Summary of Proposed Approach to Auto-Enrolled Pensions

Smoothed Investment Returns AND Lifetime Income from Age 75

Colm Fagan October 2019

In November 2018, I submitted a proposal to the Irish Department of Employment Affairs and Social Protection for a new approach to auto-enrolled pensions that involved smoothing of investment returns and (optional) pooling of longevity risk from age 75.

The following is a summary of the proposed approach in non-technical language, prepared initially for a leading politician. Supporting technical papers/ presentations, and details of an earlier similar proposal for drawdown on Group Defined Contribution entitlements, can be found on the website www.colmfagan.ie

1. Key Advantages of the Proposed Approach

- It demystifies pensions. A pension account will look just like a credit union or post office savings account. This simplicity will make its excellent value transparent to members and employers. For every €100 saved, the employee will see an extra €233.33 in his/her pension account, made up of the member's €100, a matching €100 from the employer and a government top-up of €33.33 (these figures are based on the government's Strawman proposals).
- Pension accounts will earn higher interest than credit union, bank or post office accounts. In current conditions, the estimated credited interest rate under the proposed approach is c3% per annum, net of charges. For comparison, government bonds are currently yielding under 0.5% a year. I explain in 4 below how the high returns will be achieved.
- Higher interest rates mean higher account values. After 10 years of saving €100 a month, an employee's estimated account value at 3% interest is 14% more than the corresponding value at 0.5% a year. Each year, the gap gets bigger. After 20 years, there will be 30% more in the account at 3% than at 0.5%. After 40 years, the gap will have widened to 75%. Account durations of 40 years or more will be the norm for employees under 45, because members will retain their pension accounts after they retire (drawing from them post-retirement, contributing to them pre-retirement).
- High interest rates mean that the government's proposed contribution model of 6% employee, 6% employer, with a 2% government top-up can be reduced to 4.5% employee, 4.5% employer and 1.5% government top-up. As a bonus, the lower contributions will deliver higher benefits. The lower contribution levels will be appreciated by employers and members alike (and by government, which will have to contribute a max of 1.5% rather than 2%).
- At retirement, the employee will take 25% of the account tax-free. The other 75% will be used to provide a regular income in retirement. Interest will continue to accrue in retirement. Retired employees can choose (within limits) how much to withdraw from the account each year.
- There will be a special provision to eliminate the risk of retired members outliving their savings. At age 75, members can decide to withdraw their remaining savings evenly over the following 15 years. At the cost of a small reduction in the interest rate, this withdrawal amount will be guaranteed for life, even if the member lives beyond age 90 (i.e. 15 years from 75). For example, if the member's account value is €150,000 at age 75, they can withdraw one-fifteenth, or €10,000 a year (plus interest), for the rest of their life. On death before age 90, any remaining balance in the account is paid to the estate; if the member lives past age 90, payments of €10,000 a year (plus interest) will continue, even though the

account will have been exhausted. The cost of this additional benefit from age 90 will be funded by the small reduction in the credited interest rate between ages 75 and 90.
- Administration will be simple. This means lower costs and less risk of cost overruns than under the government's Strawman proposal, which is modelled on auto-enrolment schemes in New Zealand and the UK. The cost of designing New Zealand's auto-enrolment system was over €300 million. Irish Life, Ireland's largest pension provider, estimates that, if the cost of Ireland's admin system is just one-third of the UK's, it could take more than 80 years to recover the set-up costs.
- There will be no hidden charges. The entire costs of running the scheme will be taken from interest earnings, i.e. the estimated credited interest rate of 3% a year in current economic conditions is NET of all costs.
- Successive governments have tried and failed to persuade more people to save for their pensions. That cycle of failure will finally be broken by the simplicity and obvious good value of the proposed approach.

2. Key Disadvantages

- The main disadvantage of the proposed approach is that contributors will have no say in where funds are invested; however, experience shows that the vast majority of pension scheme members have no desire to choose their own investments. In the UK, over 99% of NEST (National Employment Savings Trust) members opt for the default investment strategy. The small minority who want more control over their investments can opt out of auto-enrolment and buy from a commercial provider. Furthermore, employees who want more control over investment strategy are likely to be higher-paid. An auto-enrolled pension is unlikely to be attractive to such employees, because they only get (implied) 25% tax relief on contributions but could be liable to higher rate tax on benefits. Such employees may be better advised to join a non-auto-enrolled pension scheme, where tax relief can be claimed at the higher rate.
- A related disadvantage of the proposed approach is the lack of choice at retirement. After taking the 25% tax-free cash, the retiring employee must leave the other 75% in the pension account and draw it down gradually over the rest of their life. Under conventional DC schemes - and under auto-enrolment in the UK - the retiring employee can purchase a life annuity or select a drawdown product from a commercial provider. Neither of these is particularly attractive, however. Annuities offer poor value: a retiring 65-year old in good health must live past age 93 to earn a positive return on their investment. As far as drawdown is concerned, charges can be more than 2% a year, compared with 0.5% under the proposed approach. Furthermore, retirees opting for drawdown tend to invest in low-risk, low-return investments: a 2015 study by the Society of Actuaries in Ireland found that over 40% of insured Approved Retirement Funds (ARF's) were 100% in cash. The expected return on a smoothed auto-enrolment account, invested almost entirely in real assets, will be much higher. The slide http://www.colmfagan.ie/documents/36_Document.pdf?d=October%2017%202019%2008:11:47. demonstrates that extra value.
- Under the proposed approach, employees will be obliged to withdraw between a minimum of (say) 4% and a maximum of (say) 10% of their account each year (the maximum is higher from age 80). There is no upper limit to what can be drawn from an Approved Retirement Fund, although withdrawals above the minimum stipulated 4% a year (6% for larger funds) are rare, for tax reasons. Therefore, in practice, this is not s significant disadvantage for the proposed approach.
- Under conventional pension arrangements, and under auto-enrolment schemes in other countries, employees can switch providers, both for accumulated funds and for new contributions. Under the proposed approach, employees will be able to change provider

for new contributions, but funds accumulated to date must remain in the auto-enrolled account until retirement, and then be withdrawn in accordance with the above rules. It should be borne in mind however that (a) discontinued auto-enrolled pension accounts will still earn interest at exactly the same rate as active accounts and investment returns will most likely exceed returns available elsewhere; and (b) there is no risk of being 'locked in' to an underperforming investment manager, because one of the key roles of the trustees of the auto-enrolment scheme will be to select investment managers who will deliver good long-term returns: underperforming managers will be dismissed.

- There is a theoretical risk that the fund could become insolvent if markets suffer a sustained downturn over many years. The possibility of this risk materialising was tested by looking at how the proposed approach would have endured past downturns and possible future downturns. Past experience was simulated by looking at US experience since 1926 and UK experience since 1900. A fund invested 100% in either of those markets would have remained solvent throughout the entire period, including through the great depression of the 1930's and the recession of 2008-2009. Five thousand years of possible future experience (100 simulations, each extending 50 years into the future) were also simulated using a random walk. The worst sequence of results in the simulations of future experience involved the market falling more than 50% in just over two years and not recovering to its starting level for more than thirteen years. The results, which were presented to a Working Group of the Society of Actuaries in Ireland in June 2019 (see http://www.colmfagan.ie/documents/8_Document.pdf?d=June%2006%202019%2017:49:04.) showed the auto-enrolled pension fund remaining solvent through the entire period. Further studies are being completed at present, but the risk of insolvency is extremely remote and would not even emerge as a possible risk for at least 20 years.

3. Colm Fagan: Credentials

The proposed approach is radically different from anything that already exists anywhere in the world. Its very novelty causes some to question its theoretical soundness and practical viability. In order to allay those concerns, I am setting out my credentials as an expert in this field, and my record of practical and theoretical achievements. In other words, I want to demonstrate that I am not a "mad scientist":

- I was President of the Society of Actuaries in Ireland (2005 – 2007) and I have presented at actuarial conferences nationally and internationally (including London's Institute of Actuaries and actuarial/ insurance conferences in Paris and Cologne). My first actuarial paper, in 1977, proposed a solution to a problem that was causing difficulties for many life insurers at the time. My solution was rejected initially by the actuarial profession but became mainstream ten years later.
- I qualified as an actuary in 1977, having joined the profession directly from secondary school. In 1991, I received a master's degree in Management from Trinity College Dublin. After retirement, I studied for a primary degree with the Open University, specialising in pure maths. I qualified in 2013, earning a First-Class Honours degree.
- I was Finance Director, Head of Compliance and Chief Actuary for Bank of Ireland's life assurance company, Lifetime Assurance. I joined the Bank in 1986 and was given responsibility for securing regulatory approval for the new company. I oversaw its subsequent development as it grew to become one of Ireland's leading life insurers.
- I have a strong entrepreneurial record. In 1993 I set up an actuarial consulting business without any external support or capital. The company I formed grew to become Ireland's leading firm of life consulting actuaries, employing 20 actuarial consultants by the time I left. After I retired in 2008, the actuaries I recruited took over the business (now called Milliman Ireland). It is still going strong.

- After retiring from full-time work, I took on a number of independent non-executive directorships. I was chairman of Standard Life International from 2011 to 2018. I was also an independent non-executive director of insurance/reinsurance subsidiaries of other major international financial services groups from Germany, the US, Sweden, France, the UK and I chaired Audit Committees and Risk Committees for those companies. I am now on my last regulated directorship, of a subsidiary of Berkshire Hathaway, which does not, and has no plans to, transact business in Ireland, so I am completely independent of the domestic financial services industry.
- I chaired the trustees of Group Defined Benefit and Group Defined Contribution Pension Schemes between 2008 and 2018.
- I have managed the investments for my personal pension scheme from 1996 to the present time. My investing adventures are recorded in the "Diary of a Private Investor" column, which was published by the Sunday Times (2015 to 2016) and which can now be found at http://www.colmfagan.ie/investments.php and on LinkedIn. My investment record is excellent.

4. Distinguishing Features of the Proposed Approach

A key distinguishing feature of the proposed approach is that funds will be invested almost entirely in real assets, i.e. world equities, real estate, infrastructure, unquoted investments. Those assets have in the past delivered significantly higher long-term returns than bonds and are expected to continue to deliver those higher returns in future. Experts believe that the so-called Equity Risk Premium (ERP) – the excess expected investment return over bonds - is of the order of 4% to 6% a year, on average. The proposed approach assumes an ERP of 3.5% a year on average (before charges, 3% after charges of 0.5% per annum).

The ERP is a well-recognized phenomenon in finance but suffers from the drawback that high volatility is a constant companion of higher expected long-term investment returns. Returns can be negative in the short-term, and a negative run can extend over several years. No-one likes to lose money. Therefore, savers tend to shy away from high levels of exposure to such assets and advisers are reluctant to recommend them to unsophisticated clients or to pension scheme members close to or in retirement. The proposed approach exploits the long-term nature of pension investment. For a national auto-enrolment scheme, positive cash flows are virtually guaranteed for the first three or four decades. Thus, there is enough time to recover any short-term mark-to-market losses.

A second key distinguishing feature of the proposed approach is that investment returns are smoothed over many years. Contributors are credited with the smoothed returns rather than the much more volatile actual returns on the underlying investments. The papers/presentations in http://www.colmfagan.ie/pensions.php show how the proposed approach harnesses the power of the Equity Risk Premium while taming its volatility, thus achieving the desired objective of smoothed returns that are rarely if ever negative and are almost always considerably higher than returns on low-risk assets.

Administration of members' pension accounts will be straightforward. All members – young and old, long-standing and new, active and retired, large and small pots - will be credited with exactly the same rate of investment return ("interest"). The credited rate will change only slowly in response to changes in market values, so it will be possible to declare returns quarterly rather than daily/weekly as is necessary for investments that are marked to market. All these features simplify the task of administering pension accounts. Members will appreciate the lower volatility of smoothed returns. In 100 Monte Carlo simulations of possible future experience over a 50-year period, quoted (smoothed) returns for the first twelve months of the scheme's existence varied from a high of

+7.8% to a low of +2.7%. For the same 100 simulations, 12-month market returns varied from a high of +41% to a low of -25%.

The simplicity of the proposed "single account, same interest rate for all" approach contrasts with the administrative complexity of other approaches to auto-enrolment. The UK's NEST (National Employment Savings Trust) scheme has 56 separate funds for active service members, nothing for retired members. Each of the NEST funds must be priced daily or weekly. Members must specify the fund or funds in which they want their contributions invested. They can also move between funds and between different providers, each of which has its own administration rules and charges, for members and employers. All this optionality results in high costs.

I hope the above brief summary demonstrates the superiority of the proposed approach to more conventional approaches to auto-enrolment.