Risk Versus Value For Money In Today's Life And Pensions Market

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1. Background

Unit linked life insurance started in Britain in the early 1960s through companies such as Abbey Life and in Ireland approximately 20 years later through several domestic insurers. It proved a rapid success. From the insurer point of view, capital requirements were much less than for with profit business which was still the main savings product of the traditional companies. For the policyholder, it enabled him or her to invest into stocks and shares with very modest amounts of money. The distribution method was also different, typically through commission paid sales forces selling directly to the public. This proved a better way of reaching the mass market as opposed to relying on insurance brokers who tended to deal mainly with more affluent customers. Initially, the funds into which contributions were invested were primarily equity based funds which were valued usually weekly using computers which were just starting to become a significant factor in the business.

Business prospered and the traditional firms also came into the market with varying degrees of enthusiasm. Initially business was largely regular premium as it generated more commission for the sales force. Single premium business followed, competing with unit trusts as a mechanism to invest in ordinary shares. In fact most funds were initially linked to external unit trusts in order to avoid the expense of having their own investment management business.

Soon the insurers launched the concept of managed funds using internal funds with a mixture of equities and bonds and maybe property. In fact Abbey Life was best known in the market for its property fund. A typical managed fund might have had 30% of its money in bonds and the balance in equities or property, mainly the former. Subsequently, property fell out of favour owing to the difficulty of selling it in a falling market and determining the value of the fund in the meantime. This sometimes led to policyholders having to wait to get their money out of the fund.

2. Market History

Over the 50-60 years that unit linked business has been in existence, markets have been generally kind with the occasional spectacular correction. The equity risk premium has proved robust though remains difficult to assess with any sort of precision. Bond investment commenced with yields of 10% or more and whilst new money yields are now below 2%, the fall in yields has been compensated by substantial capital appreciation. The table below shows the average return on various equity indices over the last 30 years.

| | Annualised Index performance to 1st January 2020 | | | | | | | | | |
|---------|--|---------|----------|----------|----------|----------|----------|--|--|--|
| Country | Index | 5 years | 10 years | 15 years | 20 years | 25 years | 30 years | | | |
| UK | FTSE 100 | 1.4% | 3.4% | 2.7% | 0.7% | 3.6% | 3.9% | | | |
| USA | Dow Jones | 10.5% | 11.0% | 6.8% | 4.9% | 8.2% | 8.3% | | | |
| Europe | Euro Stoxx 50 | 1.7% | 2.7% | 1.3% | -1.2% | 4.2% | 4.2% | | | |
| Ireland | ISEQ | 5.0% | 8.9% | 0.6% | 1.8% | 5.5% | 4.6% | | | |
| Japan | Nikkei 225 | 5.6% | 8.6% | 4.9% | 0.9% | 0.9% | -1.6% | | | |

| | Annualised Index performance to 1st January 2020 adjusted for Inflation | | | | | | | | | |
|---------|---|---------|----------|----------|----------|----------|----------|--|--|--|
| Country | Index | 5 years | 10 years | 15 years | 20 years | 25 years | 30 years | | | |
| UK | FTSE 100 | -0.2% | 1.3% | 0.4% | -1.3% | 1.6% | 1.9% | | | |
| USA | Dow Jones | 8.5% | 9.1% | 4.7% | 2.7% | 5.9% | 6.1% | | | |
| Europe | Euro Stoxx 50 | 0.6% | 1.4% | -0.2% | -2.9% | 2.4% | 2.4% | | | |
| Ireland | ISEQ | 3.9% | 7.5% | -0.9% | 0.1% | 3.7% | 2.8% | | | |
| Japan | Nikkei 225 | 5.1% | 7.9% | 4.5% | 0.7% | 0.7% | -1.8% | | | |

One interesting factor is that returns to bond investors have not been that much less than those to equity investors. The below graph shows the annualised returns up to 1st January 2020 on three different funds that were artificially constructed using equity indices and 10-year bond returns. The equity:bond ratios are 50:50, 75:25 and 100:0.



This demonstrates that in the long run funds heavy in bonds have performed just as well (if not better) than funds mainly made up of equities.

The table below gives the average annualised returns of actual funds, split by their equity and bond make up. In the past the managed aggressive funds (>65% equity) have performed the best, with

managed balanced funds (35%< equity < 65%) also performing strongly. The managed defensive funds (equity <35%) have performed the worst in the long run.

| Annualised Returns of Funds | | | | | | | |
|--------------------------------|---------|----------|----------|----------|--|--|--|
| Fund | 5 Years | 10 Years | 20 Years | 30 Years | | | |
| Bonds - Aggregate | 2.14% | 4.60% | 5.89% | 7.11% | | | |
| Equity - Global | 9.46% | 10.79% | 4.26% | 7.18% | | | |
| Mgd - Defensive (<35% equity) | 3.74% | 5.26% | 4.12% | | | | |
| Mgd - Balanced (>35%,<65%) | 6.26% | 7.90% | 4.65% | 7.38% | | | |
| Mgd - Aggressive (>65% equity) | 7.86% | 9.25% | 4.72% | 9.17% | | | |

3. Customers Attitude to Risk

One reason for the popularity of managed funds was their perceived lower risk compared to all equity funds. When stock markets crashed, the fall in managed fund prices was significantly less. The mass market were not experienced investors and neither were the salesmen selling the products. It was therefore seen as a safer option to put contributions into these managed funds where there was some protection from stock market crashes. The rise of regulation has also been a significant factor. This has gradually increased over the years but has become a major factor since the financial crisis of 2007.

Regulators introduced requirements to "know your customer" and one key aspect was the customer's attitude to risk. Most of the mass market will say they are risk averse and the recommended product must reflect that. We have failed to distinguish between risk and volatility, but more of that later.

4. Expectations of Value

Policy illustrations have always been an important part of the sales process for unit linked business. The purpose was to illustrate what would happen IF the investment return on the policy was at a specified rate and the charges remained as expected at outset. To try and make it clear that these were only illustrations, a number of different investment returns were projected. There were three rates, a lower rate, a central rate and a higher rate. Whilst the literature pointed out that these were only illustrations and the achieved rates could be higher or lower than any of them, it was all the prospective policyholder had to guide him or her. As late as the 1990s, the central rate was 12% and as the central one, a client would be forgiven for thinking of this as a best estimate.

In fact, this was part of the thinking when the industry moved to only showing two rates, the idea being that the policyholder would not focus on any particular illustration. Furthermore,

as inflationary expectations fell through the 1990s, illustration rates were reduced. During the 90s, consistency of illustrations between providers were achieved through a Code of Conduct operated by the Irish Insurance Federation, the insurance industry representative body. However, on 14th February 2001, the Government brought in the Life Assurance (Provision of Information) Regulations, backed by very prescriptive guidance from the Society of Actuaries which all companies were obliged to follow.

The following eighteen years saw 15 versions of this guidance but the key parameters for our purposes were the maximum illustration rates. These progressed as follows.

| Date | Maximum | Maximum | Maxima by Asset Class | | lass | |
|----------|------------|-------------|-----------------------|----------|------|-------|
| | Lower Rate | Higher Rate | Equities & | Fixed | Cash | Other |
| | % | % | Property | Interest | | |
| 14.02.01 | 8 | 10 | | | | |
| 01.07.02 | 6 | 8 | | | | |
| 01.04.06 | 6 | 8 | 7 | 4.5 | 3 | 3 |
| 01.03.12 | 6 | 8 | 7 | 4.5 | 3 | ** |
| 02.12.13 | 6 | 8 | 6 | 3.5 | 2 | ** |
| 01.04.16 | 5* | 7* | 5 | 2.5 | 1 | ** |
| 01.03.21 | 4.5* | 6.5* | 4.5 | 1 | 0 | ** |

* Regulations still specify 6% and 8% but companies must use the lower figures.

** For other assets, companies must look through to the underlying investments.

It should be pointed out that the above rates are maxima and companies are at liberty to show lower figures but in practice, competitive pressures led to the rates becoming standard. It is interesting that when the requirement to distinguish by asset type was introduced in 2006, a 60/40 equity bond split would have allowed the illustrations to continue unchanged. At that time, most managed funds probably did have at least 60% in equities and property. This would appear to still be the case, the funds classed by MoneyMate as "Managed Aggressive" (>65% equity) seem to be the largest, though in recent years many lower equity managed funds have been launched in the market.

As can be seen, the reduction over the last twenty years in inflation, bond yields and expected investment returns has led to a steady reduction in illustration rates for new and existing policies. Companies are now required to send annual updates to the information supplied at outset but they run to several pages and do our policyholders read them? It's probably reasonable to assume that policyholders' expectations, reasonable or unreasonable, are heavily influenced by the initial illustrations, hopefully tempered by more recent annual updates.

More reasonably, they would expect their long term savings to at least preserve their buying power; so a positive real rate of return would surely be expected. Some might say that with deposit rates effectively at zero for several years, any positive nominal rate is acceptable but surely we should be doing better with long term savings vehicles.

5. Guarantees of Investment Return

Even in the 1960s and 1970s, firms were offering what they felt were modest guarantees on their unit linked products in order to compete with the with profit funds. Typically they

would guarantee that over a ten year period, customers would not lose money, this might be given on single as well as regular premium products. The cost of such guarantees was seen to be minimal and afforded out of normal margins. In 1980, the Institute of Actuaries produced a seminal paper on the cost of these maturity guarantees. It was the first time the profession had been introduced to stochastic processes and an introductory meeting was held to teach about time series before the main meeting on the related and very high cost of guarantees. New guarantees almost disappeared overnight. It was considered that policyholders would not be prepared to pay the substantial cost of these guarantees.

Thus through the 80s and 90s, business continued, largely on a non-guaranteed basis. Stock markets generally performed well during this period so customer pressures for guarantees were low. However, at the end of the 90s, the bursting of the tech bubble brought a major market crash. It was felt that maybe banks could offer these guarantees cheaper than insurers, after all they were able to use arbitrage between different groups of customers wanting different protection. Insurers were probably somewhat sceptical but began to market single premium "tracker bonds" with only a third party guarantee, which meant that if the bank proved unable to satisfy the guarantee, the insurer did not have to do so. This was fine until the financial crisis and the collapse of Lehman Bros. They held many such guarantees which could not be satisfied and many international policyholders lost a substantial amount of money. Regulators responded in different ways, in Italy it was decided that the insurers themselves must underwrite the guarantees, which substantially increased the cost of such promises and the reserves which had to be established.

In more recent years, other lower risk products have come onto the market, sometimes "protected" but not guaranteed. In such cases investments are managed to avoid capital loss over a certain period but this cannot be certain. There is no doubt that customers, as they are sold to at present, display a considerable aversion to risk.

6. So What is the Problem?

Today's insurance customer faces a multitude of choices from outside and within the industry. All investment funds are graded according to risk profile, really volatility profile. Customers can invest in cash, bonds, property, equity, private equity, commodities, hedge funds or almost any mixture of these. However, the vast majority of Irish policyholders choose some sort of managed fund, often with a substantial bond content.

As we saw earlier, bonds have in general been a very good investment over the last 30 years or more. Despite "the past is not a reliable guide to the future" being on all our literature, this is probably the way most customers and even insurers think. But let's look at where we are starting from for our new customers.

Bond yields are negative at short durations, banks charge us for the privilege of looking after our money. Even 15-20 year government bonds yield only 0-1%, less perhaps in Continental Europe. The opportunity for capital appreciation has almost disappeared as it seems unlikely yields could go any lower, other than in the very short term. In fact anyone holding long bonds in current conditions needs to be quite brave as a rise in yields will result in a substantial capital loss. On top of this, the downward pressure on upfront charges has meant that these managed funds incur typically a 1% - 1.5% charge, maybe

more where external fund management expertise is used. Even the traditional bid/offer spread has often been replaced by an early surrender penalty and an extra fund related charge. In current conditions it is quite hard to see returns on bond based funds being positive for the next few years.

In a low inflation, low interest rate environment, it is likely that equity returns will also be below those experienced in the past but maybe in real terms, not hugely so. Timing is also less of an issue than in the past. Many unit linked pension funds incorporated a concept of lifestyling, whereby a policyholder's funds were moved to less volatile investments, ie bonds and cash, as he or she approached retirement. The advent of ARFs and drawdown pension products has meant it should not be necessary to cash in a fund at an inopportune time. Thus even a 60 year old can afford to take a long term investment view as he or she may well have more than 25 years to live.

At the extreme, could we have a problem with the regulators? If in 10 or 20 years' time, our customers are complaining about the poor returns they got from their bond based funds, what might the regulators say? They could argue that you knew the conditions at the time and that bond yields were on the floor. How could this be a suitable long term investment for a client looking well into the future? We can probably rely on our much improved wording in our literature and maybe on the salesperson's presentation but we should not discount it as a risk. Many years ago, one UK company decided after exhaustive internal debate to impose a blanket ban on pulling employees out of company pension arrangements and switching them to personal pensions. However, it still happened without Head Office knowledge and the resultant fines plus issues with apparently worthless, at the time of sale, annuity guarantees put the company out of business.

7. So how should we define Risk?

Risk is a very broad concept, in many ways too broad to be useful. For an investor or insurance policyholder, it depends on the context.

The traditional building society saver, usually an older person, would have seen risk as meaning loss of capital and our regulators seem to have adopted this almost across the board. Certainly for "rainy day" savers who might need access to their money at any time, this is a valid approach and usually the decision was one between instant access and a slightly better return if the saver can commit his or her money for a period, say one month up to perhaps twelve months. These savers were generally not interested in markets and would be unwilling to invest in anything new or where they had little knowledge.

Those saving for the long term, say ten years plus, should be less concerned about market risk. At the extreme, a pension policyholder in his or her twenties is saving for their retirement and inflation over forty or fifty years should be a much bigger concern. Volatility of markets is not really a problem, in fact for the regular saver, "pound cost averaging" can be shown to be a significant benefit for the long term average return. Thus a deposit based plan is not suitable as the absence of volatility comes at the cost of significantly lower expected returns. Such an individual is probably best advised to invest primarily in equities, even say emerging markets where volatility is substantial, for much of the term of their policy.

Historically there was a concern that such an investor might be unlucky and suffer a large drop in the stock markets just before retirement. Thus, as outlined in the last section, insurers introduced the concept of lifestyling whereby funds were gradually switched from more volatile equity type investments to cash or bond based alternatives over the last five to ten years before retirement. This meant that the policyholder was sacrificing some expected return for more certainty about the level of the fund at retirement. Most insurers now offer such an approach though it is hard to justify based on stochastic modelling alone – a 2008 SAI paper suggested that it would not reduce the likelihood of an unacceptable outcome. However, the extremes of such outcomes can be avoided at the cost of eliminating most of the well above average outcomes. Perhaps a possibly misplaced comfort factor is the reason for such an approach.

For defined contribution pension plans, a fall in stock markets shortly before retirement is not the only risk. In the 1970's, $\in 1$ pa of pension cost about $\in 5.50$ for a 65 year old male. That cost is now more like $\in 25$ which makes pension saving so expensive. Thus the cost of an annuity at retirement is another major uncertainty though in recent years a combination of falling yield and increased life expectancy has tended to mean rates have only gone one way.

Given all of the above, we can see that risk is not a single concept to be managed but could be any one of the following:

- a) Volatility or fall in capital
- b) Failure of investments to protect against inflation
- c) Uncertainty of future returns
- d) Cost of an annuity at retirement
- e) Uncertainty of future lifespan
- f) Security of the financial institution in which one invests
- g) Changing health needs

This short paper does not intend to address all these but will address some aspects of the first five.

8. How do we best deal with Investment Risk?

Legislators have given us some assistance with a) and d) above. By removing the need to buy an annuity at the retirement date and allow ARF or drawdown products instead, the loss of capital risk has been much reduced. Market timing is now not a major issue and policyholders can continue with broadly the same underlying investments both before and after retirement. If a switch into less volatile investments is desirable, this can be managed gradually and avoiding times when equity markets are depressed. Traditional annuities still have a part to play but perhaps only at much more advanced ages. Annuities are expensive because of low yield, increasing longevity and the capital requirements placed on insurers by the regulators. Thus perhaps annuity purchase should be delayed to say age 80 or even 85, just to protect against extreme old age but see below re a different type of annuity.

Prior to such a point, it seems sensible to remain invested in maximum return stocks, especially as there is probably flexibility over exactly when to purchase an annuity. So maybe b) and c) above are best mitigated by an equity based investment strategy with a large divergence across

markets, industries and countries. Of the remaining risks above, f) should not be a problem as long as one invests in a regulated firm where investor protection schemes are in place. This leaves e) and g) and certainly if one is likely to require long term care at any stage, this can be very expensive. However, the Fair Deal Scheme in Ireland and also the UK assessment system tends to penalise the frugal as accumulated assets have to be used firstly towards the cost of care.

That might influence a pension policyholder at retirement in deciding how quickly to draw down his or her pension savings. There have been a lot of presentations on this subject which seem to be very cautious. Often a rate of about 4% at 65 is recommended, much the same as if one bought an annuity. This ignores the fact of still being invested in equities and not having to pay for the insurer's profit margin and capital cost. It is perhaps surprising that the relatively recent pension freedoms have not led to the launch of unit-linked annuities. These products briefly appeared over a generation ago but did not really work because of the requirement that annuities could never reduce in value. However, an annuity where the "currency" is units rather than euros, provides the longevity insurance whilst allowing the policyholder to remain invested in real assets. Capital requirements would still be there but at a substantially lower level than for traditional annuities. Is this a market opportunity?

Hopefully at 65 one is able to travel and make more of life than one would at 85 so there is a strong case for at least a 6% withdrawal rate from the pension pot. One of the authors commented "Should I outlive my pension pot, I think it unlikely I'll end up on the streets and I have told my four children that if all else fails, they are a "contingent asset" as the accountants would say."

9. So how should our products be Structured?

Clearly risk tolerances vary hugely across the population. However, our industry has done a poor job in explaining risk to our customers. In this regard, we have not been helped by our regulators. Most people need a modest amount of short term savings or "rainy day money". However, beyond that, long term savings need to be looked at differently. Perhaps we need to return to something closer to the early days of the unit-linked industry. In those days, there were high front end charges on regular premium savings, which combined with some poor sales practices resulted in many clients losing money. These charges have largely been replaced by less obviously damaging fund charges. Often these are 150 bps or even more, although the advent of PRSAs has perhaps helped limit fund charges on pension plans. When expected returns were 10% pa, these were perhaps justifiable; in a sense the client keeps say 85% of the return, though in real terms, he or she got less than that. With equity funds now producing perhaps 5% nominal. 3% real, 150 bps is about half of the return. A managed fund with a high bond content can probably only expect at best 3% nominal and a very modest real return. All of this will be swallowed up by the insurer's and investment manager's fund charge.

In the current environment, it is hard to see a cautious managed fund producing a positive real return over the next ten years with an annual charge of 100 - 150 bps or more. In times past, one reason for high up front charges was that our shareholders demanded a higher return on their investment than did our policyholders. It thus made sense to take the shareholder's return

out of the plan first. Of course, the downside is that it takes several years for the policyholder to break even but does this matter, particularly for a pension plan? Surrender statistics tend to show a sharp rise in rates once plans are in positive territory. Up front charges could help with financial discipline!

10. Product Design Options

We looked at three different product charging structure designs, one with a high AMC charge, one with a continuous premium charge and one with high front end load. All the product designs assume that the death benefit is the value of the fund, i.e. no sum at risk. The policy term of each product was 30 years. The table below shows the rates used for each product:

| Option | AMC% Fund | Premium Charge | Yr 1 allocation rate |
|----------------|-----------|----------------|----------------------|
| AMC | 1.3% | 0.0% | 100.0% |
| Premium Charge | 0.50% | 10.0% | 100.0% |
| Front End Load | 0.5% | 0.0% | 15.0% |

These rates were chosen to give a shareholder return on capital of 8%. The below tables show the aggregate and annualised returns to the policyholder:

| | 5year | | 1 | Oyear | 15year | |
|-----------|------------|---------------|--------|--------|--------|----------------|
| | | | Agg | Annual | Agg | Annual |
| Option | Agg return | Annual return | return | return | return | return |
| AMC | 109% | 1.65% | 120% | 1.82% | 132% | 1.89% |
| Premium | | | | | | |
| Charge | 99% | -0.13% | 112% | 1.15% | 127% | 1.61% |
| Front End | 89% | -2.21% | 112% | 1.11% | 131% | 1.80% |
| 20year | | 25year | | 30year | | |
| | | | Agg | Annual | Agg | Annual |
| Option | Agg return | Annual return | return | return | return | return |
| AMC | 147% | 1.95% | 164% | 1.99% | 183% | 2.03% |
| Premium | | | | | | |
| | | | | / | 40004 | a 4 664 |
| Charge | 145% | 1.86% | 165% | 2.03% | 190% | 2.16% |

The Front End Load design gave the poorest return to policyholders if they surrendered early, but best return over the full 30 yr term.

The Higher AMC option performed best in the short term, but worst over the long term.

The Higher Premium Charge (i.e. charge is % of annual premium) was between the other two.

11. Conclusions

Earlier in this report we looked at product illustrations and how rates have reduced over 30 years. To some extent our product performance is bound to be judged against this. Ongoing annual information will hopefully have tempered expectations from those earlier days but how many of them are read? Maybe another minimum requirement is a positive real return. Clearly this cannot be guaranteed but with long term inflationary expectations around 2% and significant charges outside and inside the fund, we probably need at least 4% gross from our investments. Bonds will not achieve this for many years so why start with a mixed fund and demand even more from the equity portion? Product Oversight Governance rules are still in their early days but they should lead to more debate about these issues.

We would argue that for long term savings, bonds at current levels do not have a role. With long bond yields around 1% and fund charges higher than that and capital movements likely to be negative, the industry needs to have the courage of its convictions and push a well diversified all equity message. With state pension schemes under increasing pressure and the demise of defined benefit schemes, it will become increasingly important to find a way to deliver optimised value through DC arrangements. We need to engage with regulators to define a more appropriate message for our clients.

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