things will be much worse: Japan is heading for a ratio of over 70%. Something has to be done.

The most urgent need for reform will be

in public pensions, which in most developed countries are the biggest source of retirement income. They usually make up most if not all of the pensions of low and medium earners. Most of these pensions work on the pay-as-you-go (PAYG) principle, whereby today's workers pay for today's pensioners, on the understanding that the next generation will do the same for them when their time comes.

Now that labour forces are starting to contract and the number of pensioners is rising, these schemes are rapidly becoming unsustainable. One theoretical answer is to move to funded schemes, in which pensions are paid out of a big pot of accumulated savings. Such schemes are common in the private sector, but a public PAYG scheme is very hard to turn into a funded one because one generation of workers would have to pay both for themselves and their parents' generation.

Unsustainable

Many rich countries already spend around 8% of GDP on public pensions, and some—Germany, Italy, France—a lot more. Richard Jackson at the Centre for Strategic and International Studies (CSIS), a think-tank in Washington, DC, calculates that if nothing is done the cost of state pensions in developed countries will almost double, from an average of 7.7% of GDP now to about 15% by 2050. In Japan and some "old" western European countries it could rise to well above 20%.

In a "no-change" scenario public expenditure on health would also rise steeply, so by 2050 the developed world would be spending nearly a quarter of its GDP on these two items alone. To prevent increases on that scale, about half the rich countries have already introduced various reforms over the past decade that have made their pensions less generous. Many more cutbacks are bound to follow.

The most obvious thing that needed reconsidering was the retirement age. When America introduced its Social Security (public pension) scheme in 1935 to prevent poverty in old age, the retirement age was 65 and life expectancy at birth was 62. In 1983 a decision was made to raise the official retirement age to 67, but in steps so tiny that the move will not be completed until 2027. Life expectancy at birth in America now averages about 78, so the promise of a pension is worth a great deal more than it was back in the 1930s. As it happens, America's public pension system is among the rich world's less generous (which means that financing it should remain manageable), but it still accounts for more than half the average pensioner's income.

In the past few decades a number of governments offered various carrots to encourage people to start drawing their pensions before the official retirement age. They often claimed that this would free up jobs for younger people. Any economist could have told them that this was a prime example of the "lump-of-labour" fallacy (the idea that there is only a fixed number of jobs in an economy at any one time) and would not work. It didn't, but the workers were happy to go and their employers were happy to lose them. Private defined-benefit final-salary schemes (explained below), where they existed, also encouraged early retirement because they did not impose an actuarial penalty on people leaving before the due date.

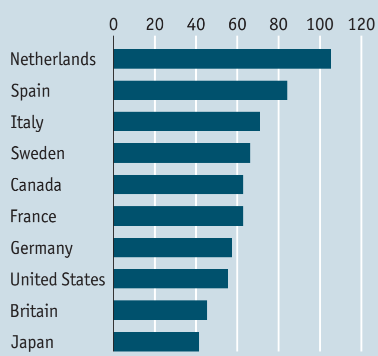
All this meant that the actual ("effective") retirement age in many rich countries, particularly in Europe, dropped well below the official one. By 2004 in the OECD as a whole only 60% of people aged between 50 and 64 were working (compared with 76% for those aged 24 to 49). It was the opposite of what was needed to deal with rising life expectancy, so in recent years governments in many countries have started to dismantle some of the incentives to leave early, against fierce political resistance. This has halted, and in some cases reversed, the trend towards ever earlier retirement.

But that is only a beginning. Italy, which had a particularly unaffordable public pension scheme, has not only raised the retirement age but also increased the number of contribution years needed to qualify for a pension and cut back on benefits for the highest earners—though the effects will be felt only by people who retire from 2017 onwards. A number of other countries are gradually reducing the replacement rate of their pensions, particularly for the better-off, though most of them have been careful not to squeeze the poorest pensioners too hard.

The comforts of old age 5

Net mandatory pension benefits

As % of net median earnings, 2005



Source: "Pensions at a Glance", OECD, 2007

Good try, but it didn't work

Britain, unusually, found itself having to move the other way. Its state pension had become impossible to live on, thanks to a little-noticed decision by a Conservative government in 1980 to link the rise in the state pension to living costs instead of average earnings. In 2006 a government-appointed commission chaired by Lord Turner recommended reinstating the link with earnings, which is due to happen in 2012. Britain's solution to the problem of unaffordable public pensions—to downsize them and hope that the private sector would fill the gap—had proved untenable.

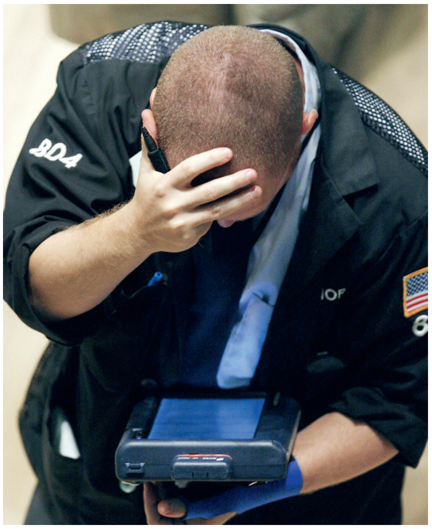
Now the debate about sustainable pension systems for the future is all about spreading the load over several pillars. There should be a basic state pension to meet basic needs in old age, perhaps with an earnings-related element on top of it; a private occupational pillar, with employers and employees both making contributions; and a voluntary pillar, with private individuals saving for their retirement through a variety of instruments. Governments are expected to do their bit not only by providing the state-funded part, but also by offering tax incentives for the second and third pillars.

To take the pressure off public pensions, many governments have encouraged private pension plans, which have expanded rapidly in the past ten years. In half the members of the OECD private pensions are now either mandatory or cover the vast majority of the workforce. In some countries, including America, Australia, Denmark and Switzerland, private pensions now account for up to half of total retirement income.

But even before the recent financial crisis it was clear that shifting more responsibility for retirement income to the workers themselves raises big problems. In countries where public pensions are relatively small, such as America, Britain and Ireland, people are simply not saving enough to maintain their living standards in retirement. McKinsey, a consultancy, recently looked at the finances of a large sample of baby-boomers, due to start drawing their pensions soon, and found that about two-thirds of them had failed to make enough financial provision for their retirement to maintain their previous standard of living, even though as a group they had always earned well. That fits with the trend of a steady decline in American personal saving rates in the past 20 years.

And even those who had been putting money by for their old age may now be having second thoughts. In America one of the main vehicles for occupational pensions are 401(k) plans, named after a section in the Internal Revenue Code that allows employees to make tax-free payments into a defined-contribution plan. Employees can choose from various investment options, usually a range of mutual funds. Last year's stockmarket crash caused a huge drop in the value of most such plans. Many people who had planned to retire in the near future found they had to carry on working. Suddenly prudence did not seem such a good idea.

In countries where private occupational pensions play a large part, such as America and Britain, they have become less opulent and more uncertain. In recent years there has been a big shift from defined-benefit schemes (where the eventual pension depends on a formula that takes into account the level of pay and years of contributions) to defined-contribution schemes (where a certain level of contribution is agreed on and the money invested, with the eventual pay-out depending on the return on that investment).


There goes my 401(k) plan

Defined-benefit schemes worked fine as long as stockmarkets were rising, enabling companies with such schemes to take "pension holidays"—putting a freeze on further contributions because their investments had done so well. But when markets turned down, large holes opened up in companies' pension funds that had to be filled from current operations. Life expectancy also proved longer than forecast.

Defined-contribution schemes avoid such problems for the companies by handing all the risks to employees. It is the employees who have to worry about how their pension investments will perform and whether they will have enough to live on when they retire. If their pension funds are invested in their own company (not recommended, but it happens), they could lose everything, as workers at Enron, an energy company that collapsed spectacularly in 2001, found to their cost. Most people do not know enough about finance to make informed investment decisions.

In America, which began to move away from defined-benefit schemes two decades ago, defined-contribution plans already account for the great majority of private-sector pension schemes. Companies in Britain started later but advanced faster. Earlier this month two large British companies, BP and Barclays, announced they were closing their defined-benefit schemes, respectively, to new and existing members. Defined-contribution plans are not only riskier for the employee, but companies often contribute less to them and the resulting payouts are smaller.

In future, a growing number of people will have to manage on less generous and more uncertain occupational pensions. The big exception are public-sector workers, typically accounting for 10-20% of the total workforce in rich countries, who for the most part continue to enjoy good defined-benefit pensions. But their privileges are now coming under fire.

So if state pensions are having to be reined back, private pensions are getting meaner, riskier and less predictable, and money saved for retirement is threatened by financial crises, what is the man in the street to do to make ends meet? The only thing for it, say all the experts in unison, is to carry on working. ■

Work till you drop

Retirement has got out of hand

HOW much golden leisure can you expect at the end of your working life? The OECD has calculated for how many years people in its member countries are now likely to be drawing their pensions, starting not from their official but their actual retirement age. It found that men could look forward to between 14 and 24 years in retirement and women between 21 and 28 (see chart 6, next page). In many countries that was half as long again as in 1970, and in some of them twice as long. And the figures are probably an underestimate because they are based on life expectancy as it is now, not as it will be in future.

Retirement has been overdone. The original idea was that people should enjoy a bit of a rest after a life at work, but nobody imagined that the rest would stretch to almost a quarter-century. Some countries have already raised their official retirement age; others are debating whether it still makes sense to have a specific retirement age at all. One widely touted idea is to phase in retirement over a number of years. It does not seem like a good idea for people to be working at full tilt one day and twiddling their thumbs the next.

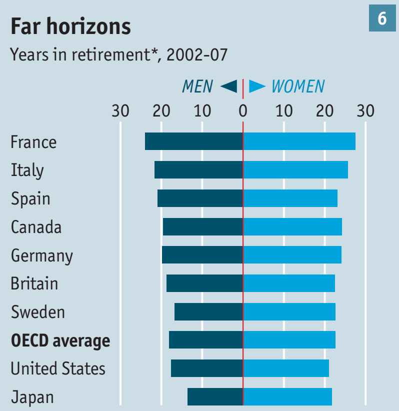
From an economic point of view, getting people to work for a few more years would solve many of the problems associated with ageing populations. By carrying on, those workers will not only save the public purse money by not drawing a pension but will also continue to pay taxes and social-security contributions, so those extra years are doubly valuable.

Moreover—though it seems an outlandish thought in the middle of a deep recession and rising unemployment—ageing populations are likely to cause labour shortages. In some countries and some sectors these are showing up already. In Germany, where the labour force is due to start shrinking from next year, a study by the Institute for the German Economy in Cologne identified a shortage of about 70,000 engineers in 2007, a rise of nearly half on the year before. The obvious place to look to fill such gaps is among well-qualified older people, and indeed the institute found that companies had stepped up their recruitment of engineers over 50.

Many countries already have laws to

Far horizons

Years in retirement*, 2002-07



Source: "Society at a Glance", OECD, 2009

*Life expectancy from actual date of retirement

prevent discrimination on age grounds. America led the way with its Age Discrimination in Employment act in 1967, designed to make sure that the over-40s (greybeards of their day) were given the same job chances as younger people. Among other things, it prohibited reference to age in job advertisements. The act has since been amended a couple of times and now rules out mandatory retirement on age grounds for most jobs. That seems to have helped keep older workers in jobs.

The European Union in 2000 issued a directive that obliges member countries to ban discrimination in employment on a number of grounds, including age. France imposes a tax called the Delalande contribution (now being phased out) on employers who sack older workers. Although this can be quite hefty—up to a year's pay—it does not appear to have saved many jobs. Rather, it has discouraged employers from hiring older workers.

Various countries have concocted an alphabet soup of initiatives and pilot projects to get older people into work and keep them there, with mixed results. Advocacy groups for older people such as America's powerful AARP, and a growing number of similar organisations that are springing up in other rich countries, have helped to raise awareness of the issue. But survey after survey finds that where employers have a choice, they prefer to hire younger workers. Are they right?

On the face of it, there are plenty of reasons to plump for youth. In most countries, pay goes up as workers become more experienced and productive, and then declines again towards the end of their careers. But in some places—for example, France, Germany and Spain—pay just keeps rising. So even assuming that workers remain just as effective as they get older (see below), at some point they end up being too expensive for what they offer.

But employers are also doubtful that older workers can still hack it. Vegard Skirbekk of the International Institute for Applied Systems Analysis near Vienna has reviewed a large number of studies about the relationship between age and individual productivity and found a fairly broad consensus that productivity in many jobs declines substantially in mid-working life.

Now that so-called "3D jobs"—the dirty, dangerous and demanding sort in, say, mining or steelmaking—have become thinner on the ground, it may not matter so much if workers become physically less vigorous; besides, older people are in better general health these days. But there is plenty of evidence that by the time people are 50, some of their cognitive abilities have also started to decline. In particular, a quality called "fluid intelligence"—including numerical skills and the ability to adjust rapidly to new situations—begins to go downhill in middle age. Very brainy people generally do their most innovative work before they are 40. Nobel prizes are usually awarded for achievements fairly early in life. By contrast, "crystallised intelligence"—general knowledge, experience, verbal ability—continues at much the same level almost indefinitely.

Employers think that older people may find it harder to pick up new skills, particularly in IT, which have become indispensable for many jobs. But that may be partly because they are invariably offered less training than younger ones. The argument is that they will be leaving soon and are not worth investing in. But younger employees might leave too.

All these reservations are linked to older workers' individual capabilities. But Axel Boersch-Supan at the Mannheim Research Institute for the Economics of Ageing and his team have argued that what matters in a modern economy is the productivity of teams of workers, not individuals. The best solution may be to employ a mixture of vigorous young and experienced older workers.

Older workers' knowledge and experience can easily be lost to the company when they retire. In a recent article in the *Harvard Business Review* based on his work with RWE, a German energy company, Rainer Strack of the Boston Consulting Group advises managers to conduct an audit of how the ageing of their workforce will affect them in years to come and develop a strategy to make sure they maintain the right skills mix.

Show me the colour of your carrot

But even if employers were happy to keep or recruit older workers, how enthusiastic would those workers be to carry on? That would depend on the circumstances. In the past few decades, when pensions in most rich countries were reasonably generous and early retirement was positively encouraged, only the most workaholic (or improvident) continued working. But now

It all depends what you mean by work

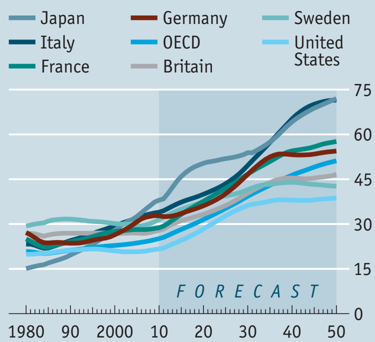
that money is getting tighter and early-retirement deals are off, the balance may well have shifted.

Most of America's baby-boomers now say that retirement is not for them, partly because they fear they may not be able to afford it and partly because they actually like work. In Europe too there has been a change of heart from the retirement-minded 1980s and 1990s. In a recent FT/Harris poll 45-60% of respondents in the big European countries favoured working longer for a bigger pension (except in Germany, where only about a quarter wanted to carry on). But many older people would like a less onerous workload than they had at their peak, perhaps working part-time.

Japan, where it is customary to work well beyond the official retirement age, has found ways to allow people to step into less demanding roles. For example, at the head office in Tokyo of Hitachi, a giant global electronics company, over two-thirds of those who reach the company retirement age of 60 apply to be rehired. The company can usually find jobs for them, explains Takane Miwa from the company's human-resources department, but often in a different division, sometimes part-time and always minus their former job title and seniority. The company pays the employee about 80% of his previous salary, which includes his public pension and a government subsidy, so it gets him at a bargain price.

Unbearable 7

Dependency ratio, population aged 65 and over as % of population aged 20-64



Source: "Society at a Glance", OECD, 2009

Most other rich countries have not been good at making use of older people willing and able to work. The names of a few companies that have consistently recruited staff past retirement age—mostly retailers such as Britain's B&Q and America's Wal-Mart—pop up time and again, but the list never seems to get much longer. In the absence of a good choice of jobs, some newly retired people manufacture their own, turning themselves into self-employed consultants to do much the same thing as before, though perhaps at a less punishing pace.

It is worth bearing in mind that if many more older people were to stay on in the formal economy, some of the things they now do outside it and without monetary reward would fall by the wayside. Many newly retired folk sign up for voluntary work, and many more get drafted into family duties, looking after grandchildren or frail old parents. Such unpaid work does not show up in the GDP figures. If the people who do it held down regular jobs, much of those things would have to be paid for—or would not get done at all. ■

China's predicament

Getting old before getting rich

THE Beijing Ren Ai Geracomium is set in a drab, dusty village just outside the Chinese capital. Grouped round a pleasant garden, this old people's home for about 80 residents, aged from 50 to 96, is unusual in several respects. Its private owner is a Christian, and the home has a small chapel where the handful of Christian residents, along with other people of that faith living in the area, gather for Sunday services. The home is run as a commercial enterprise, but Hu Wenru, its deputy director, says that since it opened three years ago it has been only gradually building up business and is not yet making a profit. Still, the owner is already preparing to launch a second one with 300 beds in the next village, so he must be confident of success.

The main thing that makes Ren Ai unusual is that it exists at all. Old people's homes are a rarity in China, catering for only about 1% of the over-65s, far less than in most Western countries. The vast majority of older Chinese live with their families. Care for the old within the family is not only a cultural expectation, based on the Confucian tradition of respect for age and experience; under a law passed in 1996 it is also a legal obligation. Elderly people have been known to sue their families for maintenance if they fail to comply.

At present, institutional care is the last resort for those who have no family or who need so much help that their relatives cannot cope. Many of the residents at Ren Ai, for example, have serious physical or mental problems, and the home has two full-time doctors on the staff. The place is clean and seems well-run, but it is spartan: some of the rooms sleep six people, with one basic bathroom between them. Even so, the fees are much higher than most ordinary people can afford, averaging 1,300 yuan ($190) a month for the reasonably fit but with extra charges for those who want a single room or need lots of nursing. Some of the residents are subsidised by the government, which seems happy to let private initiative flourish.

There will be a lot more need for institutional care for elderly people in future, says Du Peng, director of the Institute of Gerontology at Beijing's Renmin University. For the past three decades China has been operating a strict population-control policy, so there are now far fewer young people around to take care of the elderly. This state of affairs is usually referred to by the nifty formula "4-2-1", meaning that the typical only child today will have two parents and four grandparents to look after—a bit of an exaggeration, but not that far off.

It has also become harder for families to live together because people move around a lot more than they used to. An estimated 150m migrant workers have left their rural homes for jobs in the big cities, though many of them might return home eventually. Most importantly, because of the low birth rate and rising life expectancy, the number of over-60s is expected to go up very rapidly, from about 166m now to 342m in only 20 years' time. All this means, says Mr Du, that many more older folk will be living in institutions.

China is still a relatively young country, with a median age of around 30. But, uniquely among developing countries, it is ageing extraordinarily fast, so by 2050 its median age will have risen to about 45. Over the next few decades the ratio of elderly dependants to people of working age will rise steeply, from 10% now to 40% by 2050. From about 2030 the country will have more elderly dependants than children (see chart 8), whereas in most other developing countries the opposite will remain true for the next few decades. China's pattern of ageing is very similar to that in Japan, Hong Kong, Singapore, South Korea and Taiwan. The difference is that in China this is happening at a time when the country is still relatively poor.

The man who lays claim to having invented the phrase "getting old before getting rich", in the early 1980s, is Wu Cangping, an academic at the Population and Development Research Centre at Renmin University. At that time population ageing was receiving little attention, and he wanted to shock the government into preparing for it. Since then China has become a lot richer (with an income per person of about $6,000 at PPP)—though not nearly as rich as most developed countries when they were starting to age. Some Chinese demographers are now arguing that the phrase should be amended to "getting old while getting rich".

Plenty of life after work

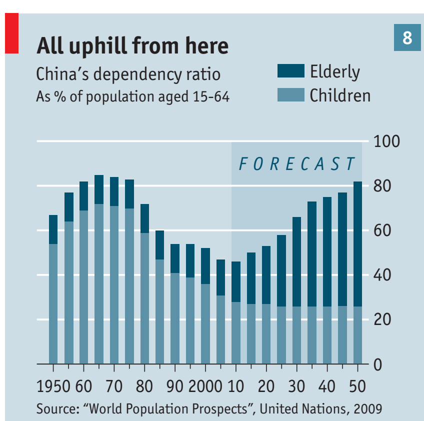
In search of a new rice bowl

Whether poor, rich or somewhere in-between, China will certainly need to spend some money to provide a basic social safety net for its people, not just the old but everyone. Until about 20 years ago the vast majority of urban workers were covered by a system known as the "iron rice bowl". People who worked for the state, in state-owned companies or in state-approved collectives, enjoyed cradle-to-grave benefits ranging from housing, education and health care to a generous pension scheme, with an official retirement age of 55 for men and 50 for women for manual workers (but five years more for white-collar workers) and a replacement rate of about 80% of final salary. Most people retired about five years before the official age.

It was too good to last, and it didn't. In the early 1990s huge number of state-owned enterprises were shut down and jobs in those that survived were savagely cut. Many state firms passed into private hands and new private companies grew up alongside them. Whereas civil servants and employees in state-owned firms used to make up nearly 80% of all urban workers, their share is now down to 20%. The government is committed to honouring the pension promises left over from the old system, but the iron rice bowl has gone. That has left a huge gap in urban workers' social-security provision. Workers in rural areas, who still make up about half the total labour force, never had much coverage of any kind anyway.

Since then the government has launched a series of initiatives to put a new welfare system in place. The main concerns are health care and pensions. Since the demise of the old system, health-insurance coverage has been patchy and in rural areas mostly non-existent. Health insurance is generally not portable, so if people move from one part of the country to another they may lose their coverage. But even if covered, people have to make large co-payments, which for the elderly and those with serious health problems can be crippling. A survey carried out in 2000 by the China Research Centre on Ageing, a think-tank, found that more than half the over-60s' medical expenses came out of their own pockets and a big chunk of the rest was paid for by their families.

In April the government set out its plan for a comprehensive reform to build a "safe, effective, convenient and affordable" health-care system by 2020. Over the next three years it intends to spend 850 billion yuan. By 2011 more than 90% of the population is meant to be covered by the system. In rural areas that figure has already been reached, but the scheme usually covers only in-patient treatment and the reimbursement rate remains very low.



The pensions system too is in flux. In the early 1990s the government announced a three-pillar scheme along the lines of those in many developed countries: a basic pay-as-you go pension to which both employers and employees make mandatory contributions; funded individual accounts, also with contributions from employers and workers; and individuals' private savings. This is a work in progress. Reforms are being announced "almost annually", says Wang Yanzhong, who heads the Centre of Labour and Social Security Studies at the Chinese Academy of Social Sciences (CASS).

So far only about a third of the population is covered by any kind of pension scheme. The funded individual accounts envisaged under the government's plans have been set up, but so far there is little money in them. Because of restrictions on investment abroad and a dearth of high-yielding instruments at home, such money as has accumulated has been invested mainly in the domestic banking system, where it earns a rate of return far too low to meet the government's pension promises.

Jonathan Anderson, a China specialist at UBS, calculates that under the current pension system the government could face unfunded liabilities of up to 6% of GDP annually a few decades hence. But it could head them off by a variety of means: raising contributions or increasing coverage to bring more money into the system; increasing the retirement age; securing better returns on the accumulated funds; or reducing future pay-outs.

By far the most effective way, though, would be to raise the retirement age. In early spring the government hinted that it was considering such a move, but Chen Chuanshu, vice-director of the government's high-powered National Committee on Ageing, says there are "diverse views" on the matter. In principle it seems a good idea. Average life expectancy at birth, at 74, is now 25 years higher than it was 50 years ago, yet the retirement age has remained at the same low level. Unless it goes up, any comprehensive pension system that China might eventually introduce will be hideously expensive.

In practice, though, both workers and employers are strongly opposed to a change. Workers have got used to the idea of retiring in their 50s and planned their lives accordingly. Employers have had the luxury of being able to pick from a seemingly inexhaustible supply of vigorous people in their 20s and 30s. Workers in their 40s are already considered old, and many of those in their 50s may indeed lack the skills needed in a modern economy.

But given the low birth rate over the past 30 years, the supply of young workers is not, in fact, endless. Cai Fang, director of the Institute of Population and Labour Economics at CASS, points out that there is already a shortage of young migrant workers; it started in the coastal areas in 2004 and has now spread everywhere. The worldwide economic downturn has temporarily eased the pressure, but employers in China's coastal boom belt continue to complain of shortages (although 20m people are said to have lost their jobs since the downturn hit late last year).

So there is now an economic, as well as a human-rights, case for relaxing the country's "one-child policy". Many Chinese academics think it can be only a matter of a few years, but the government seems in no hurry. "Family planning", as it likes to call the policy, is seen as a success, easing pressures on the environment and resources of all kinds. There is no explicit population target, but the latest forecasts suggest that numbers will keep growing from about 1.3 billion now to a peak of around 1.46 billion by 2030 and then start declining gently.

In fact, even if the restrictions were loosened immediately the birth rate might not tick up by very much. In the big cities many people are already leading the sort of lives that have brought down fertility in richer countries.

China's government is well aware of the problems of an ageing population, and "is doing all the right things but not always fast enough", says Vanessa Wang, an Asia specialist and actuary with Mercer, a consultancy. So far the government's main priority has been to keep up the prodigious economic growth rates of recent years, but the prime minister, Wen Jiabao, has said that the government is attaching growing importance to social welfare.

Of the 4 trillion yuan economic-stimulus package announced last November, 300 billion has now been reallocated from infrastructure projects to welfare schemes. Critics say China could afford to do much better. Its public finances are in good shape, with its public debt at less than 20% of GDP and its fiscal balance improving rapidly. Saving, at over 40% of GDP, is high by international standards. Given the prospect of 440m pensioners by 2050, perhaps it should invest more in creating its much-advertised "harmonious society". ■

Into the unknown

The world has never seen population ageing before. Can it cope?

UNTIL the early 1990s nobody much thought about whole populations getting older. The UN had the foresight to convene a "world assembly on ageing" back in 1982, but that came and went. By 1994 the World Bank had noticed that something big was happening. In a report entitled "Averting the Old Age Crisis", it argued that pension arrangements in most countries were unsustainable.

For the next ten years a succession of books, mainly by Americans, sounded the alarm. They had titles like "Young v Old", "Gray Dawn" and "The Coming Generational Storm", and their message was stark: health-care systems were heading for the rocks, pensioners were taking young people to the cleaners, and soon there would be intergenerational warfare.

Since then the debate has become less emotional, not least because a lot more is known about the subject. Books, conferences and research papers have proliferated. International organisations such as the OECD and the EU issue regular reports. Population ageing is on every agenda, from G8 economic conferences to NATO summits. The World Economic Forum plans to consider the future of pensions and health care at its prestigious Davos conference early next year. The media, including this newspaper, are giving the subject extensive coverage.

Whether all that attention has translated into sufficient action is another question. Governments in rich countries now accept that their pension and health-care promises will soon become unaffordable, and many of them have embarked on reforms, but so far only timidly. That is not surprising: politicians with an eye on the next election will hardly rush to introduce unpopular measures that may not bear fruit for years, perhaps decades.

The outline of the changes needed is clear. To avoid fiscal meltdown, public pensions and health-care provision will have to be reined back severely and taxes may have to go up. By far the most effective method to restrain pension spending is to give people the opportunity to work longer, because it increases tax revenues and reduces spending on pensions at the same time. It may even keep them alive longer. John Rother, the AARP's head of policy and strategy, points to studies showing that other things being equal, people who remain at work have lower death rates than their retired peers.

Younger people today mostly accept that they will have to work for longer and that their pensions will be less generous. Employers still need to be persuaded that older workers are worth holding on to. That may be because they have had plenty of younger ones to choose from, partly thanks to the post-war baby-boom and partly because over the past few decades many more women have entered the labour force, increasing employers' choice. But the reservoir of women able and willing to take up paid work is running low

When the music stops much later

and the baby-boomers are going grey.

In many countries immigrants have been filling such gaps in the labour force as have already emerged (and remember that the real crunch is still around ten years off). Immigration in the developed world is the highest it has ever been, and it is making a useful difference. In still-fertile America it currently accounts for about 40% of total population growth, and in fast-ageing western Europe for about 90%.

On the face of it, it seems the perfect solution. Many developing countries have lots of young people in need of jobs; many rich countries need helping hands that will boost tax revenues and keep up economic growth. But over the next few decades labour forces in rich countries are set to shrink so much that inflows of immigrants would have to increase enormously to compensate: to at least twice their current size in western Europe's most youthful countries, and three times in the older ones. Japan would need a large multiple of the few immigrants it has at present. Public opinion polls show that people in most rich countries already think that immigration is too high. Further big increases would be politically unfeasible.

To tackle the problem of ageing populations at its root, "old" countries would have to rejuvenate themselves by having more of their own children. A number of them have tried, some more successfully than others. But it is not a simple matter of offering financial incentives or providing more child care. Modern urban life in rich countries is not well adapted to large families. Women find it hard to combine family and career. They often compromise by having just one child.

And if fertility in ageing countries does not pick up? It will not be the end of the world, at least not for quite a while yet, but the world will slowly become a different place. Older societies may be less innovative and more risk-averse than younger ones. By 2025 at the latest, about half the voters in America and most of those in western European countries will be over 50—and older people turn out to vote in much greater number than younger ones. Academic studies have found no evidence so far that older voters have used their clout at the ballot box to push for policies that specifically benefit them, though if in future there are many more of them they might start doing so.

Nor is there any sign of the intergenerational warfare predicted in the 1990s. After all, older people themselves mostly have families. In a recent study of parents and grown-up children in 11 European countries, Karsten Hank of Mannheim University found that 85% of them lived within 25km of each other and the majority of them were in touch at least once a week.

Even so, the shift in the centre of gravity to older age groups is bound to have a profound effect on societies, not just economically and politically but in all sorts of other ways too. Richard Jackson and Neil Howe of America's CSIS, in a thoughtful book called "The Graying of the Great Powers", argue that, among other things, the ageing of the developed countries will have a number of serious security implications.

For example, the shortage of young adults is likely to make countries more reluctant to commit the few they have to military service. In the decades to 2050, America will find itself playing an ever-increasing role in the developed world's defence effort. Because America's population will still be growing when that of most other developed countries is shrinking, America will be the only developed country that still matters geopolitically.

Ask me in 2020

There is little that can be done to stop population ageing, so the world will have to live with it. But some of the consequences can be ameliorated. Many experts now believe that given the right policies, the effects, though momentous, need not be catastrophic. Most countries have recognised the need to do something and are beginning to act.

But even then there is no guarantee that their efforts will work. What is happening now is historically unprecedented. Ronald Lee, director of the Centre on the Economics and Demography of Ageing at the University of California, Berkeley, puts it succinctly: "We don't really know what population ageing will be like, because nobody has done it yet." ■

Future special reports
Countries and regions
Texas July 11th
The Arab world July 25th
Indonesia September 12th
China and America October 24th

Business, finance, economics and ideas June 27th
Telecoms September 26th
The world economy October 3rd

Previous special reports and a list of forthcoming ones can be found online

Economist.com/specialreports