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Dr Shane Whelan, FFA, FSAI, Proposing Vote of Thanks

to

*Professor John Hills, London School of Economics & Pensions Commission
for paper*

*Demographic trends and the future of pensions in the UK
Read to Society 19th April 2007 in Belfast*

Introduction

It gives me pleasure to propose a vote of thank to Professor Hills for such a succinct overview of proposals, and the rationale behind them, to reform the pension system in the UK. The thanks extend to Adair Turner and Jeannie Drake, his two colleagues on the Pensions Commission, for their years of deliberations recorded in the three Pension Commission's Reports, and summarised for us today. Professor Hills's paper, and the Commission's work that underlies it, is another landmark in the centuries-old debate on how industrialised societies should cater for their aged. Specifically, the paper shows how the system in the UK is delivering to the aged, how that can be expected to develop without any policy action, identifies the key problems that will emerge and suggest a framework that, put in place now, can be expected to mitigate most of those problems.

The paper informs the debate in Ireland too, where a full review of the Irish pension system by the Pensions Board was requested back in February 2005 by the Minister for Social and Family. Two substantial reports were subsequently prepared under the aegis of the Pensions Board, *National Pensions Review* (2005) and, at the further request of the Minister, a supplemental report on a mandatory pension system, *Special Savings for Retirement* (2006). These reports deal more with possible policy measures and less with the principles and rationale underlying the proposed reforms. Given the overall similarities in the central suggestion made in *Special Savings for Retirement* (2006) and that presented here by Professor Hills, the (UK) Pensions Commission's work may be used to give the theoretical rationale behind the current main proposal for reform in Ireland.

UK's and Ireland's Pension Systems Compared

Indeed, the pensions systems in the UK and in Ireland currently have a very similar structural form. Each pension system has two aims: to relieve poverty in the age and

to smooth income over adult lifetime. For each aim there is a distinct structure: the State pension is simply a flat-rate pension to relieve poverty and occupational/private pensions are generally designed to give a degree of income smoothing. Each structure has a distinct method of financing: the State pension is financed on a pay-as-you-go basis (social contract) while occupational/private pensions are pre-funded with taxation incentives (financial contract). The differing financing methods entail that State pensions can be improved immediately while improvements in private/occupational pensions need to be pre-funded over decades. Finally, the risks to the two parallel structures are quite distinct: demographic change and a breakdown of social cohesion is the key risk to the social contract while investment risk is the key risk to the financial contract now that methods to reduce or transfer such risk, such as the defined benefit scheme or with profits policies, are unpopular.

It is no accident that the UK and Ireland have such similar pension systems, as the structures were originally put in place in the early part of the twentieth century when Ireland was part of the United Kingdom. Charles Booth's paper, *Enumeration and Classification of Paupers, and State Pensions for the Aged*, read to the Royal Statistical Society in 1891, articulates well the pragmatism that underlies the design of the current State pension common to our countries. Booth's ideas were developed and broadened into the concept of a social contract in Beveridge (1942), where the state's role was widened to offer financial security to the citizen in return for services and contributions from the citizen to the state. The Finance Act 1921 supported the voluntary establishment of occupational pension schemes by giving tax concessions on contributions and investment income, a concession that has been widened to include all private pension provision.

However natural the pensions system in these isles appears to us, it is an oddity in the context of pensions systems globally. With the notable exceptions of Canada and New Zealand, all other developed nations have in place a compulsory, more earnings-related scheme, following the example of Germany in 1889. State pensions (outside of public servants) in the UK and Ireland are amongst the least generous in the developed world, even lower than US Social Security. The voluntary provision made by just over half of the workers in Ireland to a private or occupational pension (CSO (2004)) gives a patchy and incomplete supplement of the State pension. Hughes & Watson (2005), in a survey of how the current system in Ireland delivers to the aged, highlight that the State pension makes up, by a considerable margin, the majority of income for the vast majority of the retired.

Problem with Individual Retirement Accounts

The proposal by Professor Hills and his colleagues summarized here of supplementing the flat-rate State pension by the proceeds of retirement accounts investing contributions linked to earnings in stock market securities is functionally the same as the 'Special Savings Accounts for Retirement' proposed for mandated savings by the Pensions Board. In fact, starting in Chile in 1981 and supported by the World Bank (World Bank (1994, 2005)), such retirement accounts investing in stock market securities are the most popular design of state systems in the developing world. However, despite their popularity, there is an inherent flaw at the heart of these designs. Put briefly, the contribution levels to such accounts are too low to support the level of pension targeted or, equivalently, the costings of such schemes assume that

the pension saver will bear considerable investment risk in their retirement accounts, will be highly rewarded for that risk, and that risk will have no adverse consequences.

Early in the deliberations of the Pensions Commission, this assumption played on the mind of Professor Hills and his colleagues: “But the shift of investment risk to individuals of modest income is of significant concern.” (*Pensions Commission First Report (2004)*, p.104). In Ireland, the Pensions Board had similar reservations: “Board members, apart from the representative of the Minister for Finance, believe that the proposal for State retirement support [investment guarantees] should be pursued vigorously, because of the potential benefits to supplementary pension provision.” (*Pensions Board (2005)*, p.99). Yet, in the event, such concerns were sidelined. I would like to bring these concerns to the fore again and illustrate the financial significance of the investment risk tacitly assumed.

Investment Risk: Misplaced and Mispriced?

Consider *Table 1*. The table sets out the real returns, real salary increases, investment and administration expenses and the resultant net return above salary escalation assumed for different investment strategies in estimating pension proceeds from a given level of contributions, as employed in both the *National Pensions Review (2005)* and *Special Savings for Retirement (2006)*. These assumptions are very similar to the financial assumptions used in the Pensions Commission costings (*Pensions Commission First Report (2004)*, Appendix C (p.80)) except for administration expenses which the Pensions Commission estimated at between 0.3% to 0.8% per annum.

***Table 1: Real Returns, Expenses and Wage Escalation in Accumulation Phase
[Based on assumptions in National Pensions Review (2005)]***

| Investment Strategy | Real Return | Investing Expenses | Administration Expenses | Real Salary Increase | Net Return above Salary Escalation |
|-------------------------|-------------|--------------------|-------------------------|----------------------|------------------------------------|
| | % p.a. | % p.a. | % p.a. | % p.a. | % p.a. |
| 100% Equities | 6.00 | 0.65 | 1.5 | 2.0 | +1.85 |
| 100% Government Bonds | 1.75 | 0.10 | 1.5 | 2.0 | -1.85 |
| 100% Index-linked Bonds | 1.75 | 0.10 | 1.5 | 2.0 | -1.85 |
| 75% Equities, 25% Bonds | 4.94 | 0.51 | 1.5 | 2.0 | +0.93 |
| 50% Equities, 50% Bonds | 3.88 | 0.38 | 1.5 | 2.0 | 0.00 |

Table 1 shows how the investment strategy pursued in the individual retirement account can lead to a difference in the expected return above salary escalation of anywhere between -1.85% per annum and +1.85% per annum. The significance of this variation of possible returns on the ultimate pension is set out in *Figure 1*. *Figure 1* graphs the contribution rate, as a percentage of salary over a 40 year working life, to provide an fixed salary-related pension in retirement for 20 years, as a function as of the assumed investment return above salary increases before retirement. (Note that we have assumed a 0% rate of return above wage escalation after expenses in the drawdown period.)

Figure 1: Level Contribution Rate as a % of Salary over working life of 40 years to provide a pension of half salary in retirement for 20 years (increasing with salary increases), under various assumed net rates of return above wage escalation

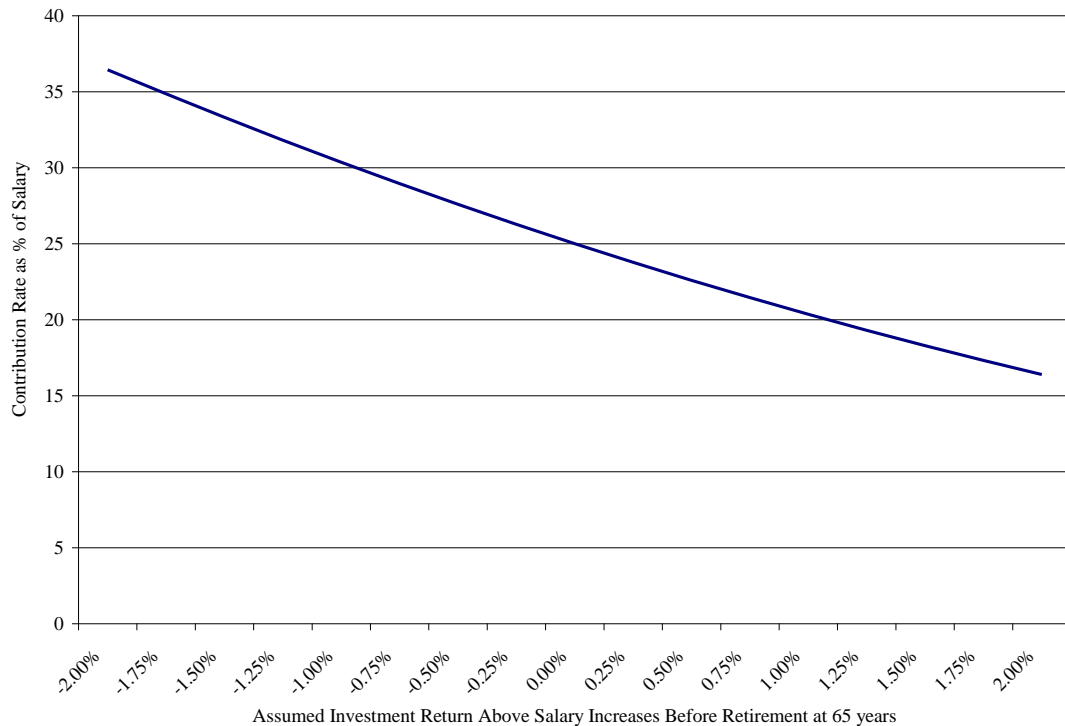


Figure 1 highlights the sensitivity of the contribution rate to the assumed net investment return above salary escalation prior to retirement. In particular, note that the contribution rate is 17% of salary per annum to provide a pension of half salary at a positive 1.85% rate of return above wage escalation while at a negative 1.85%, the contribution rate more than doubles to 35%. Accordingly, on the assumptions underlying the costings, safe index-linked investments of suitable duration to match the target pension will deliver a pension just less than half of the pension delivered by investing all in equities. The assumptions underlying the appropriate investment strategy or, equivalently, the degree of investment risk appropriate for pension savers, is thus very material to the expected pension.

So what is the appropriate level of investment risk for such pension savers? I contend that, for modest and mandated savings, those investments that produce the most transparent and dependable pension – that is, the least risk investments in this context – are the only suitable investments from the point of view of both the majority of individual savers and the State. The aim of national pension policy is to provide a certain minimum pension for all. It is simply not consistent with that aim to mandate savings at a certain level – whether by ‘auto-enrolment’ or by full compulsion – and then recommend or allow investment in high risk investments.

However, the projections of the UK Pensions Commission and Ireland’s Pension Board anticipate the risk premium from investing in risky assets in estimating the ultimate pension from such retirement accounts, while ignoring any possible consequences of risks borne. This produces forecasts inconsistent with market values, which naturally allow for the market price of risk. (In fact, the whole point of the capital markets is to price and transfer risk.) The upshot is that the expected pensions

to be delivered by individual retirement accounts are far too high – the investment risk borne is mispriced and, to my mind, the investment risk is misplaced in such mandated or quasi-mandated retirement accounts.

It is somewhat ironic to reflect that an underlying reason why pension reform is now particularly opportune is due to the recent decline in popularity of the defined benefit design for pension schemes in the UK and Ireland, and their projected complete demise outside of the public sector. One of the causes for the decline– a cause at least as influential as the well-documented unanticipated increase in longevity – is due to a realisation of the financial significance on the sponsoring employer of the investment risk inherent in their high equity investment strategies (Whelan (2003, 2007a)). The proposed solution of retirement accounts investing in risky assets is simply replacing one system, failing because of its reliance on the equity risk premium, with another with the same inherent flaw.

Superiority of Sustainable Pay-as-You-Go over Individual Retirement Accounts investing in low risk investments

Whether you agree with the above argument or not, let us assume for the moment that modest and mandated pension savings should be invested in least risk investments. Now the least risk investments for pension savers in Ireland and the UK are government guaranteed index-linked stock of suitable duration. But a market in government guaranteed index-linked stock is just the state committing future taxation revenues to meet its financial obligations under such instruments. The current pay-as-you-go (PAYG) pension system is the state committing future taxation revenues to meet its social obligation. So, on a look-through basis, a defined contribution arrangement investing in index-linked stock is almost the same as a PAYG system. Indeed, in a sustainable PAYG system the return to contributors can be shown to be the same as the gross expected return from such index-linked stock (see Whelan (2007b)). However, the PAYG system has lower administration costs than the individual retirement account model. Estimates vary in the cost savings between the two systems, with Professor Hills and his colleagues putting the savings as being equivalent to about 0.5% per annum of the value of the accumulated contributions in the accumulation phase while the Pensions Board (2005, p. 226-7) estimates that administration costs saved to be of the order of 1% per annum. Extra costs of these magnitudes in the pre-retirement phase reduce the ultimate pension by between 10% and 20%, based on the same assumptions underlying *Figure 1*. Following this line of argument through to its conclusion, suggests that developing a sustainable PAYG system can deliver better value for money to contributors because of economies of scale than the proposed system based on individual retirement accounts.

Conclusion

I conclude by thanking Professor Hills, and his colleagues on the Pensions Commission. His paper informs the debate as much in Ireland as the UK. Given the integration of our labour markets, it would be ideal if a similar solution be found to the common challenge. While the debate on the form of the pension system for the 21st century is much earlier in Ireland than the UK, I have little confidence in that outcome. The State pension is deeply popular in Ireland (Ó Gráda (2002)), and, on the

basis of arguments summarized here, I believe it to be demonstrably the most efficient vehicle to deliver a citizen's basic pension in the future.

References

- Beveridge, W. (1942) *Social Insurance and Allied Services: Report by Sir William Beveridge*, HMSO, CMND 6404.
- Booth, C. (1891) *Enumeration and Classification of Paupers, and State Pensions for the Aged*. *Journal of the Royal Statistical Society*, 54, 4 (Dec), 600-643.
- CSO (2004) *Quarterly National Household Survey – Pensions Update*. Central Statistics Office, www.cso.ie.
- Hughes, G. & Watson, D. (2005) *Pensioners' Incomes and Replacement Rates in 2000*. Policy Research Series 54, The Economic and Social Research Institute, Dublin.
- Mahon, A. (2005) *Irish Occupational Pensions: An Overview and Analysis of Scale Economies*. Unpublished MBS by Research Thesis, Waterford Institute of Technology.
- Murthi, M, Orszag, J.M. & Orszag, P.R. (1999) *Administrative Costs under a Decentralized Approach to Individual Accounts: Lessons from the United Kingdom*. Presented at the conference on *New Ideas About Old Age Security*, The World Bank, September 1999.
- Ó Gráda, C. (2002) *'The Greatest Blessing of All': The Old Age Pension in Ireland. Past & Present*, (Oxford) 175, 124-161.
- Pensions Board, The (2005) *National Pensions Review*. The Pensions Board, Dublin 2.
- Pensions Board, The (2006) *Special Savings for Retirement*. The Pensions Board, Dublin 2.
- Turner, A., et al. (2004) *Pensions: Challenges and Choices. The First Report of the Pensions Commission*. The Stationery Office (UK) or available at www.pensionscommission.org.uk.
- Turner, A., et al. (2005) *A New Pension Settlement for the Twenty-First Century. The Second Report of the Pensions Commission*. The Stationery Office (UK) or available at www.pensionscommission.org.uk.
- Turner, A., et al. (2006) *The Final Report of the Pensions Commission*. The Stationery Office (UK) or available at www.pensionscommission.org.uk.
- UK Pensions White Paper (2006b) *Personal Accounts: A New Way to Save*. The Stationery Office [UK] and available from www.dwp.gov.uk/pensionsreform/new_way.asp

- Whelan, S. (2003) *Promises, Promises: Defined Benefit Pension Schemes in a Cynical Age*. Irish Banking Review, Winter, 48-62.
- Whelan, S. (2006) *A Constructive Critique of Pension Policy in Ireland*. Proceedings of the 21st Annual Conference of the Foundation for Fiscal Studies 2006 (48 pp) [Forthcoming].
- Whelan, S. (2007a) *Defining and Measuring Investment Risk in Defined Benefit Pension Funds*. Annals of Actuarial Science, 2, 1 [Forthcoming].
- Whelan, S. (2007b) *Valuing Ireland's Pension System*. Quarterly Economic Commentary of the Economic & Social Research Institute, Summer 2007, 55-80 [Forthcoming].
- World Bank (1994) *Averting the old age crisis*. Oxford University Press.
- World Bank (2005) *Old-Age Income Support in the 21st Century*. The World Bank, Washington, D.C.