



Pensions

Fade to grey

It costs a lot more to fund a modern retirement. Employers, workers and governments are not prepared

EMPEROR AUGUSTUS came to power with the help of a private army. So he was understandably keen to ensure the loyalty of his soldiers to the Roman state. His bright idea was to offer a pension for those in the army who had served for 16 years (later 20), equivalent in cash or land to 12 times their annual salary. As Mary Beard, a classical historian, explains in her history of Rome, "SPQR", the promise was enormously expensive. All told, military wages and pensions absorbed half of all Rome's tax revenues.

The emperor would not be the last to underestimate the burden of providing retirement benefits. Around the world a funding crisis for pension schemes is coming to the boil. Rahm Emanuel, Chicago's mayor, is struggling to rescue the city's pension plans; the municipal scheme is scheduled to run out of money within ten years. In Britain the pension problems of BHS scuppered attempts to save the high-street retailer; the same issue is complicating a rescue of Tata Steel's British operations.

The roots of the predicament lie in defined-benefit (DB) pensions, which guarantee a pension linked to workers' salaries. These may provide security for the retired but have been expensive for employers. In many cases, DB pensions were offered decades ago when they seemed like a cheap alternative to awarding pay rises. Private-sector employers now usually offer new workers defined contribution (DC) schemes, which hand them a pot of money on retirement with no promise of the in-

come it will generate. In time, this will create its own huge problems as workers face an impecunious retirement.

The DB problem is most obvious in Britain and America where many employers operate funded systems, in which contributions are put aside and invested to pay pensions. Many European countries operate on a pay-as-you-go basis, in which retirement incomes are paid out of current profits or taxes. That does not mean the problems have disappeared; they are just harder to quantify. Citigroup reckons that, in 20 OECD countries, the unfunded government liability is around \$78 trillion.

There are two reasons that funding pensions is becoming ever more troublesome. First, people are living longer. In 1960 the average American, British or Japanese 65-year-old man could expect to live for another 11-13 years. Women could look forward to 14-16 more birthdays. Now it is 18-19 years for men and 20-24 years for women.

Funding decent pensions is all the more difficult given that the proportion of retired workers is also growing. Around 600m people aged over 65 now make up around 8% of the world's population; by 2050 there will be 1.6 billion, more than 15% of the total. Some countries face a bigger problem than others. In Japan, a third of the population will probably be over 65 by 2050; in Europe, the proportion will be more than a quarter.

Second, the low level of interest rates and bond yields means the cost of paying pensions has gone up, even without the

longevity factor. Investors who have to buy their own pensions know this only too well. In the late 1990s, £100,000 (\$164,000) would have bought a 65-year-old British man a lifelong income of £11,170 a year; now it will earn £4,960, according to Moneyfacts, a data firm. In other words, paying out a given level of income now costs more than twice as much as it did.

Government-bond yields in rich countries are at historically low levels; in some countries, they are even negative. This has a direct impact on pension deficits, by increasing the value of future pension liabilities. Because the cash cost of a pension will not fall due for decades, pension schemes must discount this cost at some rate to calculate how much they need to put aside now. If the cost next year will be \$100, and the discount rate is 5%, then the cost in today's terms is \$95. The higher the discount rate, the lower the present cost.

For a long time, most company pension schemes used the assumed rate of return on their assets as the discount rate. The rationale was simple; a combination of contributions and investment returns will eventually pay the benefits. But this approach was prone to wishful thinking; if markets have performed well in the past, the temptation is to assume they will continue to do so. The higher the assumed future return, the less cash the company has to put aside today.

Actuaries and financial economists started to think more deeply about how to account for pension costs in the 1990s. Using investment returns is theoretically dubious. A company is required to pay pensions whether or not high investment returns are achieved. A pension promise is like a bond; a promise to pay a series of cashflows in future. That suggests the yield on long-term debt is the appropriate discount rate. In the early 2000s accounting regulations began to require companies to use a corporate-bond yield as the discount rate. Since the bond yield was much lower than the assumed investment return, the effect was to increase the stated level of pension liabilities.

You're a liability

Bond yields have fallen steadily and so liabilities have risen significantly. In Britain the fall in yields following the unexpected Brexit vote (and a renewal of quantitative easing by the Bank of England) has made matters considerably worse. PwC estimates that the total deficit of all British DB pension funds rose by £100 billion in August alone. The Bank of England, which matches its pension liability by buying inflation-linked government bonds (as theory suggests), was forced to pay 55% of its payroll on pensions last year.

Finance directors must feel like Sisyphus, doomed to push a rock uphill for eternity. In America, the estimated deficit ►

► of large firms at the end of last year was \$570 billion, according to Mercer, a consultancy. The average funding level was 77%. In Britain publicly quoted companies in the FTSE 350 paid £75 billion into their schemes between 2010 and 2015, according to Mercer, but their collective deficit still grew by £34 billion over the same period.

Stirring the pension pot

The struggles of the private sector create a public-policy problem. A 20-year-old worker may still be receiving a pension 70 years hence. Few companies can be relied on to last that long. If a company goes bust while its pension scheme is underfunded, the result could be an unhappy retirement. To safeguard pensions the American and British governments set up insurance schemes that stand behind corporate plans; the Pension Benefit Guaranty Corporation (PBGC) in the former and the Pension Protection Fund (PPF) in the latter. Both fund themselves through levies on the corporate-sector plans they insure; both cap the amount of pension protection that individual workers receive.

Creating the PBGC and PPF has recast the problem of more expensive pensions in a different form. Regulators try to protect schemes by ensuring they are well-funded and that companies do not take advantage of the potential "moral hazard"—underfunding their plans because of the insurance protection. But make funding of the schemes too strict and firms will complain; some may even be forced to the wall.

So the temptation is to allow a lot of flexibility and hope that funding levels recover. BHS went into administration (the British equivalent of Chapter 11 bankruptcy protection) with a pension deficit of £571m. The company has been struggling for years; it had a recovery plan for its pension scheme that was scheduled to take 23 years. Should the regulator have allowed the company such latitude? The regulator is negotiating with the business's previous owner, Sir Philip Green, about his making payments that will reduce the deficit. The saga has triggered a fierce debate about the moral and legal responsibility of business owners to ensure pension schemes are fully funded.

In America the PBGC depends on Congress to ensure it is properly resourced. As well as covering the pension plans sponsored by large firms, the PBGC backs schemes in industries with lots of small employers, such as mining and trucking. At the moment the PBGC estimates that it faces a potential liability of \$52 billion on these multi-employer schemes over the next decade. The Central States pension fund, responsible for the benefits of 400,000 truck drivers and warehouse workers, recently said it would run out of money by 2025. But Congress has set a levy of just \$27 for this type of employee per

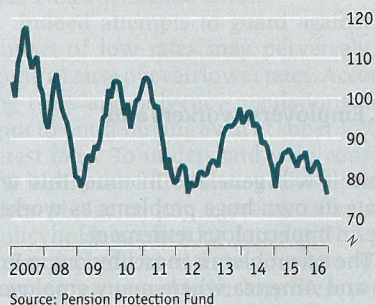
year; an annual sum of only \$270m, ludicrously short of the amount needed.

The PPF is better funded than the PBGC. It has reserves of more than £3.6 billion before the impact of intervening at BHS's fund (and possibly Tata Steel's). Nevertheless, the fund has assets of £23 billion and the companies it covers have an aggregate funding deficit of £459 billion. Moreover, both insurance schemes face the long-term problem that they were established to back DB schemes, often set up many decades ago by manufacturing firms. As those types of companies die off, new services and technology firms are not joining the fund, because they do not offer DB pensions. The levy's burden is falling on a dwindling number of companies.

Governments, which often offer their workers DB pensions, have been far slower than the corporate sector in attempting to

Falling short

British companies' pension schemes
Assets as % of liabilities



reduce the cost. In large part this is because of the way they account for pensions. In America they are allowed to assume a return of 7.5-8% on their investments, making deficits look a lot smaller. But generous accounting assumptions do not make the problem go away. The Centre for Retirement Research (CRR) at Boston College has looked at around 4,000 American state and local-government pension plans. Even using the accounting standards permitted, the plans were on average 72% funded at the end of 2015. On a more conservative 4% discount rate, this drops to 45%. On the former basis, the collective deficit is \$1.2 trillion; on the latter \$4.1 trillion.

Difficulties are starting to emerge in America. Detroit's bankruptcy in 2013 was in part the result of a huge shortfall in its pension fund; some retired workers suffered cuts to their income and health-care benefits. But the city still has a long-term pension problem, with a \$195m payment to the plan due in 2024. Cities in better health than Detroit are also grappling with the pensions burden. In Texas, Fort Worth's credit rating was reduced by Moody's, a rating agency, in May in response to a \$1.5 billion pension-fund shortfall.

The hole keeps getting bigger. Required

public-sector employer contributions have nearly trebled as a proportion of payroll since 2001. But in practice, they have not been paid: since 2006, contributions have been regularly less than 90% of what is due. Closing the deficit will require higher taxes, or benefit cuts. But states and local governments are constrained by laws which say that benefits, once promised, cannot be reduced. Unless markets deliver implausibly high returns, more and more cities and states will be forced to juggle the interests of workers and taxpayers, with angry voices on both sides.

What is the answer? The Dutch have a robust pension system which is still linked to salaries. The regulations demand that schemes are fully funded at all times; if funding falls below 105% of liabilities, then there is scope to reduce benefits.

Some American states and cities have likewise been able to reduce their pension costs by limiting the amount of inflation indexation that applies (of course, that will only work if there is some inflation). In Arizona, voters approved in May a proposition that limited inflation increases for policemen and firefighters to 2% a year. But aping the Dutch model in America and Britain would require huge amounts of money to eliminate current pension deficits—money that employers may not have available.

The private-sector funding problem will, at least, diminish in the long run as old DB schemes run down. But there will be no respite for governments. They have been slow to switch workers to DC schemes, because the power of public-sector trade unions to resist lower benefits is greater than in much of the private sector. A two-tier system may emerge, with retired private-sector workers finding themselves worse off than their public-sector counterparts, but still funding those luckier workers through their taxes.

Retired hurt

This is a slow-motion crisis in which the casualties—the weakest companies and cities—appear intermittently rather than all at once. Although the commitment to pay retired public-sector workers is in effect a debt, it does not show up in the official figures. Nine countries—Austria, Britain, Denmark, France, Germany, Italy, Poland, Portugal and Spain—have public-sector pension liabilities of more than 300% of GDP, according to Citigroup.

The essence of the problem is clear. Low rates mean that employers and workers need to put more money aside for retirement. Many are either not contributing enough or ignoring a problem that seems a distant threat. They would do well to remember that in Augustus's time the Roman Empire looked invincible. But the troubles that overwhelmed it were already taking firm root. ■