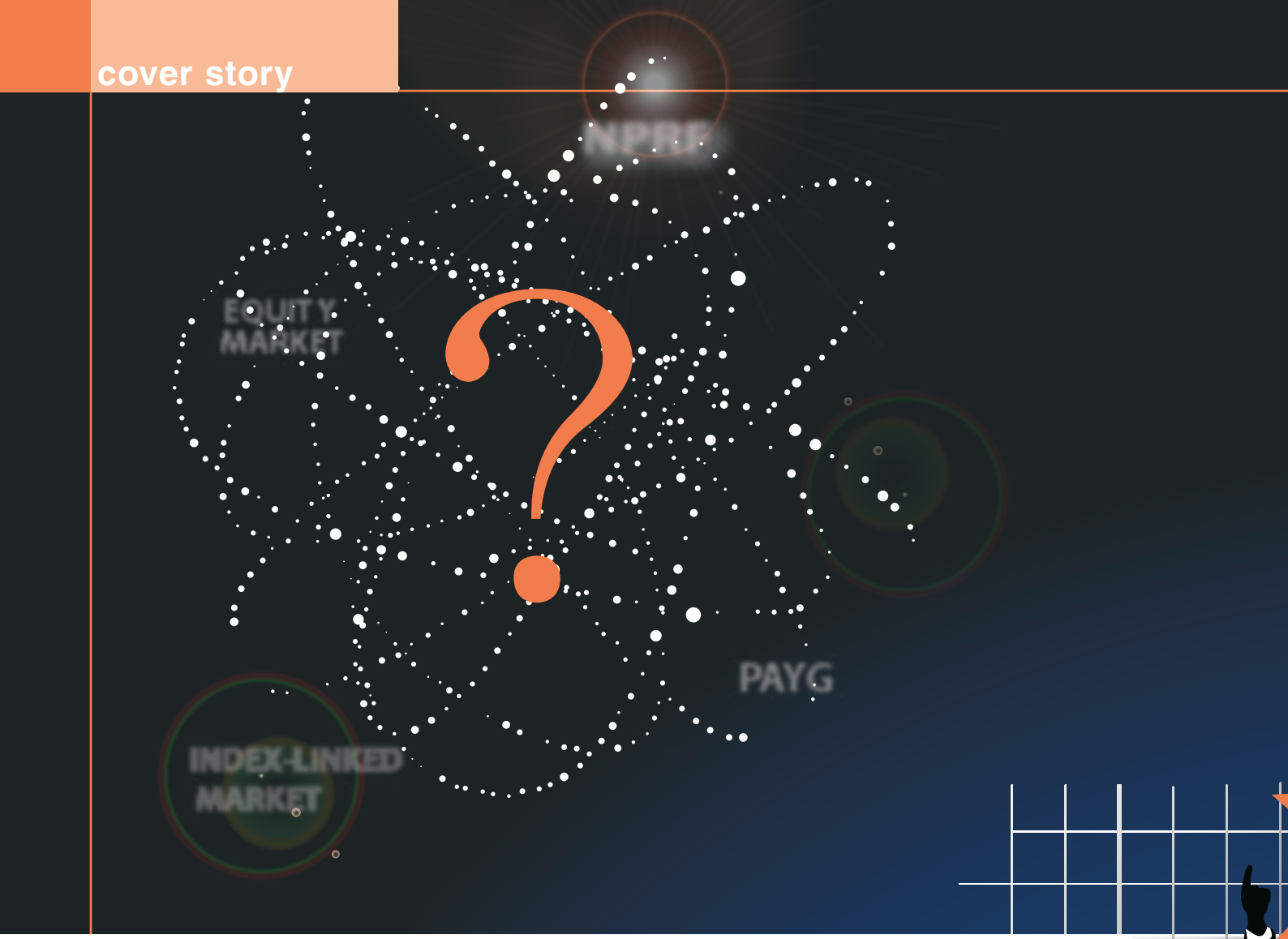

A PRINCIPLED APPROACH TO THE NATIONAL PENSIONS DEBATE

By Shane Whelan

The most powerful force in the universe," according to the aphorism credited to Albert Einstein, "is compound interest." The pensions industry is built around harnessing this all-powerful force for the benefit of the pension saver. No sooner has the person entered the workforce than they are encouraged or coerced to save for a pension, so that the money set aside can benefit from the wonder of compounding growth.

There is, though, a darker side to the force. Small numbers – negligible in the everyday world – take on a disportionate significance after compound interest is given time to work. A figure like, say, 0.5% per annum, might seem trifling – even spurious in the context of equity market returns – but in the timescale of pension saving such a small figure is significant in its impact. In particular, a difference of 0.5% per annum is sufficient to warrant a complete redesign of our national pension system. But I'm jumping ahead - that is the conclusion I hope to bring you to by the end of this article.

Let me summarise my argument. It is simplicity itself, based on just one principle and one key observation that narrows the number of potential national pension systems to just two. The difference between the two systems comes down to a difference in return between 0.5% to 1% per annum in the accumulation phase which entails, over a working lifetime, a difference of 10% to 20% in the ultimate pension. We conclude in favour of the system that offers better value-for-money for contributors.

INVESTMENT STRATEGY	REAL RETURN	INVESTING EXPENSES	ADMIN EXPENSES	REAL SALARY INCREASE	NET RETURN ABOVE SALARY ESCALATION
	% P.A	% P.A.	% P.A.	% P.A.	% P.A.
100% EQUITIES	6.00	0.65	1.5	2.0	+1.85
100% GOVERNMENT BONDS	1.75	0.10	1.5	2.0	-1.85
100% INDEX-LINKED BONDS	1.75	0.10	1.5	2.0	-1.85
75% EQUITIES, 25% BONDS	4.94	0.51	1.5	2.0	+0.93
50% EQUITIES, 50% BONDS	3.88	0.38	1.5	2.0	0.00
100% EQUITIES UP TO 10 YEARS TO RETIREMENT THEN 100% BONDS	4.5	0.42	1.5	2.0	+0.58

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

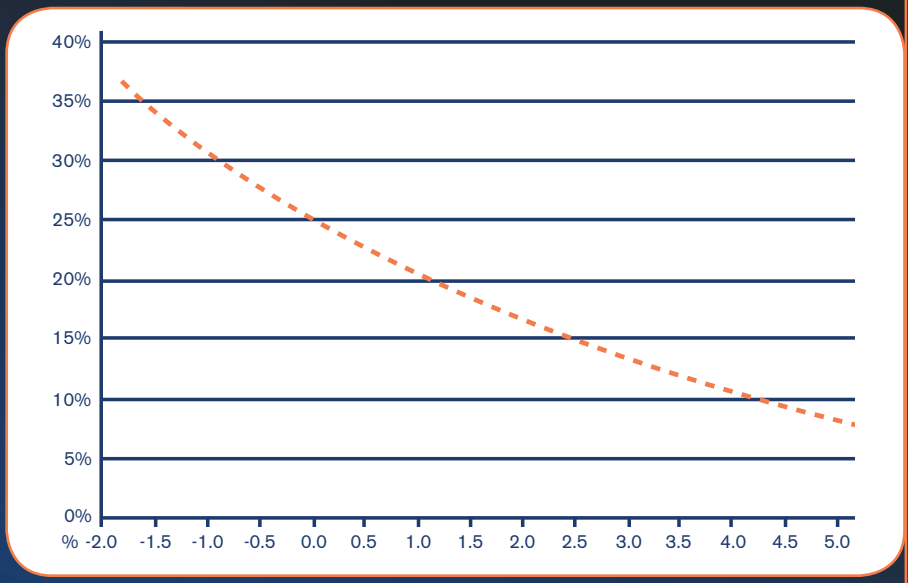

Figure 1: Level Contribution Rate as a % of Salary over working life to provide a pension of half salary from age 65 under various assumed rates of return above wage escalation

Principle 1 [Laissez Faire] *Compulsion in pension provision is only justified up to a certain minimum pension. The minimum level of pension is set so that failure to provide a pension of at least that magnitude triggers an obligation on society to make good the shortfall.*

The logic behind this precept is simple: society should restrict individual choice only if by not doing so imposes a cost on society. Applied to pensions, the state can compel an individual to provide a pension only up to a certain minimum level, namely, that level above which the state will not interfere.

It may be *desirable* for people to have pensions greater than the threshold but desirable outcomes are best incentivised (by tax relief or other inducements), not mandated. The minimum pension should be the same for each individual and be inflation-linked or better, wage-linked, as relative property measures are more appropriate in a developed economy.

You are a radical thinker if you accept the above principle in the design of a national pension system. You are advocating a compulsory flat-rate pension system rather than an earning-related one, with additional saving incentivised rather than compelled. True, it is the logic underlying the system in Ireland since 1909, with the minimum pension set as the state non-contributory pension (which is almost the same amount as the state contributory pension) and provision above that incentivised through tax

concessions up to a salary-related maximum. However, outside of Ireland, only three other countries in the developed world have such a system – Canada, New Zealand, and the UK – and the UK has advanced legislation to bring its system more in line with other countries.

In the recent review of Ireland's system, *National Pension Review (2005) and Special Savings for Retirement (2006)*, it is advocated we stick to our current system, merely tweaking it here and there. Though the Pensions Board's key recommendation is consistent with the *Laissez Faire Principle*, their reasoning does not allude to it – indeed their recommendations are based on the view, entirely contrary to the available evidence,

that further incentives will encourage all to provide for themselves a pension of at least half their salary. I suggest that the best rationale behind our existing system is to be found in the above principle, which also applies to those without the means to provide for themselves.

How is it best to provide for this minimum level of pension? Here pragmatism must dominate principle.

First, the principle applies to a minimum pension. The ultimate pension from a saving plan is a function of five key parameters: (i) the levels of contributions, (ii) the period of accumulation, (iii) the period of decumulation (i.e., life expectancy from retirement), (iv) the return achieved on savings – in both the accumulation and decumulation periods, and, (v) the administrative expenses.

Let us reduce the number of variables to just two to see better what is going on. Take the accumulation period to be, say 40 years, the decumulation period to be, say 20 years, and consider the net return on savings prior to retirement (that is (iv) less (v)). We assume that the net real rate of return above wage escalation post retirement is 0% per annum (so the annuity factor is 20 at retirement, which probably errs on the low side). Figure 1 shows, for a target pension of half salary from retirement, the contribution rate required on varies assumptions on the net rate of return above salary escalation in the accumulation phase.

The contribution rate is very sensitive to the assumed pre-retirement net return. Equivalently, for a fixed contribution rate, the ultimate pension is very sensitive to the net return achieved. So what net rate of return above salary escalation is it reasonable to assume prior to retirement?

Given the uncertainty of returns from risky assets – that is why they are deemed 'risky' – there is a wide range of reasonable assumptions. But, to avoid controversy on this issue, let us adopt the assumptions made in the costings presented in National Pensions Review (2005), summarised in the Table 1.

The cost of the pension is seen to depend on the investment strategy adopted, and the range of costs is very large indeed. For instance, assuming a 100% equity investment strategy gives a contribution rate of 17% of salary per annum to provide a pension of half salary, while a 100% bond strategy requires a contribution rate of double that, of 35% per annum. All the other investment strategies have contribution rates somewhere in between these extremes.

An interesting little conclusion from this analysis is that public sector pensions have a state guarantee and therefore their asset backing is akin to government guaranteed stock, which according to the above table, entails a cost of 35% of salary per annum. Other occupational pensions with largely equity-backed security have a lower cost to account appropriately for the higher risk – the cost for the same pension being of the order of 17% of salary. Accordingly, if a true market approach is adopted to valuing public sector pensions, this difference of the order of 18% of salary must be taken into account in 'benchmarking' public sector remuneration against that of the private sector. This surprisingly large disparity between these two contribution rates is a measure of the market value of equity risk and, of course, all-powerful compound interest.

APPROPRIATE LEVEL OF RISK

The key question is what level of risk is appropriate for individuals to provide for the minimal pension of on our Laissez Faire Principle? Clearly it is wholly inconsistent to argue that everyone needs a certain minimum pension and argue at the same time that they can tolerate high levels of risk. Further, if risk-taking is allowed then the individual is encouraged to take risk because they gain if things work out and do not lose if they do not as others will make up the deficit. Minimal risk is appropriate and this leads to a stable system. *This is our key observation: the most appropriate investment strategy for such savers is the one of least risk.* In this case, the least-risk strategy is to invest in securities the proceeds of which are guaranteed to rise in line with inflation, ideally wage inflation but, failing that, consumer price inflation because of the close relationship between the two. So the appropriate investment strategy is index-linked bonds of suitable duration. According to Table 1, with due allowance for administration costs, and Figure 1, the cost of a pension of half final salary - the national pension target - is of the order one-third salary in each year. If demanding workers save one-third of their salary appears unrealistic then so too is the national pension target.

The Pensions Board assumes that the individual pension saver will be induced into an investment strategy with considerably higher levels of risk. This is an inappropriate strategy. The two reports of the Pension Board take account of the expected increased pension as a result of risk-taking but completely ignore the possible consequences. What if there is a fall of over 50% in the world equity market, as has occurred a two year period since 2000? What if there is a run of 20 years where world equity markets give a negative real return, as occurred in the 20th century? What if the real return from equities is

negative over a fifty year period, as it was in the France and Germany over the first half of the 20th century? The unreliability of the return from risky assets is why the market offers such a high risk premium. It is foolhardy to build a national pension system on such unreliable foundation.

INDEX-LINKED MARKET VERSUS SUSTAINABLE PAYG SYSTEM

The argument above assumes that there is a deep and liquid market in index-linked stock in Ireland to enable the pension saver to minimise investment risk. Such a market does not, of course, exist. But it can be created by the state at negligible cost by simply converting the existing national debt from nominal to index-linked stock.

Imagine for a moment that the state committed itself to developing and maintaining a market in index-linked stock. Such a commitment is simply an undertaking by the state that future tax revenues will be applied to meet its financial obligation under the index-linked debt instruments. This commitment creates a system that is functionally almost identical to the current pay-as-you-go (PAYG) system of flat-rate state pensions, under which future taxation meets the costs of the social contract to such pensions. The key differences between the contrasting system - defined contribution arrangements investing in index-linked stock or a PAYG scheme - may be analysed under the criterion that most appeals to pension savers: value-for-money.

The PAYG approach to pensions can easily be adjusted to be a sustainable system. For sustainability, we must consider an idealised stationary population, where the number of workers entering in any year equal the number dying. It can be shown that in a stationary population with workers contributing a fixed percentage of wages and total contributions divided as pension payments to the retired population that the internal rate of return to contributors is equal to the rate of wage escalation. Accordingly, from Table 1, we conclude that the PAYG system delivers a return comparable to the expected return on a low risk portfolio of assets before expenses. In fact, the PAYG system is somewhat superior in several respects in that: (i) the return to contributors is explicitly linked to wage escalation, a linkage that no existing capital security gives but is ideal for our purposes; (ii) the rate of return is applied to future as well as current contributions; and, (iii) the ultimate pension is not dependent on the performance of the markets, the investment policy pursued by the individual, the solvency of financial institutions, or any other factor.

The above result only applies to stationary populations. The current ratio of workers to retired population in Ireland is above that of a stationary population. Rather than pay out the extra contributions received now in enhanced pensions, the state could invest the surplus contributions to produce a return (from a low risk investment portfolio) of the order of wage escalation. This fund would stabilise the system so that when future contributors fall below the number required in a stationary population, the fund can make up the shortfall.

The unreliability of the return from risky assets is why the market offers such a high risk premium. It is foolhardy to build a national pension system on such unreliable foundation.

It seems that we have arrived at two ways of doing the same thing – providing pensions either through an index-linked market or through a sustainable PAYG system. However, the administrative costs between the two systems differ, and differ materially. Small pension schemes, as we all know, have costs a multiple of times higher than large schemes per member and the costs can vary from over 3% of assets per annum to about 0.3% per annum for larger schemes. The simplicity and economies of scale of the state PAYG system suggests that administration costs could be no more than 0.3% of contributions. However, requiring individuals to save through individual accounts in the market has higher administration costs. The Pensions Board (2005, p. 226-7) estimates that administration costs on personal accounts to be of the order of 1.5% per annum pre-retirement, Being conservative, we might reduce this to reflect our assumed lack of investment choice in such accounts - to say an annual charge of between 0.8% to 1.3% per annum. Overall, the economies of scale of the state PAYG system is of the order of 0.5% to 1% per annum in the accumulation phase. Extra costs of these magnitudes in the pre-retirement phase reduce the ultimate pension by between 10% and 20%, based on the same assumptions underlying Figure 1.

So, for best value-for-money for contributors, the compulsory part of the state pension system should be a sustainable PAYG system.

CONCLUSION

The argument comes down unequivocally in favour of a sustainable PAYG system to provide for mandatory pension saving. Of course, the system advocated is reassuringly like our current system, with the exception that the state pension is explicitly linked to average wage increases and structured more as a financial contract than the ill-defined, politicised social contract it has been to date. The administration infrastructure is in place, including the infrastructure to manage the stablisation fund (by developing a prefunding strategy for the National Pensions Reseve Fund). Indeed, it is possible to make a step change to the level of the minimum pension immediately, if it is believed that the current minimum pension is unacceptably low for the more affluent Ireland.

Details need to be worked out - details such as ensuring that contributions remain a fixed percentage of wages and ensuring that the state pension increases in line with the weighted average wage growth in the economy; there is a need to specify how the system will be modified as life expectancies change, and specify how the system will treat persons who help achieve 'the common good' but are not in paid employment. Above the details, there is the challenge to remove political discretion from state pensions - a particular challenge to Irish politics given its historic importance – and, above all, how to invest such commitments by the state with credibility.

However, a 10% to 20% uplift in pensions for all makes it worthwhile – and doubly so as it also avoids the pointless toil in developing another system to deliver lower pensions.

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