SOCIETY OF ACTUARIES

Article from:

The Actuary Magazine

October/November 2012 – Volume 9 Issue 5

LOOKING

FOR NEW IDEAS IN R

THERE ARE MANY DIFFERENT RETIREMENT SYSTEMS THROUGHOUT THE WORLD. THIS ARTICLE MAKES THE CASE THAT LOOKING AT HOW OTHER COUNTRIES HANDLE RETIREMENT PROGRAMS COULD HELP OUR OWN. BY ELIZABETH BAUER

OVERSEAS

ETIREMENT SYSTEMS

We all know the story: the American retirement system is facing a crisis. The latest Social Security Trustees' Report tells us that the trust fund will be depleted in 2033, and total Social Security outlays are projected to peak at 17.4 percent of taxable payroll in 2035, up from 11.3 percent now. While the optimists tell us we have plenty of time to make some minor tweaks to the system, in the meantime, the redemption of the Trust Fund bonds (if one even accepts that they are real, meaningful

assets) will only place a further strain on an economy weighed down by debt.

But that's not the half of it: the traditional employer-sponsored defined-benefit (DB) pension system, once near-universal among larger employers, is dying a slow death. As recently as 1995, based on my employer's internal survey data, a good 80 percent of larger employers provided open and ongoing DB plans to their employees; now that figure is only about 25 percent and falling fast. Since that shift is so recent, and grandfathered employees' benefits are protected (accrued benefits, by law, and continued accruals, often by practice), we are headed into uncharted territory, with multiple experts asserting that employees aren't saving enough, and other experts asserting the first group is too pessimistic, but with no lived experience to tell us what's going to happen to the living standards of the first DB-pension-less generation of seniors.

Despite all the hand-wringing, moves toward a solution have been baby steps. The last change to Social Security was in 1983, with increases to contribution rates and retirement ages. On the employer side, the Pension Protection Act of 2006 aimed to shore up pension funding of existing plans but did nothing to slow the abandonment of the DB pension plan, and may have exacerbated it; and it aimed to increase voluntary pension savings via expanded opportunity for employers to implement auto-enrollment. In the meantime, there's a certain amount of resignation that the only changes possible are small and incremental, and the only tools available are education and encouragement, and at best the removal of some minor regulatory hurdles.

But we're not alone. Other countries have faced the same issues, and have made dramatic changes. Still other countries have had entirely different systems from the start. Let's take a look abroad for some new ideas and perspectives to freshen up the debate.

Changes to Social Security and Mandatory Employer Pensions

AUSTRALIA: Mandatory Superannuation employer contributions (phase-in from 1992 to 2000); additional changes currently underway; increase in contribution rate under discussion.

BRAZIL: Adjustment factor including improvements in life expectancy incorporated into formula (1999).

GERMANY: Increase normal retirement age to 67 (effective 2012, phase-in to 2031), slow growth in the Pension Value with demographic adjustment factor (2005).

HONG KONG: Institute Mandatory Provident Fund (2000).

ITALY: Move from pay x service to cash-balance-like notional accounts (1995), partial move from mandatory termination indemnities to mandatory DC contributions (2007), implementation of notional accounts for all workers going forward (i.e., eliminating pay x service x accrual rate benefits for future service for grandfathered group), plus increases in the retirement age and life-expectancy-based adjustments to annuity conversion factors (2012).

NETHERLANDS: Increase retirement age from 65 to 67 (effective 2012, phase-in to 2025); increase benefits relative to minimum wage by 0.6 percent per year for 16 years (2012).

NORWAY: Move from pay x service to cash-balance-like notional accounts (2010); mandatory 2 percent DC plans (2006).

SOUTH KOREA: Shift from mandatory termination indemnity benefits to mandatory retirement plans (phase-in from 2005 to 2008).

UNITED KINGDOM: Changes to benefit formula to phase-in a flat benefit (ongoing to 2030, with implementation potentially moved up to 2020); mandatory auto-enrollment in DC plans (phase-in from 2012 to 2016)—minimum employer contribution 3 percent, employee 4 percent, plus 1 percent tax rebate; opt-out permitted.

SOCIAL SECURITY: FLAT BENEFIT SYSTEMS?

The Netherlands, Denmark, Ireland and New Zealand are among the countries that use a very simple, flat benefit system. In the case of Denmark, Ireland and New Zealand, the benefits are funded by general tax revenues, so the system is quite progressive. In the Netherlands, the benefits are funded by a payroll tax with a comparatively low ceiling (contributions of 17.9 percent on income up

to EUR 33,436 per year), a more regressive system. The Dutch benefits themselves are defined with reference to the minimum wage: for singles, the net after-tax Social Security benefit is set at 70 percent of the net minimum wage; and for married/cohabitating couples (defined very broadly to include two people sharing a household, in most circumstances), the net benefit is 50 percent of the net minimum wage, per person. For 2012, the actual annual benefit amounts are EUR 13,690 for singles/ EUR 19,095 for couples. (These benefits will change based on recent reforms, increasing both the retirement age, and the size of the benefit relative to minimum wage, but the general structure will remain the same.)

Australia and Hong Kong take this system a step further, and claw back retirement benefits based on income and asset tests. In Australia, the current rates are about $18,000 for singles and $27,000 for couples (conveniently, the Australian and American dollar are nearly equivalent). These benefits are locally perceived of as a very basic standard of living, but are markedly more generous than local unemployment benefits, which at $13,000/$23,000 are slightly below the Australian poverty line measure. These benefits phase out fairly rapidly, reducing by 50 cents for each $1.00 of income above a minimal threshold.

In Hong Kong, the basic benefit amount is much smaller—HKD 1,099 per month, or approximately USD 133—but is accompanied, for those with no other financial resources, by additional supplements. This benefit is means-tested for individuals under age 70; for all recipients it is viewed as a very minimal "safety-net" benefit, with the large part of retirement income coming through mandatory retirement savings (more on this later).

These systems are not new, but that doesn't mean it's not a possible model. In fact, the United Kingdom is moving toward a flat-benefit system, being phased in by 2030 (or potentially earlier, by 2020). Such a system offers simplicity, a true guarantee of protection against poverty, and, potentially, the flexibility of limiting benefit increases from year to year to respond to the current state of the economy.

MODIFIED ACCRUAL-RATE FORMULAS?

Most benefits, of course, are pay-related and accrue based on defined formulas, and most of these formulas are very straightforward: capped average pay multiplied by years of service multiplied by an accrual rate. Some countries provide a minimum benefit as protection against poverty, or provide a combination of a flat rate benefit and a pay-related portion (for example, Canadian and existing U.K. benefits). Other systems are designed, as with the American system, to provide a relatively higher benefit level at lower incomes: in the Czech Republic, for instance, pensionable pay above certain thresholds is only partially reflected in the calculation.

Some of these systems contain components that take into account changing demographics. For example, Germany uses a "points" system: one accumulates points each year based on one's own income compared to the national average income (e.g., one point for income at exactly the national average, 1.5 points for income 50 percent above average, etc., up to a maximum pensionable earnings/maximum points); at retirement, the monthly pension is determined by multiplying the total points by the "Pension Value" then in effect. By and large, the Pension Value increases in line with wage increases, in order to meet a pay-replacement target at average income levels, but the formula is complex and ever-changing. In 2005, a "sustainability factor" was introduced by which the Pension Value is adjusted (at least in part) by the change in the number of retirees relative to the size of the workforce. The stated policy of the German government is, by adjusting the Pension Value, to contain the cost of the system and limit the total employer and employee contribution rate to no more than 22 percent of pay.

… we're not alone. Other countries have faced the same issues, and have made dramatic changes.

Brazil likewise has a traditional DB system, and a generous one at that—up to 100 percent of inflation-indexed average pay after a full working lifetime. Beginning in 1999, however, an adjustment factor, the "Fator Previdenciario," is to be applied to the benefit, a calculation that takes into account both age at retirement and life expectancy at that age, based on the most current official table.

Is this an alternative approach? Certainly these sorts of sustainability adjustments are the easiest method of automatically adjusting benefit size to take into account changing demographics, since, in principle, once implemented, no further political decisions are required to continue the adjustments from year to year.

ACCOUNT-BASED SYSTEMS?

The biggest recent shift in social security/state pension benefits has been the adoption of the World Bank multipillar model, especially in former Eastern Bloc states. This system typically takes the form of employer and employee contributions to a combination of a pay-as-you-go system, in which benefits accrue based on notional accounts credited

with interest, and to separate individual funded accounts, with a guaranteed minimum benefit provided as a (small) percentage of the national average wage. I hesitate to spend too much time discussing these programs, since the unique circumstances of these countries at the time of the reform—the unsustainability of the old system's generous pensions and the need to increase the amount of investment capital—mean that it is difficult to assess the potential applicability of such a system in the United States.

But there are other countries outside the Warsaw Pact region that have adopted some form of individual accounts. Three countries—Norway, Sweden and Italy—have adopted cash-balance-like plans in recent years. Norway's pension reform is brand-new, dating to 2010, and consists of notional accounts built up with contributions of 18.1 percent of pay and interest credits based on increases in the national average wage. These accounts are converted to annuities based on predefined annuity factors that increase over time to reflect the increase in life expectancy. The annuity factors rise sharply—for example, for retirement at age 65, they increase from 16.65 for an individual born in 1954, to 20.26 for someone born in 1990, and are intentionally set to ensure the sustainability of the system. Sweden's system is older, dating to 1998, includes a pay-as-you-go portion of 16 percent and a funded portion of 2.5 percent, and incorporates demographic/sustainability adjustments in the annual interest credit determination. In Italy's system, older still (established in 1995), the contribution levels are significantly higher, at 33 percent, and the notional accounts grow based on the annual growth in GDP, again converted to annuities at specified annuity factors, which are revised triennially. Each of these countries grandfathered existing participants to a greater or lesser degree at the time of implementation.

In addition to the simplicity of the cash- balance-like concept, these systems have multiple sustainability elements, from the interest credits varying along with the health of the economy to the changes in annuity factors to reflect current demographics, to explicit "sustainability" adjustments. Is this the model we're looking for?

The list of countries that have reformed their system in recent years is long. …

EMPLOYER-PROVIDED BENEFITS

The list of countries that have reformed their system in recent years is long, with changes in accrual rates, income averaging methods, retirement ages, annuity conversions, contribution levels, and implementation of self-adjusting mechanisms, in order to cope with the future costs of the system, with an accompanying recognition that employers or individuals themselves will have to fill in the gap left by benefit decreases with additional benefit provision/personal savings. In some cases, these private systems are not yet well-developed. In other cases, there are already well-developed complementary systems via national or widely prevalent collective bargaining agreements, in which employers either contribute a fixed percentage of pay or are required to provide benefits at a defined level—but the reliance on collective bargaining limits their usefulness as potential models for the United States. Some countries, however, have implemented mandatory employer-provided retirement programs that offer a potential solution to the shortfalls of our present voluntary system.

MANDATORY RETIREMENT SAVINGS?

Two examples of mandatory retirement savings are Hong Kong's Mandatory Provident Fund (MPF) and Australia's Superannuation Guarantee.

Hong Kong's system, established in 2000, requires a 5 percent employer and 5 percent employee contribution to a Provident Fund; in practice, the majority of employers provide a higher benefit level, contributing, for example, 7 percent of pay rather than 5 percent. Historically, employees have chosen from among a range of funds offered by an MPF provider selected by their employer; new legislation (effective in 2012) allows participants to select their own MPF provider.

Australia's system, with employer-administered funds, more nearly resembles what our 401(k) system would look like if a mandate were added. Their system is relatively new—or rather, the mandate, instituted in 1992, made universal a benefit previously available to about half the workforce through collective bargaining and voluntary employer plans. The contribution level began at 3 percent (4 percent for large employers) in 1992, with a gradual phase-in to the existing 9 percent contribution level in 2000; an increase to 12 percent by 2017 is currently being legislated.

This system is not without problems, however. One of the current concerns is the high level of expenses, especially commission, for smaller plans, and the ability of participants with low financial literacy to manage their Super accounts effectively. A "default" product ("MySuper") as well as a review of the financial advice industry are currently being implemented in response to these concerns.

In any case, as in the United States, there is no established system to ensure that retirement

income lasts throughout retirement. As with a U.S. 401(k) account, annuity purchases are quite rare. At present, due to the newness of the Superannuation system, a great many participants use their Super balances to pay down debt or make major purchases at retirement, and rely on the Age Pension for their basic needs. Others manage their retirement savings in ways similar to the United States, with financial advisors or general "rules of thumb" to guide them. In addition, the reliance on individual investment returns does not protect against investment risk, either before or after retirement, and there is no protection against longevity risk.

ACCOUNTS WITH GUARANTEES?

In these respects, Switzerland may be a better model for a universal employer-based pension system. Their system, established in 1985 and called the Federal Law on Occupational Retirement, Survivors' and Disability Pension Plans (BVG/LPP), consists of mandatory occupational pension benefits, as well as death and disability insurance. The minimum benefit levels take the form of a cash balance plan, with annual retirement contributions based on a schedule by age, from 7 percent to 18 percent, out of which employers by law may pass as much as 1/2 the cost to their employees. The minimum interest credit is fixed by law, currently 1.5 percent, and annuity conversion rates are also specified. Pensionable pay, or "coordinated salary," is defined with recognition of the fact that the Swiss social security system has a significant minimum benefit level. Benefits begin on pay above a threshold called the "Coordination Deduction"—currently CHF 24,360—which is tied to social security benefit levels, and are not required on pay above the social security ceiling, CHF 83,520. (Again, conveniently, the U.S. dollar and Swiss Franc are about equivalent.) These benefits are minimums only; employers are able to, and quite commonly do provide benefits significantly above these minimum levels. The benefits must be funded by law, and small employers typically fund them via insurance providers. At retirement, lump sum benefits are permitted, but most participants elect annuity benefits. The benefits are fully portable, and, upon termination, employees transfer their accrued benefits to their new employer.

It's a stretch to imagine the Swiss system adopted in the United States, but it would solve retirement security problems while keeping the system firmly rooted in the private sector. The Swiss system's guaranteed interest credits and insurer-based annuitization protect against investment and longevity risk for individual employees, although a typical American would recoil against the high cost implicit in the low interest credits/investment returns. It's also hard to say whether the notion of the "coordinated salary" would be viewed as "fair" (no employee contributions) or "unfair" (no employer contributions, either) to lower-wage workers, and whether an age-based schedule would be considered entirely appropriate or discriminatory.

CONCLUSION

Flat benefits, self-adjusting mechanisms, notional accounts, mandatory retirement savings or cash balance provision: the discussion above is just a bare summary. Much could be written on the sustainability of these systems, and whether any of these systems would be appropriate for the United States (I have my favorites), and I've skipped almost entirely the issues of local preferences for lump sum versus life payments, funding versus pay-as-you-go, and annuities/guaranteed investments versus equities, all of which offer instructive comparisons (though I need to do more thinking and learning before I'm ready to do the "instructing" myself). If I look hard enough, I can find research addressing these topics on the websites of prominent think tanks—but not in the broader public discourse.

Perhaps this is a solution in search of a problem. It may be that we indeed have the best possible retirement system, and a change would do more harm than good; or that the limitations of our political system truly do make it impossible to envision a change. Even so, I'd like to think that a look abroad can at least be a conversation-starter and a way forward in the stalled political discussion on Social Security and retirement income in the United States. A

Elizabeth Bauer, FSA, is a consulting actuary with Aon Hewitt, International Retirement & Investment Practice. She can be contacted at *elizabeth.bauer@aonhewitt.com.*

U.S. Social Security Formula (as of 2012)

EACH YEAR'S earnings up to that year's wage base are indexed to reflect wage growth, and the highest 35 years are averaged. Then, the following formula is applied:

- 90 percent x first $767 of indexed earnings, plus
- 32 percent x remaining indexed earnings up to $4,624, plus
- 15 percent of remaining indexed earnings up to the ceiling.