Pension Provision in Ireland for 21st Century

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A report prepared for the Irish Association of Pension Funds to help further the debate on our national pensions policy.

About the Author

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I. *Promises, Promises: Defined Benefit Pension Schemes in a Cynical Age*. Irish Banking Review, Winter 2003, 48-62.
II. *Prudent Pension Planning*. A short book (43 pp) published in December 2002 by Hibernian Investment Managers.
III. *Evolution of the Asset Distribution of Irish Pension Funds*, Irish Banking Review Summer 2002, 42-52.
IV. *Investing the National Pensions Reserve Fund*, Irish Banking Review, Spring 2001, 31-47.
V. *CPI: Impact on the Retired*, Quarterly Economic Commentary, ESRI, Dec. 2000, 43-55.

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Introduction

A national pensions review, required under the Pensions (Amendment) Act 2002, was recently brought forward from 2006 by the Minister of Social and Family Affairs, Mr Seamus Brennan. The review's scope includes reviewing the coverage targets set out in the Pensions Board Report (1998) and addressing the options to improve pension coverage and adequacy.

The Pensions Board Report (1998) put forward an ultimate target of 70% pension coverage for workers in Ireland over age 30 years outside the basic State scheme, spread across the income spectrum but specifically including the less well off (p.92). The most recent available survey, CSO (2004a), reports that 39% of those in employment are members of occupational pensions schemes and a further 13% are making individual private provision through pension vehicles. Total coverage is therefore just 52%, and this coverage figure increases to 59% if restricted to those aged over 30 years. While the Pensions Board did recommend that the position be reviewed five years after the implementation of its proposals (especially the Personal Retirement Savings Account initiative introduced in mid 2003), circumstances have changed considerably in the meantime. The threat to the future of defined benefit schemes – a benchmark in terms of providing adequate replacement income – is undermining the national pensions policy as set out in the Pensions Board Report (1998). The emphasis of policy must switch from incremental widening of coverage to first protecting the coverage and adequacy of the existing system and, from a more solid foundation, only then enhancing coverage and adequacy. In short, pension coverage and its adequacy in Ireland is in danger of slipping back with the retreat of defined benefit pension schemes.

The Pensions Board Report (1998) mentions a simple if severe way of achieving and exceeding its coverage and adequacy targets: "Any desired coverage rate can be achieved by sufficiently severe compulsion" (p.132). This solution is becoming increasingly popular internationally. But, compulsion, if used, must be used wisely: "it is essential to balance the risk and costs of compulsion with the benefits it can achieve and go no further down the road of compulsion than is necessary to achieve agreed objectives" (p.132).

The Irish Association of Pension Funds commissioned this report to set out the issues and further the debate on Ireland's national pensions policy, treating, in particular, the issue of introducing compulsory saving for pensions. The report attempts to avoid arguments based solely on ideological lines, preferring a pragmatic approach based on perceived inadequacies of the current pension system in Ireland. The report attempts to put the current debate on the national pension system into a long term context; such a context is necessary as any new pension

system must be capable of delivering pensions to a least a few generations of retiring workers – that is, capable of lasting a hundred years or more. The rationale underlying the design of the current State system was, perhaps, best made by Charles Booth in his paper presented to the Royal Statistical Society in 1891 and, throughout this report, that exceptional paper is quoted.

Summary

The probability that a person in Ireland will reach the retirement age of 65 is over 80%, and those who reach this milestone can look forward to at least fifteen years in retirement.[1] Yet many do not make any significant financial provision for these years and, when not able to work, will rely almost solely on the State pension for their income.

The most recent available survey, CSO (2004a), reports that 39% of those in employment are members of occupational pensions schemes and a further 13% are making private provision through pension vehicles. Total coverage is therefore just 52%, and this coverage figure increases marginally to 59% if restricted to those aged over 30 (but shows no further increase with increasing age).

Most of those making advanced provision for retirement are not doing so voluntarily. Of the 39% of workers covered by occupational pension schemes, one-third are members of public sector pension schemes, and the remainder are divided equally between private sector defined benefit occupational schemes and the newer private sector defined contribution schemes. Membership of these schemes is generally compulsory and, where voluntary, the very significant employer and State subsidies give such extraordinary value for money in comparison with members' subscriptions that they may be regarded as essentially compulsory.

Accordingly, to all intents and purposes, the current pension system in Ireland is one based on compulsion at an individual level: compulsory contributions to the state contributory scheme, compulsory membership of occupational schemes for public sector workers (with the associated wage reduction), and compulsory membership of occupational schemes for some private sector workers (with the associated wage reduction). Even the relatively small percentage making voluntary provision may not, arguably, be primarily stimulated to provide for their advanced years but rather incentivised to save through tax-efficient pension products than other, comparatively less tax efficient, savings media (see, for instance, Hughes (2000) for a development of this argument).

It is a remarkable feature of our current pension system that those in such compulsory schemes do not campaign for their abolishment, and the consequent immediate increase in wages and, equally, those not having membership do not campaign for the introduction of such schemes. However, trends in pension provision are showing that the traditional model above appears to be breaking down. The growth in pension provision over the last few decades has been in the defined contribution scheme and independent private provision where, typically, the individual

can exercise more control over their level of contribution. However, cover remains patchy and, in the case of defined contribution schemes and private provision, perhaps the level of savings might lead to inadequate pensions.

The current national pensions policy is set out in the report, *Securing Retirement Income*, prepared by the Pensions Board (1998). The main emphasis of policy is to attempt to achieve an incremental widening of pension coverage by voluntary inducement and special initiatives and to monitor targets for the adequacy of the coverage in terms of the ratio of post to pre retirement income. But events over the intervening years since the formulation of the plan threaten the future of defined benefit scheme in the private sector and policy must react in some way or pension coverage and its adequacy in Ireland is in danger of slipping back with the retreat of defined benefit schemes.

The current regulatory regime for private sector defined benefit pension schemes does not attempt to determine whether the sponsoring employer is making reasonable and fair provision for the pension promise but treats the pension promise as a contractual guarantee and demands that the employer maintains assets to at least that value at all times. The employer is essentially being required to underwrite the risk that the scheme's assets track the changing price the market puts on the future benefits. This is too severe an interpretation of the pension promise and if regulation does not change then there will be significantly fewer such schemes to regulate in the future.

Changing regulation will, at best, merely maintain the current situation: it will not lead to an increase in coverage or the adequacy of the coverage. Yet the current pension system in Ireland leaves much to be desired in the standard of living it delivers to the aged. Retired households are disproportionately concentrated in the lower income deciles of all households and, as outlined in the comprehensive overview in Hughes & Watson (2005), State benefits make up, by a considerable margin, the majority of income for the majority of the retired. For the wealthiest two-fifths of the retired sources of income aside from state pensions have a significant impact. An occupational pension of even relatively modest size is sufficient to rank the pensioner amongst the wealthiest. Finally, single pensioners (especially single female pensioners) are the poorest of all and there is a marked tendency to get relatively poorer as one ages. Projecting changes in pension provision over the three decades suggest that the quantum of occupational pensions will increase significantly in the next couple of decades as the maturing industry plays out larger pensions. This will tend to exacerbate the income divide in retirement between those with private pensions and those without.

The snapshot above is of those currently retired but, unless action is taken in the meantime, it will be similar for the next generation of retirees. If the relative poverty of the aged in Ireland is to be relieved within the next decade or so then the economics of pensions allows only one solution: increase the level of State pensions. Other methods, even such a drastic measure as making pension saving mandatory for the current generation of workers, will take over a decade to mature to the point of providing financially significant benefits. So, if it is believed that the problem is immediate, then the solution is evident. If, though, it is argued that the problem is deepening with time, then timely pre-funding is clearly an option.

The World Bank report issued in 1994, *Averting the Old Age Pension Crisis*, provided focus to growing concerns that longer life expectancies, coupled with lower fertility rates, was creating such strains in pay-as-you-go national pension systems that many required radical reform. The report provided a framework to help reform existing systems. World Bank (2005) revisited the model, taking account of criticisms of its original framework and incorporating lessons learned from its involvement in pension reform in more than 80 countries. Notably, World Bank (2005) qualifies its previous advice in many respects - stressing the dependency of the ultimate effective system on the special conditions of the economy (the political economy and inherited pension system), tempering its controversial advocacy of compulsory savings (so-called, 'pillar 2') and pre-funding generally, and, in short, shows a greater tolerance of diversity. In particular, compulsory savings (and pre-funding generally) is less prioritised, its complete absence can be envisaged in an effective system, and this option is now put forward primarily as a benchmark against which alternative options can be evaluated.

The State pension system in Ireland, despite its importance to the elderly, does not represent a large transfer in our economy and, even when projected half a century into the future, appears sustainable in its present form. Public expenditure on pensions in Ireland in the year 2000 was the lowest of the 15 major European countries, at just at 4.6% compared to the average of 10.4% of GDP (GNP for Ireland). Even when projected to the year 2050, allowing for the expected dramatic fall of the pensioner support ratio in Ireland, the estimated cost of maintaining our current system (with pensions indexed to wages) is still lower Ireland in 2050 than the average cost for the EU *in 2000*. So the Irish pension system is considerably less constrained by considerations of financial sustainability than our European neighbours. The comparative lack of financial constraints allows one to consider how the State system might play an increased role in improving the lot of the aged. For instance, if poverty of the aged in Ireland is deemed a current problem, then the level of State pensions could be more than doubled immediately and inflation-indexed (as opposed to the more generous wage-linkage) and this would not lead to the forecasted cost of State pensions being any higher in 2050.

The argument of affordability is key. Arguments as to whether future pensions should be provided by pre-funding versus pay-as-you-go are secondary. We contrast briefly the financial discipline of pre-funding versus the social contract of pay-as-you-go but like others before us (see, for instance, the recommendations of Commission on Public Sector Pensions (2000)), find no compelling reason why full-funding is desirable, especially in Ireland where it cannot be expected to accelerate economic growth as it will not deepen the capital base. It might, though, be desirable to smooth costs by partial funding at times.

Finally, we conclude by considering some alternatives to the current system. The possibility of introducing compulsory savings, in tandem with an improved State pension scheme is discussed. Since the State scheme has, by assumption, relieved the issue of poverty in the elderly, the aim of such a compulsory savings scheme is to smooth income earned over the working life to cover the entire adult lifetime. Such a scheme was proposed and costed in Ireland in 1976 (Green Paper by Department of Social Welfare, *A National Income Related Pension Scheme)* and a scheme of this nature was attempted in the UK. The UK gives a cautionary lesson as the pay-related scheme previously adopted has now been abandoned. Pay-related schemes require workers to set aside quite a considerable part of their wages to provide for the future and, inevitably, tend to be complicated. The earnings-related model is rejected on the grounds that the individual is best allowed decide when to spend discretionary income during their lifetime, once their basic requirements are met.

The threat to the defined benefit scheme is a threat to the future development of replacement ratios post retirement. The challenge is for the defined contribution scheme and individual private provision to play an increasing role in the future – especially in terms of adequacy of post-retirement income. The defined contribution scheme and individual private provision may not be up to the challenge. It is well-documented that contributions to defined contribution schemes in Ireland are considerably below the high levels required to provide the targeted income replacement ratio.

Pension savings are too important to be left to the capriciousness of the capital markets. Previously, the need to cushion the direct impact of market volatility on pension payments was met by devising intermediate pooling arrangements such as the defined benefit scheme and the with-profits contract. The Irish pension system currently benefits from such a cushioning intermediation and, ideally, it should be a feature in any new system devised. Indeed, failure to continue to provide such a cushion must discourage pension savings as the risks faced are viewed as too great for the expected rewards.

There is only one entity that can now provide the required intermediation between the individual and market: the State. A significant intermediation in voluntary pension provision would be for the State to guarantee to issue index-linked life annuities to retirees at a fixed real rate of interest. The fixed real rate of interest would be set so that, over the long term, the expected cost of operating such a guaranteed annuity fund is zero – that is, the expected cost of providing the index-linked life annuities is in line with the best estimate of their average actual cost over the long term. The annuity rate could be unisex so that the gender of retiree does not create differential pensions (entailing a cross-subsidy from males to females, given the relative greater longevity of females) and the rate could be independent on the amount of purchase money (entailing a cross-subsidy from the poorer to the wealthier, given the relative greater longevity of the wealthy).

The aim of cost neutrality entails that all pension savings must be compelled to purchase the State annuity come retirement. The compulsory purchase terms are then just another requirement to avail of the favourable deferment of income taxation allowed under the taxation regime.

The simple device of a State annuity fund can overcome the key problems associated with defined contribution arrangements. Come retirement, the pensioner enjoys an index-linked pension – giving ease of mind on their purchasing power for the remainder of their lifetimes – which is a considerable improvement in quality on the current level nominal pensions, decreasing in real terms, typical of defined contribution schemes. Prior to retirement, the fixed annuity terms give clarity to the amount of savings necessary to achieve the desired replacement ratio and facilitate the management of investment risk. All moneys from tax-approved arrangements, including defined benefit schemes, are subject to the same requirement to purchase the State annuity so that these pensioners also enjoy the security of a State guarantee. The introduction of the compulsory purchase annuity scheme can be expected to give immediate relief to the financing strains currently experienced by such schemes, the extent of the relief depending on, inter alia, the annuity conversion terms agreed and the gender mix of the occupational scheme. In the future, the introduction of such a State annuity scheme will allow trustees of occupational schemes, like members of defined contribution arrangements, to control better the residual investment risk.

Long Background to the Debate on a National Pension System

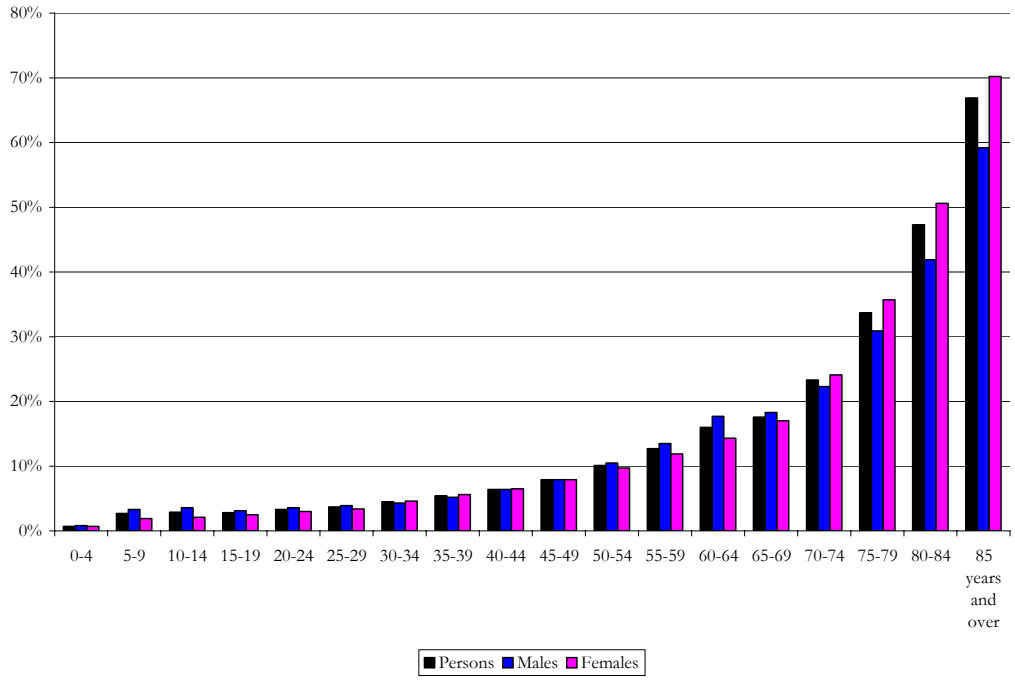
> "Some men have less prudence than brutes, and will make no provision against age until it comes." Daniel Defoe (1697), *An Essay on Projects.*

Welfare of the Elderly

The pension crisis is not a uniquely 21st century problem: it has always been with us. As early as 1697, Daniel Defoe put forward the idea of a national 'Pension Office' to provide pension and medical care come old age, incapacity, or widowhood. He argued for benefits proportional to contributions and for the scheme be voluntary but with strong incentives to join.[2] More than three centuries later the debate continues, and along similar lines.

The welfare of the elderly is considerably broader than the issue of old age pensions – it includes, as Defoe's scheme recognised, the greater need for medical and long term care due to incapacity that often accompanies ageing; but it also encompasses, as highlighted by the National Council for the Elderly (1994), the general respect afforded by society to its elderly.[3] The graph below highlights the pronounced relationship between incapacity and age.

Graph 1: Persons, Males, and Females with a Disability Classified by Age Group and Percentage Disabled, Ireland in Year 2000



Source: Central Statistics Office (CSO).

The close relationship between increasing age and increasing demand for medical and care services can be documented in many other ways so twinning the issues is natural from a financing perspective (and, as Department of Social & Family Affairs & Mercer (2002), makes clear, the proposed solution will be similar). Twinning the issues can also be urged on the grounds that the independence allowed by a financially secure old age, coupled with community-based health support, can be expected to reduce or postpone chronic dependency requiring more expensive, and less satisfactory, institutionalisation. In this report we only review the pension issue but the insights can be expected to carry over to medical and long-term care aspects – including the contentious issue of voluntary or mandatory advanced provision by individuals.

History of State Pension Systems - International

Germany, in 1889, was the first state to introduce a pension scheme with wide coverage (about one-quarter of the entire population). The system was a compulsory scheme for blue-collar workers below an income threshold, which levied contributions on both employees and employers and paid benefits on an earnings-related basis. The scheme had the twin objectives of relieving destitution in old age and providing a degree of income smoothing for workers over their lifetime. Over the years, it expanded to include the entire German workforce (key expansionary dates being 1911, 1957, an 1972) and the system was adapted and applied in Italy and Spain (1919), Belgium (1924), France (1930), Portugal (1935), and Switzerland (1948).

The second state pension system, introduced in 1891 in both Denmark and Iceland, adopted a fundamentally different model, with the single objective of relieving poverty in old age. This alternative system pays a flat rate pension, paid from general taxation revenues, to all over a certain age subject to a means test. This system proved equally popular and was adopted in New Zealand (1898), the UK including Ireland (1908), Australia (1908), Canada (1927), and Norway (1936). Ireland's existing system follows this model.

From the late 1930s, more hybrid systems came into vogue, with a means-tested flat rate system to relieve poverty together with a pay-related contributory pension to smooth earned income over the individual's entire lifetime. Such schemes were introduced, for instance, in Finland (1937) and US (1937). Since the Second World War, there has been a general tendency towards such hybrid systems.

Cutler & Johnson (2004) analysed the factors that lead to the adoption of a particular system in a country but can only conclude that " …that there are many plausible reasons…and that different factors might be relevant in different countries" (p. 89) but they stress "…what is particularly

apparent about social security systems is how durable they are…[so] making the initial decisions correctly is a particularly important issue" (p.116).[4]

History of State Pension System - Ireland

The old age pension, Ó Gráda (2002) persuasively argues, was the "the most radical and far-reaching piece of welfare legislation enacted in Ireland in the twentieth century". Financing the old age pension in Ireland precipitated a constitutional crisis in the UK, was a controversial and a defining issue between the political parties in the early years and empowered local Irish politics. The Old Age Pension Act 1908 literally shaped the nation as it effectively subsidised the rural community, cushioning it from full forces of urbanisation. The complexity of the influence it has had on Irish society, aside from the obvious and immediate welfare of the elderly, highlights the difficulties in forecasting the affects of any fundamental change to the pension system. Any change to our national pensions system can be expected to ripple out into unexpected places. Clearly, we can learn much from studying the experience of other countries, especially if the reform of their pension system was initiated from a similar position.

After the Old Age Pension Act 1908, the next major change in the structure of the Irish State pension system was the Social Welfare Act 1960. This Act paved the way for the Old Age Contributory Pension in 1961, and a wave of reform in the early 1970s. These reforms included the introduction of a contributory Retirement Pension from age 65, and the lowering of the pension age from age 70 to 66 for both the Contributory and Non-Contributory Old Age Pension.

Despite the use of insurance terminology, the 'Social Insurance Fund' into which compulsory contributions for State pensions are paid is not a fund accumulated to meet the future liabilities. There is no advanced provision for undertakings as current contributors pay, with support from general taxation if necessary, current beneficiaries. It is a pay-as-you-go scheme, with contributions and benefits having little relationship with one another. In short, financing is essentially just another form of income taxation – albeit an earmarked taxation according a heightened expectation of a pension.

Since its introduction, the contributory old age pension has always been between 22% and 33% of average industrial earnings with a tendency over the four decades to increase at a slightly higher rate than average earnings (Hughes & Watson (2005), pp. 30-31).

Background to the Current Debate in Ireland

The 1970s was a period of major reform to our pension system. The ambitions of the reformers went even further: the Department of Social Welfare (1976) issued a Green Paper, *A National Income Related Pension Scheme,* which considered the extension of the current flat rate state system to a compulsory earnings-related pension scheme. The Green Paper remains pertinent today as the structure of our pensions system has remained remarkably similar over the intervening three decades. The Green Paper, later developed into a White Paper that was never published[5], rehearsed many arguments that are once again topical - such as pre-funding or pay-as-you-go financing. The report provided costing on three variants of a State Earnings Related Pension Scheme (SERPS), which bear a similarity to the UK SERPS proposed at that time, subsequently implemented, and recently abandoned.

However, the economic malaise of Ireland in the 1980s put employment creation as the more pressing problem, relegating the problem of post-employment income. Accordingly, the Commission on Social Welfare (1986) and the newly established National Pensions Board (especially, National Pensions Board (1988)) shifted emphasis away from compulsory earnings-related pensions, a long fingering that seemed prudent as the UK SERPS was running into implementation complications. The National Pensions Board issued a series of reports tacking various pension issues, leading to the Pensions Act 1990 and subsequent amendments. The final report of the National Pensions Board (1993), *Final Report: Developing the National Pension System*, considered and temporarily deferred the decision on advising on a compulsory earning-related scheme (whether public or private) for two reasons:

(1) "the current economic climate and the effect increased contributions could have on both existing jobs and future job creation, and"
(2) "the absence of detailed information in the current lack of pension coverage".

The Pensions Board superseded the National Pensions Board and, following a broad consultation over 1996 and 1997, issued a strategy for developing the national pension system (*Securing Retirement Income*, Pensions Board (1998)). As noted in the Introduction, this Pensions Board report, and particularly its targets for pension coverage and adequacy, set the scene for the current renewed debate on whether pension provision in Ireland outside the current state flat rate system should remain voluntary or become compulsory.

The Different Parties to the Debate

The National Pensions Board was split in three when it last considered shifting from the current voluntary regime of providing for pensions supplemental to the basic State pension. The trade unions were for the introduction of a compulsory scheme, subject to the details being agreed by the social partners; the employers groups (Irish Business and Employers' Confederation and the Construction Industry Federation) were against compulsion under any circumstances; and other members of the Board were less decisive, accepting that "…it may be appropriate to introduce some provision for compulsory income-related pensions at some future date".[6]

The UK is currently reviewing its own pension system, having established a couple of years ago a Pensions Commission with the remit of advising, amongst other things, "…whether there is a case for moving beyond the current voluntarist approach". Compulsory savings is the solution currently urged in UK by the Trades Union Congress (backed by charities such as Age Concern and Help the Aged), but opposed by the Confederation of British Industry and the National Association Pension Funds.[7]

The line dividing trade unions and charities on one side from employer groups and the savings industry on the other is as old as the debate on the pension systems itself. McCashin (2004) points out these old social partners were originally divided a hundred years ago on introducing the State old age pension itself - with the trade unions (supported by the then influential Cooperative movement) demanding a pension as a basic right, opposed for a long time by, amongst others, friendly societies (then the dominant savings institutions of the working class). In an interesting parallel to modern conditions, friendly societies turned to favour basic pensions in 1902 when lowering interest rates and inadequate reserving created widespread solvency problems.[8]

The Economics of Pensions

To fund or not to fund

There are two generic ways to provide for old age – to store current production for future use or to lay claim on future production in some way.

It is impossible to provide for many things in the future by hoarding them now (e.g., medical or other services in the future, many foodstuffs) and, even when possible, is often not desirable because there are more efficient methods of achieving the same ends, which might provide for a real rate of increase or allow for changing tastes. In fact, storing current production is only used to a significant extent in housing where the owner-occupier is essentially storing their future housing needs through ownership. This exception is important when comparing the level of pension provision in Ireland with other economies, as Ireland has the second highest proportion of owner-occupiers in the world at 80% (see later).

So, outside of housing and some other more modest items, provision for retirement must be made by laying claim to future production in some manner. Again, two generic ways have evolved to achieve this: by a 'social contract' or through the capital markets. The social contract is where the current working population agree to provide the pensions for the current retirees on the understanding that, when they retire, the next working generation will provide for them. The social contract is simply an aggregate form of the traditional arrangement where offspring look after their ageing parents.[9] This understanding is envisaged to persist indefinitely. The alternative is that the individual provides for retirement by acquiring capital assets that can be exchanged at a later date for goods and services.

The social contract does not involve the building up of a fund as contributions to the social fund are paid out as benefits – a system known as 'pay-as-you-go'. Through history this method has proved popular for state schemes. Pay-as-you-go is primarily the method adopted by the Irish State,[10] whether it is providing for State pensions (contributory or otherwise) or occupational pensions for former public sector employees. Internationally, pay-as-you-go was applied almost universally to state pension schemes until recent times.

One reason why the intergenerational social contract has proved so popular is that it does not have the long gestation period of a funded scheme. As developed in the next section, decent pensions require considerable saving discipline over a considerable timeframe, with the result that it can take decades before a newly created funded scheme can provide benefits of any

significance to contributors. This long timespan of foregone spending proves itself as unattractive to the State as it does to the individual.

The social contract suffers from a related inherent problem: the social contract imposes little financial discipline, which can mask the unsustainability of the scheme. Will the next generation be bound by the deal? For almost a century, the bargain has been kept in Ireland and elsewhere and the contract shows extraordinary resistance to reducing promised benefits: witness, in Irish history, the long memory of Ernest Blythe's unpopular and soon reversed cut to the old age pension in 1924; witness, the recent defeat of the French government in 1995 and Italian government in 1998 when attempting a scaling-back of their State pension systems. So, while at first sight, the pay-as-you-go scheme bears the appearance of arbitrariness on such key matters as the retirement age and quantum of benefit, in Ireland and elsewhere, it has been very popular over its long history. In Ireland, few concerns are raised on the long-term sustainability of the State scheme (see later).

The funded model builds up a fund to meet the outgo, the size of the fund often approximating the value of the benefits. If the fund is considerable in relation to the economy (as it is generally is with State schemes), it requires an aggregate re-allocation of the resources within a closed economy away from current consumption to current production. This deepening of the capital stock can be expected to lead to higher rates of economic growth in the future. In a small open economy like Ireland, if a funded scheme were to be created then current consumption would fall but this could not lead to higher future growth rates as the considerable funds will, in all likelihood, be invested outside the economy (similar to the National Pensions Reserve Fund which maintains an negligible exposure to Ireland).

Should a pay-as-you-go State scheme change to a funded scheme then the current working population would be subjected to the double burden of paying pensions to the current retirees (under the social contract) while saving for their own pensions. This increased cost burden would be maintained for the couple of decades or so until the funded scheme is mature enough to support adequate pensions.

One of the key risks of an unfunded or pay-as-you-go scheme is the risk associated with demographic change. A forecast increase in the proportion of pension recipients to workers can be expected to increase the financial burden on the workers. Of course, considerable international concern is focussed on this possibility. The resultant tension on a pay-as-you-go system might lead to a compromise between increasing contributions, increasing the workforce

through emigration, increasing the age of pension entitlement, or reducing pension and other benefits to the elderly.

Receiving less attention is that such demographic change would also put strains on a funded system, although the mechanism would be less transparent. A funded scheme would have to sell assets in such a scenario but the supply of assets would not be matched by demand from the smaller pool of workers in a closed economy, leading to a fall in the value of capital assets, other things being equal. For Ireland, investments would be largely overseas but this would not help, but possibly even worsen the situation, as the financial claims are redeemable against the rich developing economies whose population is ageing even more rapidly than Ireland's. While this effect is more speculative and less direct than under a pay-as-you-go scheme (and involves some non-trivial considerations on the price-sensitivity of the demand for capital assets and the rate of growth of developing economies), it nevertheless allows us to conclude that prefunding does not make the system immune to demographic change (also see, for instance, Barr (2000), Brooks (2000) for further analysis).

We conclude this section with an obvious point. The distribution of wealth and pre-emptive rights to economic output in a capitalistic democratic economy is a balancing act between democratic tolerance and economic power. If, for instance, a non-economically active section of the economy such as the retired should gain too powerful pre-emptive rights over economic output, then the economically active, including workers, can be expected to assert their wishes for redistribution – by, say, altering the tax system (if in the electoral majority) or through relative price changes (cost of labour versus capital).[11] The point is that both pay-as-you-go and pre-funding require the support of the next generation, albeit in different ways, to succeed in their objective.

Funding for Pensions

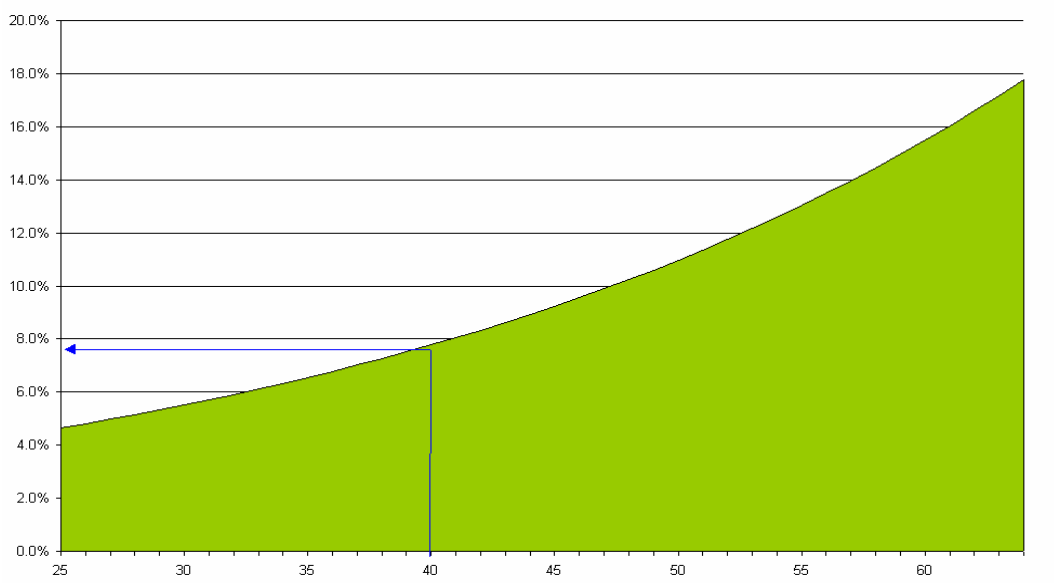
How much does it cost to maintain a decent standard of living in retirement? The answer clearly depends on the standard of living enjoyed during working life, longevity post-retirement, and the return achieved on any savings put by. By way of illustration to enable us to get a handle on the magnitude of the sums involves, let us make some assumptions – see Box I.

Box I: Assumptions for a Funding Plan

Target Retirement Date	65th birthday
Target Pension per annum	Half of average yearly earnings, the average taken over the full working lifetime (additional to State Pension)
Started Working Life	25th birthday
Expected Time of Death	85th birthday
Long-term Real Rate of Return	3½% p.a.

On the basis of the assumptions above, a reasonable saving or funding plan would be to invest the percentages of salary each working year as shown in Graph 2.

Graph 2: Saving Rate as % of Salary at each Age, 25-64, (on standard assumptions above)



So a person aged 40 years should save 7.8% of salary in that year. This sum, invested at 3½% above inflation over the next 45 years odd, will generate enough money to pay a pension of 1/80 of the salary earned in that year from retirement until death. This small bit of pension, when added to the other small bits of pension generated following the saving rate indicated on the graph for each of the other 39 working years, will produce a total pension of 40/80 – or half – of the lifetime average earnings indexed in line with inflation.

The saving plan pictured in Graph 2 is a particularly simple and natural plan. It funds for the estimated cost of the pension accruing in a particular year out of the earnings for that year. This gives a gently rising savings rate with age (as a percentage of salary), as the earlier contributions

grow more as the assumed real rate of investment return of 3½% per annum acts longer. This rising savings rate might suit the expenditure pattern of many – being relatively low in those years when buying a house and raising a family and higher in the later years when the mortgage is repaid and the family raised. Other saving plans are, of course, possible and might be preferable. To illustrate the choice of such plans, we give another example below.

As an alternative savings plan, assume that provision for retirement is to commence at age 40. Retirement age is set again at 65 years, and, as before, we assume that the pension drawdown will be over a period of 20 years. The saver wants to provide half of the salary received in the final working year as a pension, supplementary to the State pension. Further, the saver wants to set aside a level percentage of salary between their 40th birthday and retirement. How much should be set-aside in each year?

This plan differs in some important respects from that proposed earlier. The pension is likely to be higher as it is linked to wages in the final year not career average wages indexed with inflation. Wages have tended to grow somewhat ahead of inflation – perhaps by 1½% per annum over the long term (see Whelan (2002a)). This entails that the long-term rate of return above wage escalation falls to about 2%, a material change from the earlier 3½% rate assumed as compounding is over decades. As before, the pension is assumed to increase in line with inflation when in payment (as, after all, the aim is to provide a decent standard of living in retirement). To recapitulate, the key assumptions underlying this alternative saving plan are summarised below:

Box II: Alternative Assumption Set

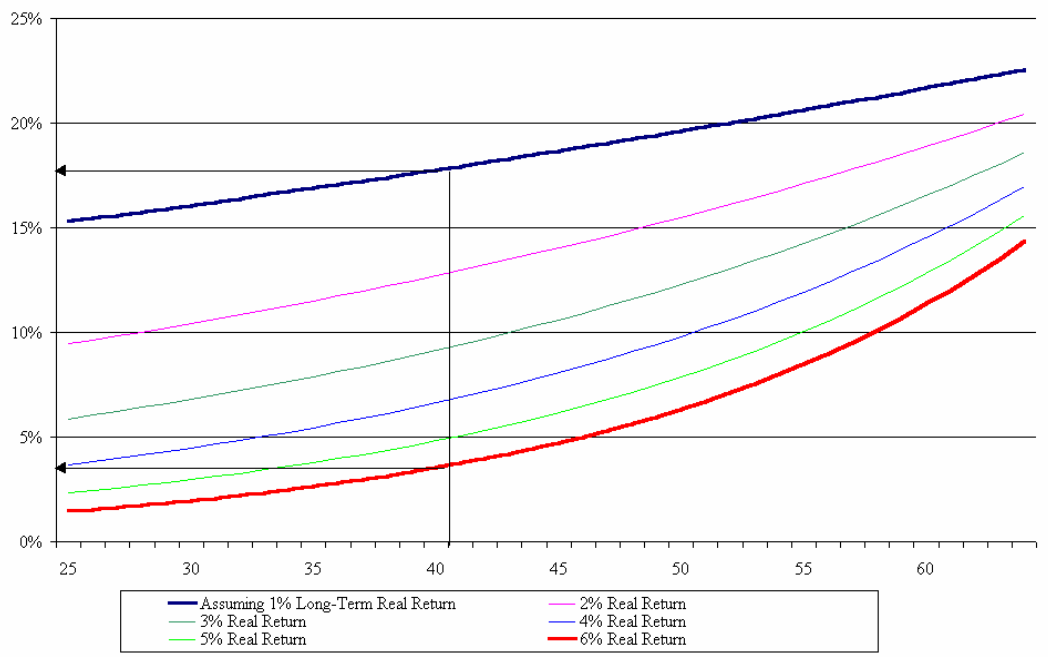
Target Retirement Date	65th birthday
Target Pension per annum	Half of final year earnings
Starting Saving	40th birthday
Expected Age at Death	85th birthday
Long-term Real Rate of Return	3½% p.a.
Long-term Rate of Return above Wage Escalation:	2% p.a.

Again, it is an exercise in compound interest to solve for the required level contribution rate of salary. Under the above assumption, the contribution rate from age 40 to 65 is 22% of salary. This higher rate primarily reflects the higher pension (about a third higher under this alternative plan) and the shorter saving period (reduced from 40 years to 25). Of course, this contribution rate will need be reviewed and adjusted in the future to keep the financial forecast assumed in the plan in line with the emerging experience.

Notice how most of the assumptions in Boxes I and II above are either already known or under the control of the pension saver – when to start saving, the pace of saving, the retirement date, and the target pension. However, two key factors in the saving plans are not determined by the pension-saver – his or her longevity post-retirement and the assumed rate of return on investments made – and each of these factors are material to the ultimate pension. If either or both of these factors can be brought under better control then the risk to be pension saver will be materially reduced. (A key recommendation later in this report is to reduce these very considerable risks.) We treat here the more material of these two risks, the long-term investment return, to get a feel for its magnitude.

We explore how sensitive the saving scheme treated earlier is to the assumed long-term interest rate. All other assumptions in Box I are held constant aside from the real interest rate and the funding rate corresponding to a range of real returns is graphed below.

Graph 3: Saving Rate as % of Salary at each Age, 25-64, at Varying Assumed Real Returns, See Box I.



The graph highlights that the savings rate in any year is highly dependent on the assumed real rate of return. If the assumed rate of return is 1% (i.e. 2½% per annum below our standard assumption of 3½%) then the saving rate for the 40 year old increases by ten percentage points (from 7.8% to 17.8%). Alternatively, if the savings rate is 6% (2½% above our standard assumed

rate) then the required saving rate for the 40 year old falls to 3½% of salary. We conclude that the saving plan is critically dependent on the assumed rate of return.

It simply is not possible to forecast the rate of return on investments with anything like the certainty demanded by the pension saver. Accordingly the ultimate cost of the pension cannot be known at the outset – it can only be guessed. The illustrations above show what the costs are under reasonable scenarios. A decent pension in retirement costs of the order of one-quarter of salary if saving commences at age 40 years.

Savings plans targeting a salary-related pension (whether private or occupational) have regular reviews so that when the actual experience (including investment return, salary escalation and inflation) differs from that assumed, the savings plan can be tweaked back in the right direction. Saving for a distant pension is like steering a large ship towards a distant port. If it goes off course after a few miles then only a small change in its course is necessary to home in on its distant target again. As the port is approached, the bearing is checked more frequently to ensure no large swerve is needed. However, at retirement, the pensioner having provided for their own pension is exposed to investment and longevity risk: they are completely adrift.

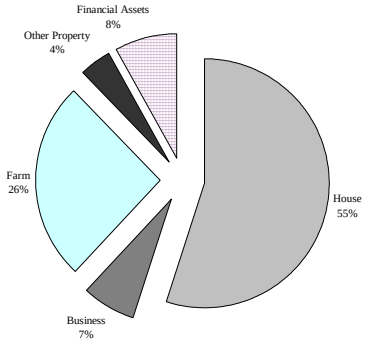
Irish Pension System at the Start of the 21st Century

Pension Coverage in Ireland

Almost all workers in Ireland are covered by the State pension contributory scheme. In addition, many provide for additional pension through occupational pension schemes or private savings.

Private savings can, of course, take many forms from bank or building society accounts to acquiring a house, a business, or a portfolio of stocks and shares or other financial assets. A detailed, if now dated, survey of the financial wealth of Irish households excluding pension entitlements was conducted by the Economic and Social Research Institute (ESRI) in 1987 (Honohan & Nolan (1993)). The graph below summarises the distribution of total tangible wealth when the equity in the house (house value less outstanding mortgage), wealth in farmland and other assets are taken into account. Irish investors are particularly keen on property – with 85% of their net wealth invested in their house, farm, or other property investments.

Graph 4: Average Distribution of Irish Tangible Household Wealth in 1987, excluding Pension Entitlements



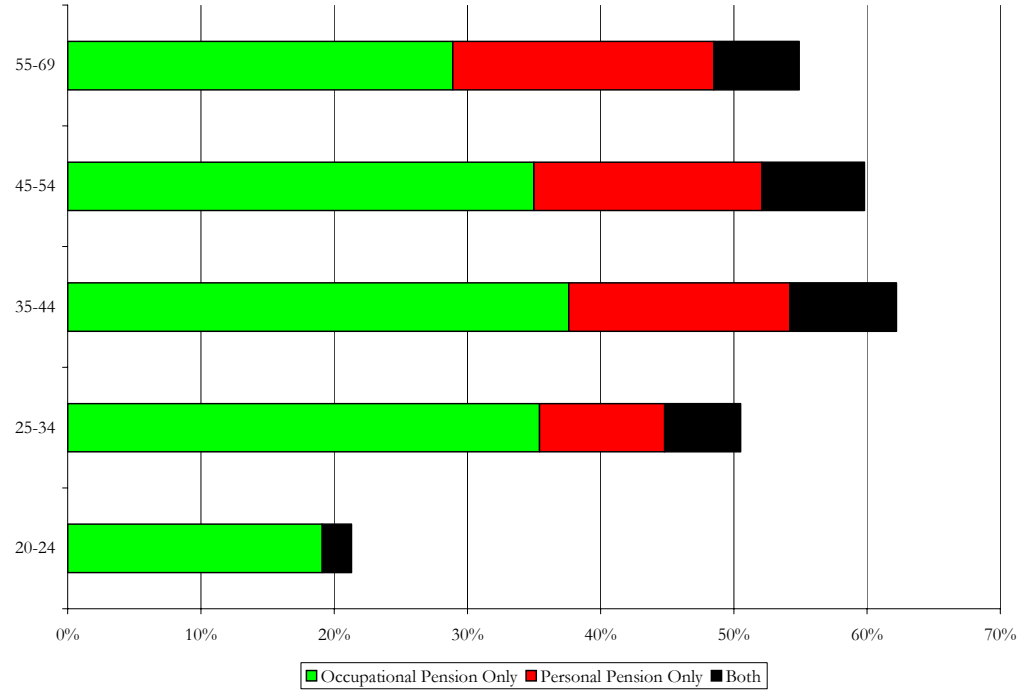
Source: Honohan & Nolan (1993). Above is based on data in Table 7.1.

These assets should, of course, be taken into account when assessing adequacy of pension savings and when comparing the level of pension provision in Ireland with other economies. In particular, it should be noted that Ireland has the second highest proportion of owner-occupiers in the world at 80% (second only to New Zealand).[12]

If we exclude such general provident savings and restrict our definition of pension coverage to strictly pension-denominated savings then the Central Statistics Office (CSO) publish relevant statistics, the most recent survey relating to the first quarter of 2004. CSO (2004a) reports that

39% of those in employment are members of occupational pension schemes and a further 13% are making individual private provision through pension vehicles. Total coverage is therefore just 52%, and this coverage figure increases marginally to 59% if restricted to those aged over 30 years. The graph below breaks down the overall coverage by age group.

Graph 5: Pension Coverage in Ireland, Start 2004, by Age and Coverage Type



Source: Based on data in CSO (2004a).

We note that there is a tendency for personal pension provision to show a slight increase with age up to the highest age group (where such coverage is just over one-fifth) but overall coverage percentages do not increase with increasing age.

Most of those making advanced provision for retirement are arguably not doing so voluntarily. Of the 39% of workers covered by occupational pension schemes, one-third are members of public sector pension schemes, and the remainder are divided equally between private defined benefit occupational schemes and the newer private defined contribution schemes (Pensions Board (2004)). Membership of these schemes is generally compulsory and, where voluntary, the very significant employer and State subsidies give such value for money in comparison with members' subscriptions that they may be regarded as essentially compulsory.

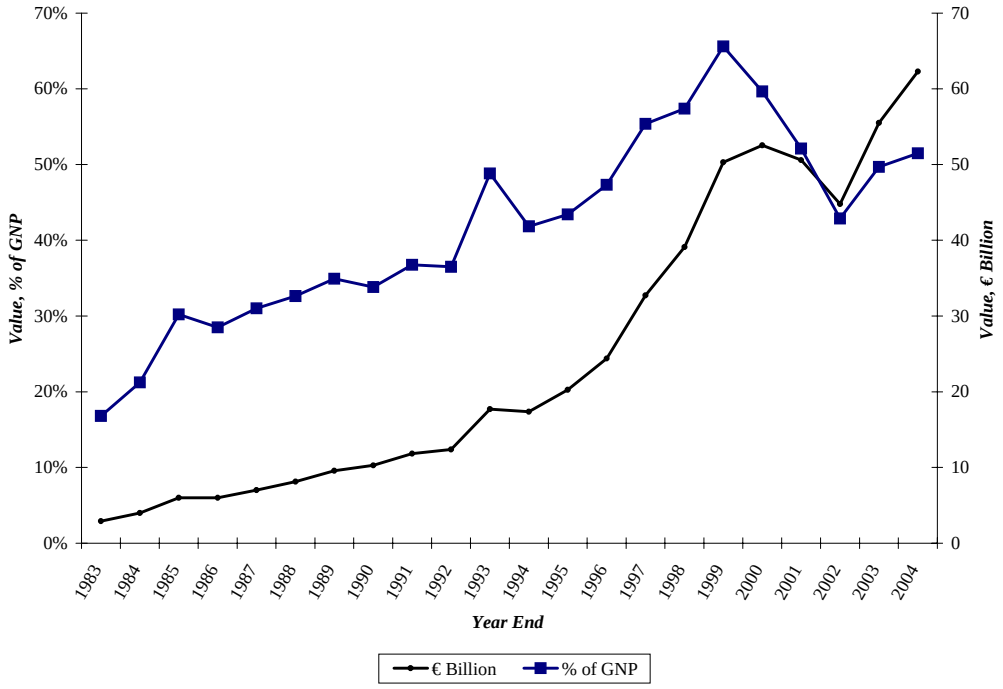
As noted earlier, aside from the new regulatory regime for occupational pensions created by the Pensions Act 1990 and it amendments, the last major structural reform to the Irish pension

system occurred in the early 1970s. The Department of Welfare (1976) highlighted the patchy coverage of workers by private pension funds as a key weakness of the system thirty-odd years ago and this feature has remained changed. In fact, coverage of workers in occupational schemes has fallen back somewhat, reflecting the decline in the proportion in the public service, so that from 45% of workers (79% of public service workers and 31% of private sector workers) covered by occupational schemes back in the mid-1970s, now coverage has fallen to 39% of workers. Even in terms of absolute numbers, there has been little change over the three decades in the coverage of the defined benefit scheme: there are 250,000 members of public sector defined benefit schemes today[13] as against 193,000 in the mid-1970s; there are 231,000 members of defined benefits schemes in the private sector today as opposed to about 183,000 in the mid 1970s.[14] It seems that almost the entire increase in coverage is due to defined contribution schemes, now with 241,000 members from essentially nil thirty years ago. There are widespread concerns of the adequacy of the benefits that will be provided by these new defined contribution schemes, given their relatively modest levels of contribution compared with existing defined benefit plans.[15] Further, members of defined contribution schemes bear all the investment and longevity risks outlined earlier.

There is nothing unusual in the Irish experience: other countries that have adopted a similar pension system of basic flat-rate state pensions augmented by voluntary provision report similar private coverage, and even lower where the state benefits are more generous.[16] The Pensions Board has attempted to stimulate higher private provision, especially through the Personal Retirement Savings Account (PRSA) initiative introduced in mid 2003, but the early signs are that this will have just a marginal impact (Indecon (2005)).

So the growth of defined contribution scheme has been the key feature behind maintaining occupational pension coverage over the last few decades. However, the trend on adequacy and security of coverage from the traditional defined benefit scheme has been very significant - the adequacy and security improving with the maturing of such schemes, from the preserved benefits paid to early leavers under the Pensions Act 1990 and its amendments (see later), and from the funding standard imposed on such schemes (see later). The graph below, showing the extraordinary growth in pension assets (mostly assets of defined benefit schemes) that can be used as a rough proxy for the increasing adequacy of pensions from defined benefit schemes.

Graph 6: Growth in the Value of Assets of Irish Pension Funds, 1983-2004



Source: IAPF Annual Asset Surveys (see Whelan (2002) for a full discussion)

So, Irish private sector pensions have been in an accumulation phase over the last few decades. This increased provision can be expected to increase, and increase significantly, the proportion that private pensions will play in retirement income for the next generation of retirees. The State also has a direct financial interest in the increased provision represented by the growth of pension assets, as the pensions savings above represent a deferment of income taxation – the State is itself going to participate in future pension payments from the income tax revenue they generate.

Any change to pensions policy, other than to the pay-as-you-go scheme, takes decades to mature. Pensions-in-payment to current retirees reflect pensions policy during their working lifetime. So, for instance, the pension of an 85 year old today is the end result of pension policies in place during their working lifetime – say from age 20 (that is the calendar year 1940) to age say 65 (corresponding to the calendar year 1985). It follows that snapshot of the current income of the retired in Ireland, though important, is subject to updating by developments over the few decades that have yet to feed through. This important qualification should be borne in mind when considering the recent survey of the income of current retired people in Ireland summarised below.

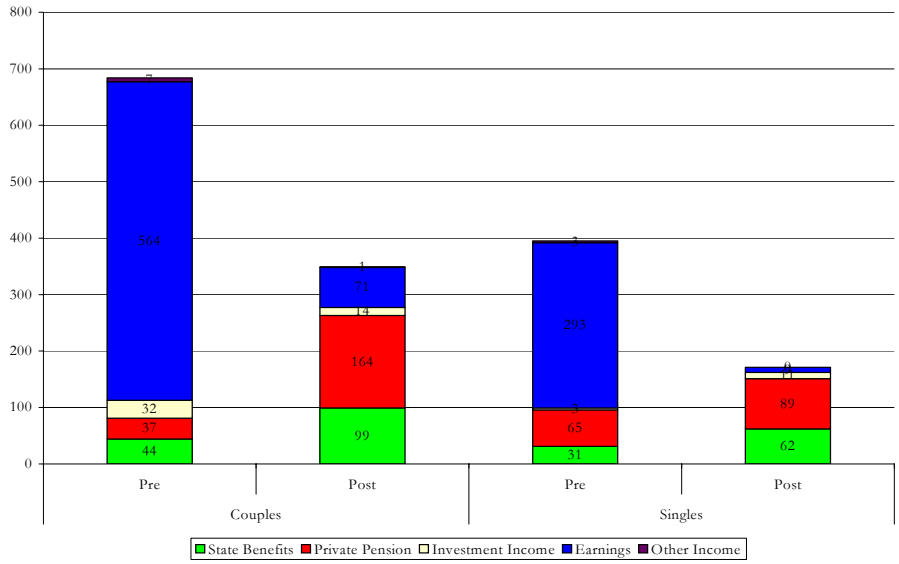
Adequacy of Pension Provision in Ireland

The Pensions Board (1998) set a measure of adequacy of gross retirement income from all sources as half gross pre-retirement income, subject to a minimum of one-third the average industrial earnings (p. 91). (It is somewhat odd to base adequacy of income on gross measures rather than net measures in a progressive tax system, as clearly it is after tax income that directly affects purchasing power.) While the CSO now surveys pension coverage, it is still problematic to get reliable information on pension adequacy. Hughes & Watson (2005) is the most up-to-date and comprehensive study of pension adequacy in Ireland but, as the authors readily admit, the restricted database has frustrated their modelling of the Irish pension system so that "we can address only a limited number of questions relating to current incomes" and "only speculate about how some aspects of the system may evolve" (p. 13). This is a serious qualification and demands that the results be updated in the light of the considerable growth of pensions assets – signs of a maturation of the industry – highlighted in the previous graph.

Their findings are, in brief:

- That income in the year following retirement from the main occupation averaged 51% for couples and 43% for single persons. The breakdown of the gross income in the year pre and post retirement is shown graphically below:

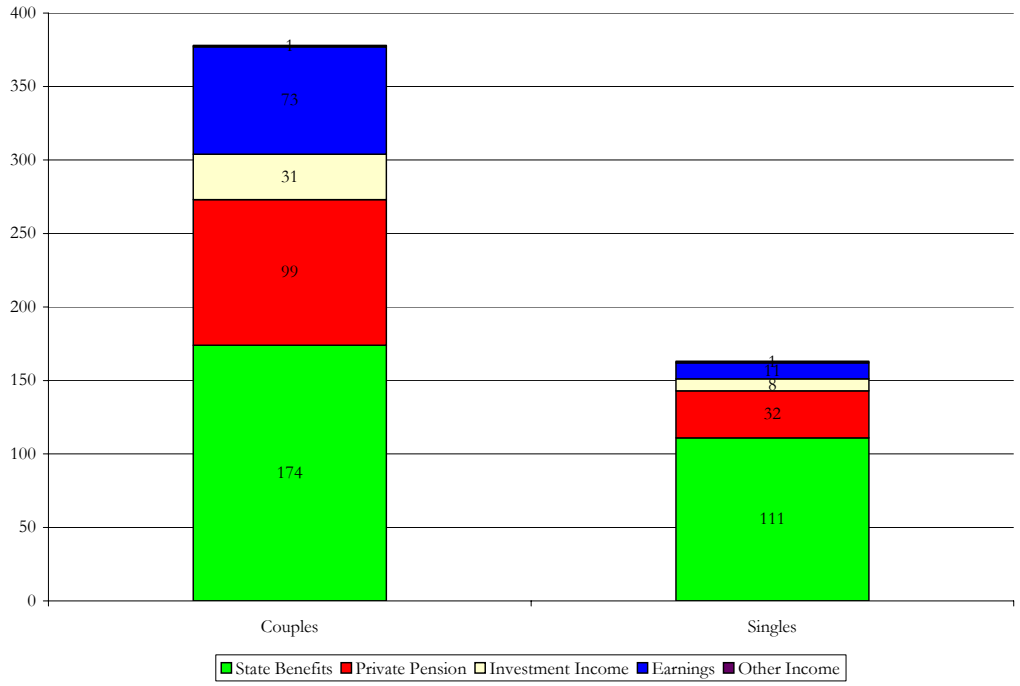
Graph 6: Comparison of Income, by Source and Amount, in the Year Before and After Retirement, 1994-2000.



Source: Based on data from Table 5.2 of Hughes & Watson (2005). Note that the above is based on the relatively small sample of 260 who retired from their main occupation between 1994 and 2000 captured in the Living in Ireland Survey.

- That the average income of pensioner couples in 2000 was 87% of the then average gross industrial wage (or, equivalently, €378 per week). For single pensioners, the ratio was 37% of the average gross industrial wage (or €162 per week). The breakdown of the gross retirement income by source is given below:

Graph 7: Breakdown of Income of Retired Couples in Year 2000, by Source and Amount



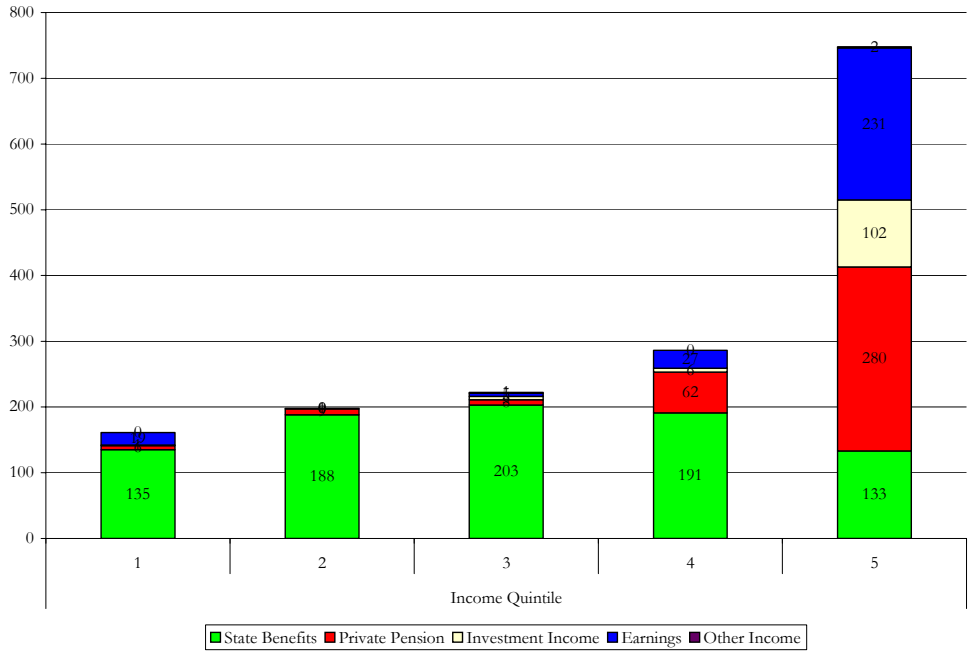
Source: Data from Table 3.2 in Hughes & Watson (2005). This data set comprises some 1,360 individuals aged over age 65 years.

- When retirement income was divided by age of the retiree, there was a pronounced downward trend in overall income with increasing age. Income fell by about one-third as one moved from those under age 70 years to those aged over 75 years. The main reason for the fall was the drop in supplemental earnings but there was also a noticeable decline in the quantum of private pensions. This is probably due to a mix of a cohort effect (those over age 75 received on average lower private pensions due to the relatively immaturity of occupational schemes and the previous lack of preservation of benefits) and the quality of the pension benefit (which might not increase or increase at a rate lower than wages).

- The average income of single female pensioners is 86% of their single male equivalent, due primarily to a lower occupational pension.

- The distribution of incomes in retirement is quite skewed, with State benefits making up the vast majority of the income for most. The graph below breaks down the sources of income for retired couples, sub-divided by their total income, from the relatively poorest fifth (quintile 1) to the relatively richest fifth (quintile 5). A graph for single pensioners would show similar proportions but at lower aggregate levels.

Graph 8: Income of Retired Couples, by Source and Amount, in Income Quintiles



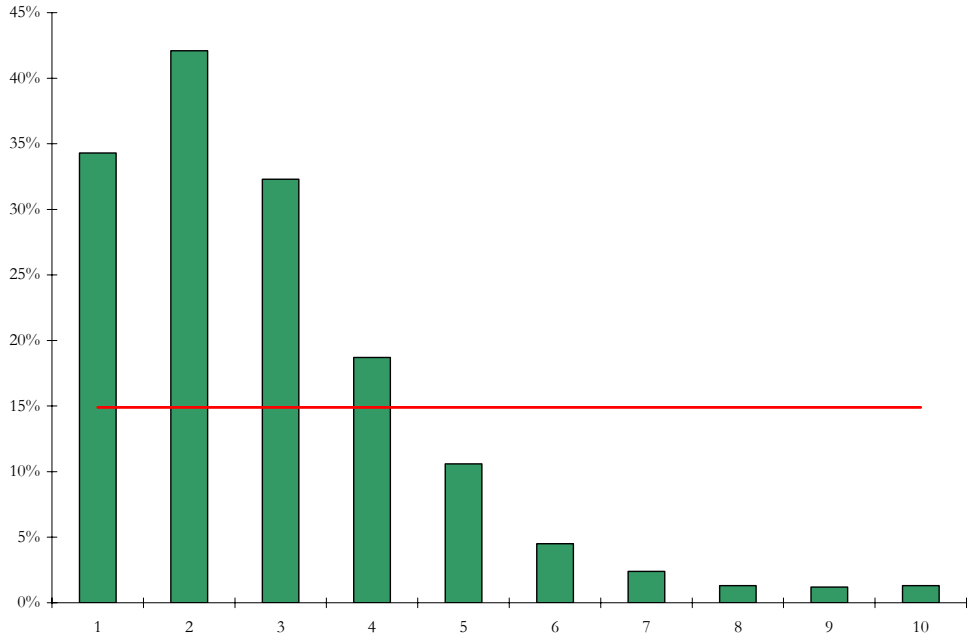
Source: Data from Table 4.2 in Hughes & Watson (2005).

This snapshot of how the Irish pension system currently delivers to the aged is, of course, subject the usual caveats of working with such a relatively small sample. Nevertheless it is the most comprehensive we have. It shows that the benefits paid by the State make up, by a considerable margin, the majority of income for the vast majority of the retired. For the wealthiest two-fifths of the retired, we see other sources of income having a significant effect. Having an occupational pension of even relatively modest size is sufficient to rank the pensioner amongst the wealthiest. As pension coverage has not significantly changed over the last three decades but adequacy appears to have markedly improved (by growth of assets), we can forecast that the income divide in retirement between those that have an occupational pension and those that do not will widen further in the future. Younger pensioners tend to supplement retirement income through wages and this might be expected to continue with improving health in early old age. The poorest subgroups are single pensioners (especially single female pensioners) and there is a marked

tendency to become relatively poorer as one ages. These issues have perhaps not be addressed by pension reform over the last few decades.

The Household Budget Survey 1999-2000 (CSO (2001)) allows the simplistic comparison of income levels of retired households with other households in Ireland. The graph below shows that retired households, which represent 14.9% of households in the survey, are disproportionately concentrated in the lower income deciles.

Graph 9: Percentage of Households in Ireland with a Least One Pensioner in each Gross Household Income Decile



Source: Data from CSO (2001), Household Budget Survey 1999-2000, line 40 of Table 2, pp. 36-7. The line on the graph indicates the proportion expected if the distribution of the income of retired households did not differ from other households in Ireland.

There are difficulties with interpreting the significance of the results in the above graph. Households are rather heterogeneous: amongst other differences, they vary in number of members about the overall average of 3.08 persons per household. The size of household is a factor in ranking the income of the household as the average number of persons in a household increases with increasing income (by decile rank[17]). Retired households tend to have just one or two members, so they can be expected to have lower aggregate income from this cause. Such caveats point to the need for caution in interpreting the extent of relative poverty of the aged, but the stark import of the graph above remains true on further analysis: the retired are disproportionately represented in the relatively poorest households. Taking just pensioner couples and comparing their income distribution with that of the general population, shows that

about 80% of such pensioner couples are in the lowest 40% of households by income ranking. There is also a marked pattern where the lower income deciles have the highest age of the 'head of the household'.

The *EU Survey on Income and Living Conditions* (CSO (2005)) contrasts the relative poverty of the aged with other relatively disadvantaged groups in Irish society. It reports that those over 65 are less likely to be in 'consistent poverty' than any other age (with the unemployed, the ill or disabled, and children under the age of 16 being over-represented in this category) but that they are significantly over-represented in the 'at-risk-of-poverty' classification.

The snapshot above suggests that two types of intervention to the current and future functioning the Irish pension system might be considered. First, the level of retirement income could be raised. The most immediate way of achieving this is simply to increase the flat rate pension paid by the State (whether the Retirement Pension, the Contributory or the Non-Contributory Old Age Pension). Second, supplemental income might be targeted at those subgroups identified as relatively poor – the older, the single, and the female pensioners. Measures here might include enhancing the age supplement, increasing the level of the single pension, and revisiting the eligibility criteria (especially for females). One must recall the arguments for originally adopting the flat rate State pension scheme in this respect:[18]

> "It is held too that those who have worked for a lifetime have a claim to something more than social charity, and however this argument may be regarded as to men, it has a certain force with respect to women, who have often spent lives of the most active and invaluable citizenship without ever having the smallest opportunity for saving."
> Charles Booth, *Enumeration and Classification of Paupers, and State Pensions for the Aged.* Journal of the Royal Statistical Society, 54, 4 (Dec 1891), 600-643. Quote is from p 633.

Finally, the analysis of the operation of the current State pension system in Ireland by Hughes & Watson (2005) suggests that it might not take much to change the existing, somewhat complicated State pension system into a simpler universal State pension system. That is, the different eligibility requirements for the different State schemes could be drastically simplified: simply everyone over the age of 65 or 66, subject only to a residency condition, could be entitled to a State pension. Such simplification would help in pension planning. The Retirement Pension, the Contributory or the Non-Contributory Old Age Pension would be abolished under this plan to be replaced by a simple universal Irish State pension. Indeed, for most of the twentieth century, Ireland's State pension system has been very close to a universal system – as coverage, despite means and other eligibility criteria, was originally "117 per-cent of the number of seventy

and over, less paupers; and this assumes that not a single person of seventy and over in Ireland has an income of £31 per annum".[19]

Outlook for the Current Pension System in the 21st Century

Threat to the Defined Benefit Pension Scheme

> He went on to descant on the expediency of retiring at a certain time of life (how my heart panted!) and asking me a few questions as to the amount of my own property, of which I have a little, ended with a proposal, to which his three partners nodded a grave assent, that I should accept from the house, which I had served so well, a pension for life to the amount of two-thirds of my accustomed salary - a magnificent offer!
>
> Charles Lamb, *The Superannuated Man* (1825)

Firms had, as Charles Lamb testifies, paid pensions to long serving employees long before now. Pension provision was simply the firm assuming a duty of care to the aged employee.

The Irish State took a broad interest in the provision of occupational pensions by the private sector from its outset under the Finance Act 1921. In return for tax concessions on contributions and investment income, the Finance Act 1921 required occupational pension schemes to be constituted by trust deed and to provide benefits approved by the State. Thus began one of the more important public-private partnerships in Ireland: in return for tax concessions the State could regulate the activities of private occupational pension funds. The Finance Act 1972 was a milestone establishing the modern taxation regime of occupational pensions.

A landmark in the regulation of occupational pension schemes was the Pensions Act 1990 which, *inter alia*, reduced considerably the flexibly that employers and scheme trustees could exercise in the benefits paid to leavers before retirement age and also reduced the flexibility of the funding arrangements allowed to meet the promised benefits. Both of these provisions improved considerably the benefits and security of the benefits for many members. The benefits paid to early leavers before the Act were often less than generous as the firm's duty of care often did not extend to these individuals. Anthony Trollope, another English author, fell foul of previous inflexibility of pension promises, dryly observing in his autobiography when he left the Post Office at the age if 52 with 33 years of service and no pension that:

> "The rule of the service in regard to pensions is very just [precise]. A man shall serve till he is sixty before he is entitled to a pension…"[20]
>
> Anthony Trollope

The regulations introduced in Ireland by the Pensions Act 1990 follow a pattern evident in many economies over the last few decades designed to give considerable protection to the individual when dealing with financially significant, complex contracts, like pensions. But the combination of the

generally increased benefits to be paid to early leavers and the funding requirement is proving onerous to sponsors of defined benefit schemes, which, in turn, is jeopardising the continuance of such schemes.

The final salary defined benefit scheme, the backbone of occupational pension provision in Ireland over the twentieth century, is currently under severe financial strain due to a combination of unanticipated events – life expectancy increasing faster than expected, long term interest rates falling to a fifty year low coupled with relatively poor equity returns, and, in Ireland, unusually large salary escalation. In previous times (e.g., the 1970s), the defined benefit scheme overcame such financial crises but their flexibility of response has been compromised by the Pensions Act 1990 (and its amendments) and accounting rules.

The current regulatory regime for occupational pension funds demands that defined benefit plans demonstrate that the assets of the scheme are sufficient at all times to meet the termination liabilities of the scheme (these latter liabilities defined under the regulations and representing a significant percentage of the on-going liabilities). These regulations emphasise short-term mismatch risks which, in turn, incentivise a move to assets that most closely match the termination liabilities. This entails a move of Irish pension assets anyway from equities towards bonds as, on arguments developed in Whelan (2003) and Whelan (2004), a bond portfolio most closely matches the liability.

The move towards bonds can be expected to increase the long term costs of operating defined benefit plans as, if history is a guide, bonds have considerably lagged the performance of equities in the long term (see, for instance, Whelan (2002a)). The consequence is regulation designed to protect pension members has increased the long-term costs of running these schemes, by an unquantifiable but material amount. As the decision to establish, keep open to new employees, or even continue the operation of such schemes is essentially that of the sponsoring employer, we can expect the increased cost burden and its lack of transparency to discourage new defined benefit schemes, close existing ones to new employees and, perhaps, even the wind-up and conversion of existing schemes to the defined contribution type.

The underlying rationale behind the regulation of occupational pension schemes is protection of the members and other beneficiaries. As currently implemented, it demands a price be put on the pension promise and attempts to ensure that the trust maintains assets to at least that value, in good times and bad. Regulation is not attempting to ascertain whether the sponsoring employer is making reasonable and fair provision for the promise but demanding that the employer continues to carry the risk that the trust's assets track the changing price the market puts on the

future benefits. This entails a level of guarantee that cannot reasonably be given by a financial company expert in managing such risks, let alone an ordinary firm. Arguably, the level of security now demanded behind the pension promise is so high that it is unrealistic to expect new schemes to provide such benefits in the future – leaving pension provision up to the individual or the State.

We have reached a watershed in the provision of occupational pensions in Ireland. Few defined benefit schemes are now being established, there is a marked trend to close existing schemes to new entrants, and this trend can reasonably be extrapolated, judging from the more advanced experience in the UK and elsewhere, even when current deficits return to surpluses. Indeed, if the level of flat rate State pension were to increase, as earlier outlined for consideration, then this may provide some relief from the solvency strains currently experienced (as many such schemes are integrated with the State scheme) – but, at best, only temporary relief. It does not go to the heart of the matter. It seems that companies sponsoring defined benefit schemes are rethinking the cost-benefit trade-off, with taxation concessions not sufficient to induce them to accept the liabilities created. In short, the employer-sponsored defined benefit schemes (outside those where the State is the employer[21]) cannot be relied upon to continue to provide anywhere near the existing coverage of Irish workers in the 21st century.

Accordingly, a priority in pension provision in Ireland must be to resolve the regulatory discouragement of the defined benefit scheme. A regulatory regime that focuses more on whether the sponsoring employer is making reasonable and fair provision for the pension promise, rather than interpreting the promise as a guarantee, would help mitigate the crisis. In the final section we make a proposal where 'fair and reasonable' provision is equated with the expected average cost of the pension benefit over the long term. We go further and suggest that the State underwrite the risk of short-term deviations from the long-term costs.

Hughes (2005) argues that the cost of the taxation concessions granted to private and occupational pension provision by the State is high – of the same order as that of the contributory State pensions[22] – and the manner of delivery creates an inequitable regressive tax subsidy. Hughes (2000) argues that the taxation concessions may not increase the level of private provision for pensions, but simply incentivises savers to use tax-efficient pension products rather than other, comparatively less tax efficient, savings media. The extent to which this latter observation is significant in Ireland is debatable. As argued earlier, most occupational pension provision in Ireland has been effectively compulsory at the individual level so pension planning for most has been divorced from taxation planning. However, this is unlikely to be the case in the future, with individuals selecting whether to have their own personal pension, or, as a member of

a defined contribution scheme, having control over the level of contribution. This means, for the future, pension policy must be mindful of the possible misuse of taxation concession on pensions to enhance non-pension savings. The pension system and the taxation regime are now intimately linked in Ireland and it is difficult now to achieve a separation without lasting damage. New Zealand's recent reform of its pension and taxation regime provides a salutary example, where private pension provision effectively collapsed following the change.

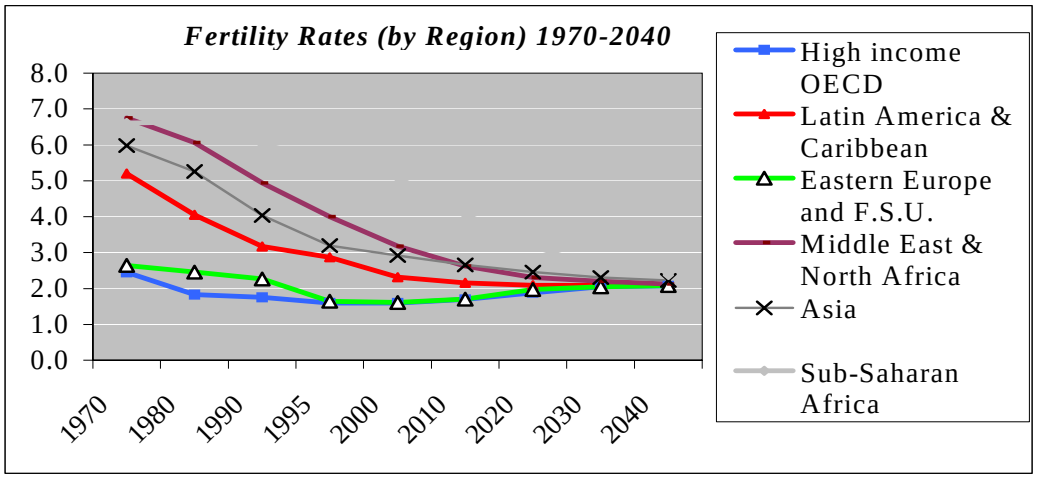
Pensions and taxation are both separately perceived as complex, with individuals often requiring expensive professional advice on each. Using taxation reliefs to encourage individuals to save for retirement cannot be expected to prove as popular as more direct means of subsidy. This is all the more so for the potential pension saver of modest means where the hurdle of specialised knowledge required is particularly off-putting. The recent initiative to encourage savings in Ireland, the Special Savings and Investment Accounts (SSIAs), offer an alternative template where direct subsidy has been successfully used; this approach if adopted in pensions can be expected to widen the appeal of pensions-based savings.

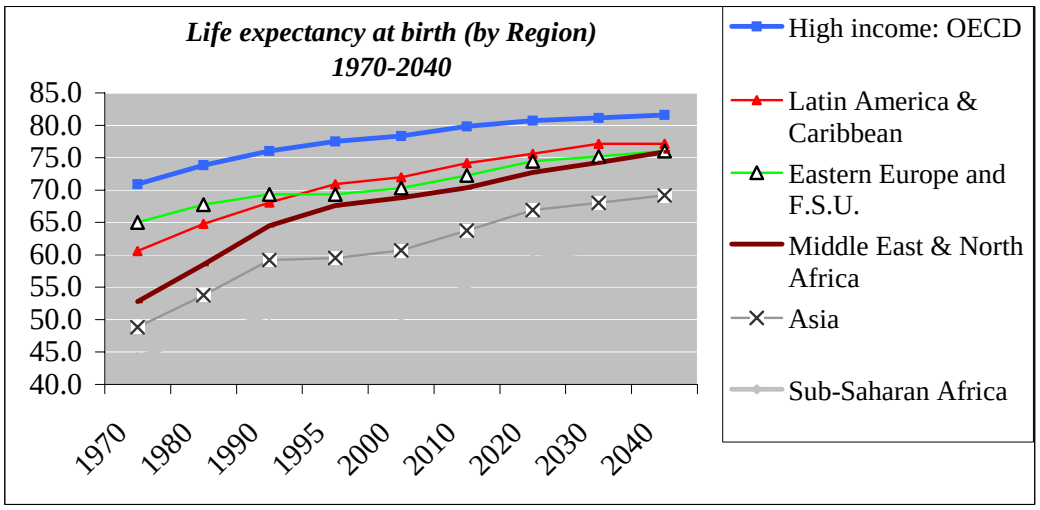
Affordability of State Pensions in the Future – International Context

The World Bank report issued in 1994, *Averting the Old Age Pension Crisis*, provided a focus to growing concerns that longer life expectancies, coupled with lower fertility rates around much of the world, was creating increasing strains in pay-as-you-go national pension systems, enforcing drastic reform on many. Debate on alternative pensions systems tends to follow the three-pronged (or three pillar) structure outlined in that report: pillar 1 is essentially our current State scheme; pillar 2 is compulsory savings privately managed; pillar 3 is voluntary occupational schemes and private saving. The report advocated that each economy should develop all three pillars, the extent depending on the individual circumstances of the country. World Bank (2005) revisited the model, taking account of criticisms and incorporating lessons learned from its involvement in pension reform in more than 80 countries. The new framework retains the original three pillars but buttresses them somewhat and explicitly takes into account the traditional informal supports to the elderly. Notably, World Bank (2005) has qualified its advice in many respects: stressing the dependency of the ultimate effective system on the special conditions of the economy (the political economy and inherited pension system), tempering its controversial advocacy of pillar 2 and pre-funding generally, and, in short, showing a greater tolerance for diversity. In particular, pillar 2 (and pre-funding generally) is less prioritised, its complete absence can be envisaged in an effective system, and it is now advanced as a benchmark against which alternative systems can be evaluated.

Ageing population structures are a global phenomenon but the timing is more pressing in Japan and Europe (especially Italy). The problem arises from fertility rates either falling or remaining low throughout the world coupled with an elongation of life expectancies. The graphs below highlight the dramatic shift in these rates over the last three decades and projects trends over the next half-century.

Graph 10: Trends on Fertility Rates and Life Expectancies, Actual and Projected, 1970-2040





Source: From Palacios & Pallares-Miralles (2000).

The response of governments to the increasing financial burden is muted so far. Most developed countries are tinkering with their pay-as-you-go defined benefit state schemes to reduce the burden but, as yet, such changes are far too modest to be other than token. The remedy is politically unpopular and hence the temptation is to defer reform for a later administration.

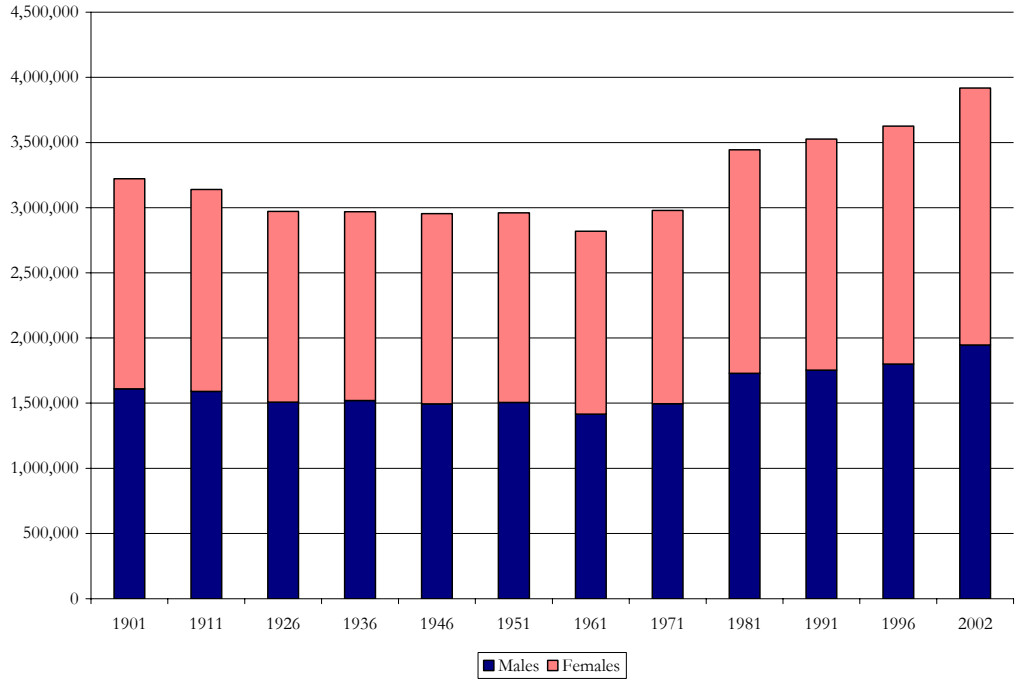
Some countries, such as Australia, Hong Kong, Poland, and many Latin American economies, are moving toward fully funded defined contribution compulsory state-wide schemes (pillar 2

schemes).[23] Indeed, over the two decades since Chile first introduced such a mandatory defined contribution scheme, now there is a trend to establish such schemes with, in Europe, Switzerland and the Netherlands introducing such schemes in 1985, the UK partially in 1988, Denmark in 1993, and Sweden in 1999 (Palacios & Pallares-Miralles (2000)). It is early days to review such schemes as no significant benefits have yet been paid but the experiences have been mixed. Littlewood (1998), for instance, points out that there is growing popular opposition to compulsory savings in Chile with over one-quarter of contributors being more than 13 months behind in compulsory savings and the regulator has legal cases pending against 150,000 non-conforming employers.

Affordability of State Pensions in the Future – Irish Context

There are some demographic features almost unique to Ireland. One of the most obvious is that there was almost no growth in the total population over the twentieth century, as captured in the graph below.

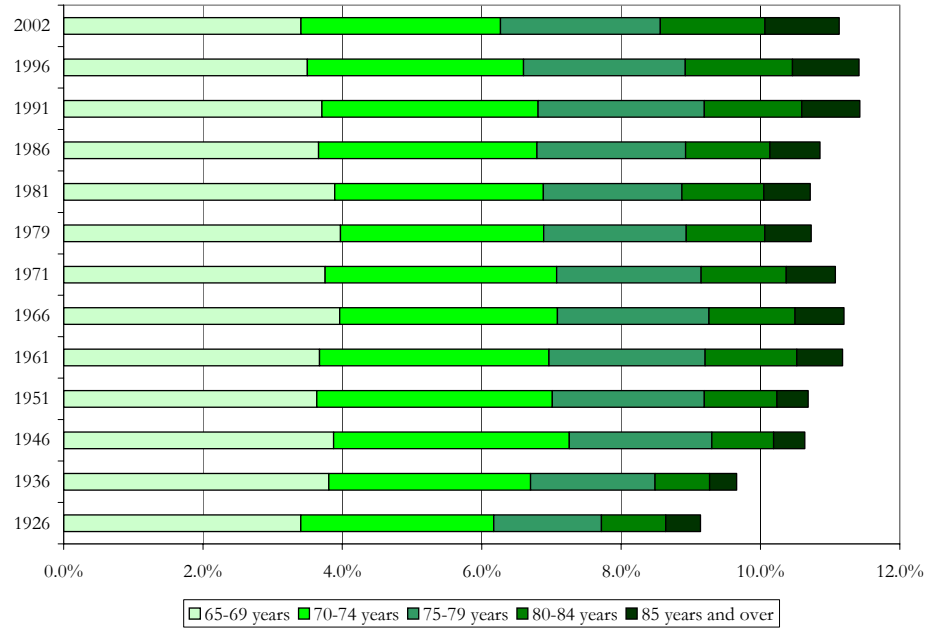
Graph 11: Population of Ireland, 1901 to 2002, divided by gender.



Source: CSO.

Not only was the total population static, the proportion elderly was also broadly stable since Irish independence, as the graph below illustrates.

Graph 12: Percentage of Irish Population above Age 65, 1926-2002, divided by age

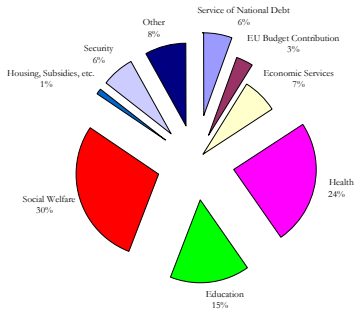


Source: CSO.

These unique demographic features have ensured that Ireland has not fallen into the common temptation of over-promising State pensions when the underlying costs were masked by population growth (or, more accurately, growth in workforce). If population growth can be relied upon then, as the Nobel-prize-winning economist Paul Samuelson noted as far back in 1967, it is possible to be more generous in a pay-as-you-go scheme: "the beauty of social insurance is that it is actuarially unsound. Everyone who reaches retirement age is given benefit privileges that far exceed anything he has paid in… A growing nation is the greatest Ponzi game ever contrived".[24]

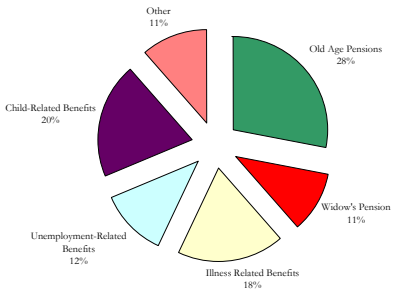
The State pension system currently entails a relatively small transfer of national income within Ireland. The following graphs show that 30% of gross government current expenditure is in the broad area of social welfare, and about 40% of the social welfare budget goes on old age and widows'/widowers' pensions. With gross government current expenditure representing about one-third of Ireland's GNP, this entails that expenditure on State pensions (outside of State-sponsored occupational schemes) is of the order of 4% of GNP.

Graph 13: Estimated Breakdown of Total Gross Government Current Expenditure (€43 billion) for 2005



Source: Department of Finance, 2005.

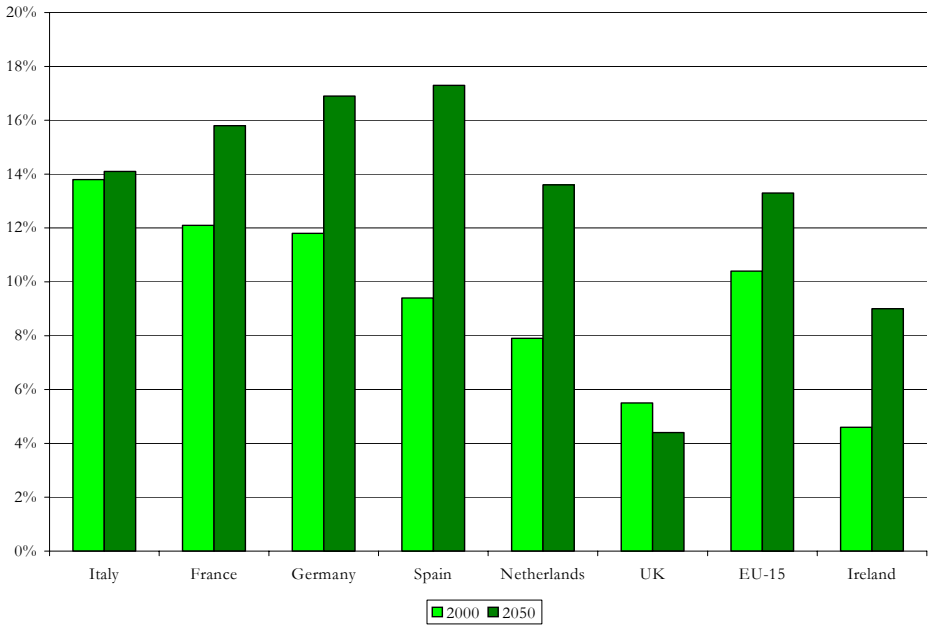
Graph 14: Estimated Breakdown of Expenditure on Social Welfare by Scheme



Source: CSO (2004b). Data from p. 80 relating to the year 2003.

Public expenditure on pensions in Ireland is currently the lowest as a percentage of GDP (or GNP) of the 15 European countries at 4.6% compared to the average of 10.4% (Economic Policy Committee (2001)). If State pensions increase in line with earnings over the next half-century, then Ireland is projected to have the second lowest pension transfer in 2050 (second only to the UK where public pensions are forecast to increase in line with prices). In fact, the projected transfer on pensions in Ireland in 2050 is lower than the average EU transfer *in 2000*.

Graph 15: Expenditure on Public Pension System in Europe, Year 2000 and forecast Year 2050 as a % of GDP (Ireland as % of GNP)



Sources: Economic Policy Committee (2001) as quoted in Hughes & Watson (2005). For Ireland, the assumption is that pensions will increase in line with wages.

The assumption of whether pensions are indexed by prices or wages might, at first sight, appear rather a minor matter but its financial significance is large when the small annual differences (averaging about 1½ to 2% per annum) are compounded over half a century. For instance, a unit now increasing in line with wages will have a value of about 2.5 units in real terms in fifty years' time. Thus, the assumption that the Irish State pension will increase in line with wages is material. Just how material is set out in *The Actuarial Review of the Financial Condition of the Social Insurance Fund* issued by the Department of Social and Family Affairs & Government Actuary's Department (UK) (2002).

The Actuarial Review provides sufficient detail to estimate the financial implications of many different changes to the current social insurance system. For instance, if poverty is deemed a problem now for the aged in Ireland, then the obvious solution is to increase the level of current State pension and index it with inflation. Figures in the report show that the current level of pensions could be more than doubled and inflation-linked (rather than wage-linked) and this would not lead to the forecast cost of State pensions being any higher in 2050. This scenario would take Ireland's expenditure up to be broadly in line with the average EU expenditure on State pensions now and below the projected average in 50 years' time. In particular, the argument that current State pensions cannot be increased now because it will prove unsustainable to provide the future real increases entailed by an earnings-link is spurious and misleading if it leads to the conclusion that poverty of the aged now cannot be relieved because it is unaffordable.

The above illustrates the many choices that can be made within the broad financial constraints imposed by maintaining a sustainable State system. *The Actuarial Review of the Financial Condition of the Social Insurance Fund* provides an overview of the how the finances of the Irish contributory pension scheme might develop over the next fifty years based on different assumptions and allows one to estimate the financial impact of many different scenarios. The key issue is that Ireland has considerable financial elbowroom, compared with other EU economies, to reposition the State pension scheme.

Alternatives to the Current System

Compulsory Savings

As noted throughout this report, few voluntarily save for their pensions. The current pension system in Ireland is one based on compulsion at the individual level: compulsory contributions to the State contributory scheme, compulsory membership of occupational schemes for public sector workers (with the associated wage reduction), and essentially compulsory membership of occupational schemes for some private sector workers (with the associated wage reduction). However, trends in pension provision are showing that the traditional model above appears to be breaking down. The growth in pension provision over the last few decades has been in the defined contribution scheme and independent private provision where, typically, the individual can exercise more control over their level of contribution. However, cover remains patchy and, in the case of defined contribution schemes and private provision, perhaps inadequate.

One obvious solution to the problem presents itself: why not extent the current patchy coverage to 100% by universal compulsion? After all, one notable feature of the current occupational pension system is that those in such compulsory schemes do not campaign for their abolishment and the consequent immediate increase in wages.

Making it mandatory for workers to save for their retirement can be argued on the grounds that:

- it protects workers from their own short-sightedness in not saving for themselves
- it protects society from meeting the needs of those that do not save or do not save enough.

But many saving plans can lead to an adequate pension (as outlined earlier), and the ability of individuals to save at different points in the lifecycle can differ markedly. In any event, if the savings plan is to deliver a pension of, say, half the pre-retirement wage then this entails a considerable percentage of salary (10%-20%) over a considerable span of working life (20-40 years). How can a single mandatory savings scheme operate to be fair to all without becoming confusingly complex? It must cater for those at the lowest income levels, struggling to make ends meet in the present, and to the very richest, with have ample savings already. How can the scheme achieve a balance of interests between the young person starting on a career with a low salary and high borrowings, the couple rearing children and repaying a mortgage, and the older couple with an empty nest and home purchased?

There are four different generic designs for such mandatory savings plans, depending on whether it follows the defined benefit or defined contribution model or whether it is funded in advance or pay-as-you-go.

I. Pay-as-you-go defined benefit
II. Funded defined benefit
III. Unfunded (or notional account) defined contribution
IV. Funded defined contribution.

These are the four stylised options. They may be pictured as the corners of a square. It is possible to have a design that fits anywhere in the square by, say, adopting partial pre-funding or having benefits related to the performance of the markets subject to a guaranteed underpin. We have, of course, extensive experience of the first two in Ireland, no experience of the third option (but can look to, for instance, Sweden, for such a model), and are developing an experience of the final option.

Two main points can be made.

- First, while financing should be secondary to scheme design, they are not decisions that can be taken independently of one another. For instance, if the defined benefit scheme common to public servants is extended to cover all workers in the State, then it is not credible to rely on pay-as-you-go as the principal form of finance. Such financing would put significantly greater financial strain on the social contract (as the transfer payments are so much bigger) and, at the same time, undermine the consensus it currently enjoys, as providing salary-related benefits entails maintaining income differentials throughout life. Quite apart from the issue of sustainability given demographic change, the tacit agreement that the next generation of workers pay for the current generation when they retire can be expected to break-down if this requires workers being taxed to pay pensions considerably greater than their own wages.
- Second, the issue of the scheme design – between defined contribution and defined benefit – is fundamentally about who bears the investment risk: the pensioner or the pension provider. Investment risk, as outline earlier, is a key intractable risk in pension provision and, ideally for society as a whole, should reside with those most able to bear it. The pensioner is clearly least able to bear investment risk and therefore, through some mechanism, it should be shifted to the pension provider (that is, in essence, the rationale underlying the defined benefit scheme design).

One way to affect an extension of compulsion under the defined benefit model is to upgrade the current flat rate State scheme, and this possibility was treated earlier. That is, the flat rate State scheme is improved to offer a larger benefit, with perhaps partial funding to help smooth the cost burden over time. This has all the advantages of the tried-and-tested current system; it allows flexibility in working lives (and can be adapted to, say, the needs of mothers looking after their children and others who adopt economically or socially important but non-remunerative work),

can be financed in many different ways (funded, pay-as-you-go, or a partially funded), and can give an immediate solution to any perceived inadequacies of the present system. Adopting a higher flat rate benefit escalating in line with inflation experienced by the retired[25], financed through general taxation, provides the twin protections demanded – the protection of the individual worker and, by sharing the cost, protection of society. As outlined earlier, the financing of such an enhanced scheme appears sustainable because the indexation has been changed from earnings-linked (addressing relative income differentials) to inflation-linked (addressing adequacy of income). If future generations wish to relieve relative poverty in the aged, then they can, of course, make that decision once they are prepared to finance it – it is simply not realistic that this generation of workers should expect that a future generation provide a higher real pension, as is currently assumed in assessing the sustainability of the current level of the State pension. The argument that current State pensions cannot be increased because it will prove unsustainable to provide the future real increases entailed by the earnings-link is spurious and misleading if it leads to the conclusion that poverty of the aged now cannot be relieved because it is unaffordable. Finally, it may also be opportune to simplify the current State pensions (Retirement, Contributory, and Non-Contributory) to create a universal pension depending only on age and residency.

The key objection to the above plan is that it does not provide a pension linked to income during working life. This is another, and quite distinct objective, and the rationale for compulsory savings – either protecting the individual from a miserable old age or protecting society from the extra cost burden dependency entails – do not apply. Society has little reason to interfere with an individual's choice on how they wish to allocate discretionary spending throughout their lifetime and, arguably the welfare of society as a whole is improved if individuals are allowed to make these decisions for themselves.[26]

> "But there are, I think, fatal objections in the complicated nature of these schemes, and in the practical impossibility of exercising any compulsion of this character on our people."
> Charles Booth, *Enumeration and Classification of Paupers, and State Pensions for the Aged.* Journal of the Royal Statistical Society, 54, 4 (Dec 1891), 600-643. Quote is from p. 634.

Support for Voluntary Savings

Incentives, such as tax subsidies, to encourage individuals to provide for their retirement can have a significant if limited impact. They have been given sufficient time to work in Ireland but, in common with international experience, have not raised private pension coverage to the high levels desired. In Ireland, as elsewhere, such taxation concessions encouraged the development of the employer-sponsored pension fund, now the backbone of the pension industry. A fundamental change to the taxation regime can be expected to have a fundamental change on the current and future state of the industry. In this context, it is best seen that taxation concessions have lead to over 50% pension coverage, as without such incentives the coverage would be next to zero - with negligibly few saving through dedicated pension vehicles given the very restricted access to their funds this entails.

If the earlier option is pursued, so the flat rate State pension is increased to a level where poverty in the aged is no longer an issue, then the 70% coverage target of voluntary provision will have to be revised downward as now more retirees will have achieved a pension above the targeted 50% of pre-retirement income. (Further, an increased flat rate benefit can be expected to discourage some voluntary savings, as such saving is perceived as no longer required to achieve the individual's targeted income post-retirement.) Indeed, as the objective of pension policy has now shifted to increase replacement income after retirement, the ideal structure of voluntary pension provision is for very high coverage of those in the highest income deciles, tapering away to zero at the lowest income deciles. This is, in fact, the snapshot of the current distribution of coverage by income decile summarised in Hughes (2005). So the earlier option, if pursued, will immediately lead us closer to the goal of 50% replacement income in retirement for all.

The defined benefit scheme is clearly superior in terms of design than the defined contribution scheme for the pensioner and future pensioner and, arguably so for society as a whole, as it transfers risk away from the individual least able to bear it. In particular, if an adequate pension is defined as one related to previous income then only a defined benefit design can deliver adequate pensions in all investment conditions. However, somebody must underwrite the defined benefit promise for the scheme to work. Individual companies, as discussed earlier, are no longer either able or willing to maintain the promise so are withdrawing from the defined benefit model. The State, it seems, is the only entity that can maintain a defined benefit promise.

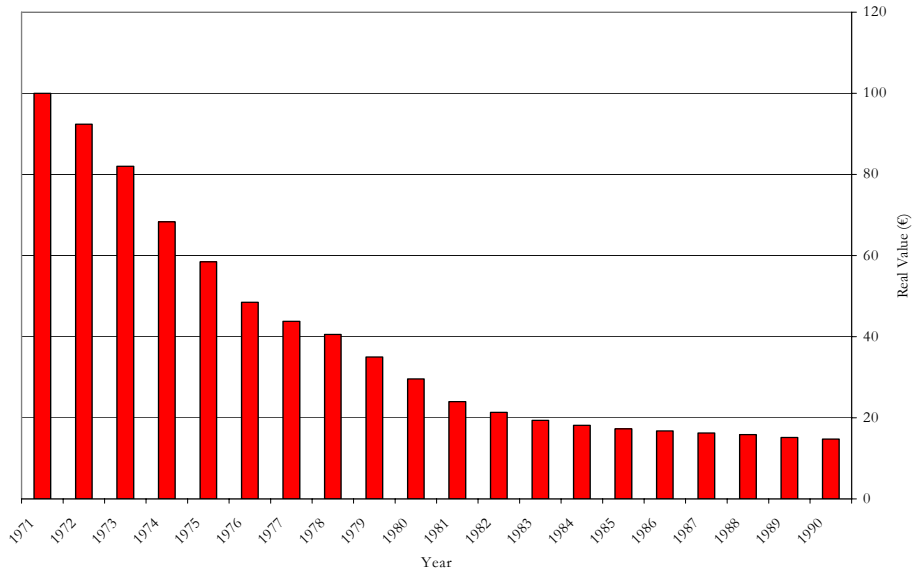
The threat to the defined benefit scheme is a threat to the future development of replacement ratios post retirement. The expectation is for defined benefit schemes, outside of State-guaranteed schemes[27], to convert to defined contribution schemes for new entrants. The

challenge is for the defined contribution scheme to play an increasing role in the future – especially in terms of adequacy of post-retirement income.

The defined contribution scheme may not be up to the challenge. It is well-documented that contributions to defined contribution schemes in Ireland are considerably below the high levels required to provide the targeted income replacement ratio (see, for instance, IAPF (2003), Society of Actuaries in Ireland (2003)), so the switch to the defined contribution design could well be accompanied by a lowering of pension saving. Further, the expected ultimate reduction in pension may not be obvious to the individual as the ultimate pension proceeds from the defined contribution model are up to the vagaries of the capital markets. In particular, the underdeveloped market in index-linked securities in Ireland entails a corresponding underdeveloped market in index-linked pensions (see, for instance, Fitzgerald (2005)).

Investment risk, with the associated discouraging lack of transparency it brings to saving for pensions, has been mentioned when describing funding plans and stressed as the key distinction between defined benefit and defined contribution schemes. Its impact after retirement is best illustrated with a dramatic example. Consider the retiree from a defined contribution scheme in Ireland back in 1971 who purchased a level annuity on retirement at the then ruling nominal long term rate of interest of 8.3%. With no allowance for expenses or margins, and assuming the retiree will draw a pension for 20 years, each €1,000 saved come retirement would convert to a pension of €100 per annum at that time. The evolution of the real value of the pension in each subsequent year is shown graphically below.

Graph 16: Evolution of Real Value of Flat-Rate Pension for Retiree in 1971 (see text)



The graph shows that the purchasing power of the pension fell by half its initial level in six years (that is, by 1976), halved again in real value by the eleventh year (by 1981) and, in the last years of payment, it retained just one-sixth of the purchasing power it had initially. This example from recent Irish history shows that even the most extravagantly provided for retirement can still lead to a miserly real pension in the final years. This is investment risk during the draw-down period; similar dramatic incidences during the accumulation phase can also be given (see, for instance, Whelan (2002a), Whelan (2001) and for a full discussion on investment risk for Irish pension funds, Whelan (2004)).

Pension savings are too important to be left to the capriciousness of the capital markets. Previously, the need to cushion the direct impact of market volatility on pension payments was met by devising intermediate pooling arrangements such as the defined benefit scheme and the with-profits contract. The Irish pension system currently benefits from such a cushioning intermediation and, ideally, it should be a feature in any new system devised. Indeed, failure to continue to provide such a cushion must discourage pension savings as the risks faced are viewed as too great for the expected rewards.

There is only one entity that can now provide the required intermediation between the individual and market: the State. A significant intermediation in voluntary pension provision would be for the State to guarantee to issue index-linked life annuities to retirees at a fixed real rate of interest. The fixed real rate of interest would be set so that, over the long term, the expected cost of operating such a guaranteed annuity fund is zero – that is, the expected cost of providing the index-linked life annuities is in line with the best estimate of their average actual cost over the long term. The annuity rate could be unisex so that the gender of retiree does not create differential pensions (entailing a cross-subsidy from males to females, given the relative greater longevity of females) and the rate could be independent on the amount of purchase money (entailing a cross-subsidy from the poorer to the wealthier, given the relative greater longevity of the wealthy).

Given the State is to guarantee to issue index-linked pensions, on set and uniform terms irrespective of the date of retirement and the expected longevity of the pensioner, then it is not possible that the individual retiree be given an option at retirement to avail or not avail of the State annuity and, at the same time, for the annuity guarantee scheme to aim for cost neutrality over the long term. Simply, if optional, those availing of the State guaranteed terms will do so when it is in their financial interest – because of market conditions of the time or their better information on their expected longevity – and this will frustrate the scheme achieving its aim of cost neutrality. Accordingly, the aim of cost neutrality entails that all pension savings must be

compelled to purchase the State annuity come retirement. The compulsory purchase terms are then just another requirement to avail of the favourable deferment of income taxation allowed under the taxation regime.

The above scheme reduces investment risk in defined contribution arrangements, but does not eliminate it in the accumulation phase. Come retirement, the pensioner enjoys an index-linked pension – giving ease of mind on their purchasing power for the remainder of their lifetimes – which is a considerable improvement in quality on the current level nominal pensions, decreasing in real terms, typical of defined contribution schemes. Prior to retirement, the fixed annuity terms give clarity to the amount of savings necessary to achieve the desired replacement ratio. Also, the investment strategy prior to retirement can better control the desired amount of investment risk as the annuity terms are known. All-in-all, the State compulsory purchase pension annuity scheme achieves a considerable part of the risk transfer away from the individual saving for a pension.

The compulsory purchase annuity scheme would, of course, also apply to retirees from traditional defined benefit schemes. Where the scheme currently promises index-linked pensions then the trustees of these schemes would be required to purchase that amount of the State annuity; if lower or higher escalation terms are promised or targeted for pensions-in-payment, then conversion to the index-linked pension would be on a fixed scale of conversion (set by The Pensions Board). It is key that such schemes, no matter how well-funded or the how good the covenant of sponsoring employer, are subject to the same requirement to purchase the State annuity so that these pensioners also enjoy the security of a State guarantee. The introduction of the compulsory purchase annuity scheme can be expected to give immediate relief to the financing strains currently experienced by such schemes, the extent of the relief depending on, inter alia, the annuity conversion terms agreed and the gender mix of the occupational scheme. In the future, the introduction of such an annuity scheme will allow trustees of occupational schemes, like members of defined contribution arrangements, to control better the residual investment risk.

The IAPF submitted a proposal to the Pensions Board on a restricted 'State Annuity Fund', envisaged only to be available on the involuntary wind-up of a defined benefit scheme when the employer is insolvent and the IAPF (2005) further developed the idea and the rationale behind it. The Pensions Board (2004b) includes a brief discussion on the advantages and disadvantages of the scheme as originally proposed by the IAPF. While both propose it as a device to ease the financing strains imposed by the current funding standard for defined benefit schemes, the idea, as developed above, has broader merit. Kehoe (2003) also proposed a version of a State

guaranteed annuity scheme but he envisaged that the retiree is given the option of whether to buy the annuity or not.

Accordingly, three distinct versions of the State annuity scheme have been proposed:

- *Restricted Version (proposed by the IAPF)*: The guaranteed annuity terms offered by the State only available on the involuntary wind-up of defined benefit schemes where there is a deficit and where the sponsoring employer, who has underwritten the liability, is insolvent. This version, presented and discussed in IAPF (2005), is designed only to give relief from the funding standard as it applies in current market conditions.

- *Option Version (proposed by Jim Kehoe):* Here the retiree is given the choice as to whether to avail of the State annuity terms on offer or provide a pension in more traditional ways. The annuity terms guaranteed by the State are linked to contribution flows into the pension vehicle (not the purchase money come retirement) and might be restricted to standard PRSAs. Kehoe (2003) sets out and discusses the proposal.

- *Compulsory Version (proposed here):* All moneys from tax-empted pension vehicles must be applied to purchase the State index-linked annuity come retirement age.

From the above, a universal State Annuity Fund if suitably developed can play a significant role in pension provision in Ireland in the 21st century.

As Thomas (1986) points out, State borrowings prior to the development of the fixed interest market, included issuing annuities on individual and group lives. It is ironic that roles now seem reversed: the State, so often dependent for finance on the capital markets, seems to have created a dependency of the markets on the State: the state annuity fund is just a way of synthesising financial products demanded by current investors. But what is to be done now the State has little or no need for the considerable sums of money raised by such a universal state annuity fund? The State, following the example set by the National Pensions Reserve Fund, can invest in capital markets almost exclusively outside of Ireland to generate the income needed to pay the annuities. The annuity fund is not a source of borrowing for the State – and protections are needed to ensure that this does not become the case – but simply a financial intermediary between the individual pensioner and the capital markets. So the State annuity fund (by whatever name) is an entity, with a balance sheet of assets and liabilities, that must be managed to ensure that the assets and liabilities at all times broadly match each other. The State annuity fund is a financial semi-

state body, providing a product that private entities are increasingly unable or increasingly unwilling to provide.

Finally, the State might consider facilitating the introduction of a simplified pension savings vehicle for the modest pension saver – the gap in the market for such a product was identified earlier. The vehicle would decouple pension savings from the taxation system – so tax rebates do not have to be claimed but a broadly equivalent amount is automatically credited to the fund. This arrangement would be targeted to those who would intend to save relatively little towards pensions; higher savers would be discouraged from this vehicle as the implicit taxation rebate is based on standard taxation rates. The arrangement, based on the simplicity of the successful SSIA, would set limits on the amount that can be regularly contributed. Proceeds from such vehicles would mature into the State annuity scheme outlined above.

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Endnotes

[1] Based on Irish Life Table 14 (2001-2003) for males, CSO (2004c). The figures both for survival to age 65 years and longevity thereafter are higher for females and for the wealthier.
[2] See Lewis (2003).
[3] As noted in National Council for the Elderly (1994) "…in terms of overall well-being, the benefits elderly people derive from the improvements in income support over the last two decades are being offset by insidious processes of community degradation" (p. 171). Community degradation includes assaults, burglary, vandalism, and road rage.
[4] Interestingly, they do report that Catholic countries are more likely to create an earning-related state scheme.
[5] See McCashin, A. (2004), p. 267.
[6] See Appendix I, p. 59, of Department of Social Welfare & Pensions Board (1997).
[7] *Independent on Sunday* (26 June 2005, p. 20), *'Compulsion lite' and the great pensions debate*. Shaw, E.
[8] As an aside, members of the actuarial profession were vocal on the undesirability and unaffordability of a state pension, see, for instance, Paulin (1896) and Hendriks (1892).
[9] Of course, there is also the private social contract between parents and offspring, the familial contract. This might be unusually strong in Ireland – particularly if, as hearsay has it, many parents financially aid their adult offspring in acquiring their residential property.
[10] I say 'primarily' , as the National Pensions Reserve Fund is pre-funding to a modest degree. The National Pensions Reserve Fund cannot be considered a funded scheme as it does not attempt to match the value of the benefits – it is at most a stabilisation fund.
[11] Keynes memorably attributed inflation to the 'impecuniosity of Governments and the superior political influence of the debtor class'. [*Essays in Persuasion*, p. 63.]
[12] The percentage is higher than Britain and the US (both less than 70%), considerably higher than Japan, France and the Netherlands (between 50% and 60%) and double that of Germany. Housing represents one-quarter of the tangible wealth of the average US household and in western Europe the proportion is estimated to be higher – maybe as much as 40% (Economist (2002b), 65-67). The total balance sheet of wealth would include not only such tangibles as house and life assurance policies but would also include intangibles such as the value of contingent future payoffs (e.g., inheritances).
[13] Strictly, 249,735 members of defined benefit schemes excluded from the Funding Standard (Table 3, p. 18 of Pensions Board (2004)).
[14] Table IV, p. 36 in Department of Social Welfare (1976) for figures relating to the mid-1970s, otherwise Pensions Board (2004), Tables 2, 3, and 4.
[15] See, for instance, the press release of the Society of Actuaries in Ireland, *Defined Contribution Pension Plans – contributions fall way short of levels needed to secure financially secure retirement*. 19th February 2003. Kehoe (2003) memorably put it: "…the real pensions time bomb in Ireland is the inadequacy of contribution rates to defined contribution plans" (p.9). See also IAPF (2003).
[16] See, for instance, Appendix H, especially Tables H1 and H4 in The Pensions Board (1998).
[17] Line 3 of Table 2, op. cit.
[18] It is too much to maintain that Booth's paper (or his pamphlet of 1899) was directly responsible for Ireland's (and the UK's) original old age pension system but it played and important role and the arguments he advances can now be taken as a rationale for the system. A key role was played by New Zealand, whose earlier implementation of such a system demonstrated that it could work successfully.
[19] Marr, V. (1909), *Some Financial and Statistical Considerations of the Old Age Pension Scheme*. Journal of the Institute of Actuaries, XLIII, 245-265. *Discussion* 265-280 with quote from J.W. Thomson's contribution.
[20] Quoted in Lee (1986).
[21] State-sponsored pension schemes are not subject to the financial discipline of the Pensions Act 1990 and its amendments.
[22] The cost of the tax subsidies are not transparent. Hughes (2005) might overstate the cost – as deferred taxation is not avoided taxation. In particular, one would expect a high level of income tax foregone during the current accumulation phase of Irish pension schemes but this would change as scheme's mature, when pension outgo exceed contribution income, and the balance change further when assets start to decrease.
[23] See Schwarz & Demirguc-Kunt (1999) for a concise overview.
[24] As quoted in *Snares and Delusions*, The Economist, 14th February 2002.
[25] Inflation experienced by the retired appears to be in line with general inflation (see Whelan (2000)).
[26] In any event, after providing for a family and house purchase, discretionary income is not evenly spread through working life. It is the primary function of the capital markets – through borrowings and savings - to help the individual redistribute consumption over time.

[27] State-sponsored bodies currently enjoy a derogation from the Funding Standard of the Pensions Act (1990) and it amendments but, under a recent EU Directive, it appears that this derogation may only apply in the future if the State explicitly guarantees the pension benefits.