



Variable Annuities - Past, Present and Perfect?

Presented by:

The Product, Pricing and Opportunity Workstream

of the

Variable Annuity Member Interest Group

To:

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1. Introduction

Previous papers

Two previous papers have been presented to the UK actuarial profession on the subject of variable annuities (VAs) – *Abbey & Henshall*¹ in 2007 and *Ledlie et al*² in 2008. Both of these papers provided significant detail on and insight into the emerging market for VA products in the UK and continue to provide excellent background reading on the subject.

Variable Annuity Member Interest Group (VA MIG)

The VA MIG was established within the UK actuarial profession at the end of 2008 to bring together both practitioners and those with an interest in the VA market to share ideas and to progress a number of research agendas.

One of these research groups is focussed on the area of ‘product, pricing and opportunity’ and it is this group that has produced this paper to take forward the work of *Abbey & Henshall* and *Ledlie et al*.

For more information on the VA MIG, please see:

http://www.actuaries.org.uk/members/migs/topical_migs/variable_annuities_members_interest_group

Objectives of the paper

Unlike the previous two papers which both provided comprehensive insight into the background and mechanics of the VA concept, this paper focuses on the current UK market for VAs. In particular, it looks at the needs, requirements and issues of both customers and advisers, as opposed to just looking at the perspective of the product provider.

It is written at a time when the future of the UK VA market is far from certain. With limited product launches so far in the UK, the closure of one provider and the acquisition of another in 2009, supply into the UK market is limited. In addition, higher profile launches from a number of mainstream UK providers have been delayed, deferred or even aborted.

Now, more than ever perhaps, is the time to take a long, hard look at the prospects for VA business in the UK, a process that we have attempted to start within this paper.

Terminology

No analysis of the UK VA market should be complete without a discussion of the appropriateness, or otherwise, of the term “variable annuity” in the UK context. There are strong arguments that terminology should be used that better describes the products that generally fall under the VA banner.

¹ Abbey, T. and Henshall, C. (2007): Variable Annuities presented to the Staple Inn Actuarial Society 16 October 2007.

² Ledlie, M.C., Corry, D.P., Finkelstein, G.S., Ritchie, A.J., Su, K. and Wilson, D.C.E. (2008): Variable Annuities presented to the Faculty of Actuaries 17 March 2008 and to the Institute of Actuaries 31 March 2008.

However, for the purposes of this paper, just as the authors of the previous papers did, we have stuck with the label 'variable annuity' to refer to any product, life or pension-based, that contains guaranteed benefits, delivered in the same manner as those in US VA products.

For a full description and definition of VAs, both from a global and a UK perspective, we would refer the reader to sections 2 and 3 of *Ledlie et al.* We have not attempted to repeat these definitions here.

Although, within this paper, we have considered the full extent of the UK VA market and, in particular, both pension and life insurance-based products, much of our analysis focuses on GMWBs in the pensions market.

2. A brief history

We have set out below a brief history of the development of the UK VA market to date. We have also looked at the way the extreme economic conditions have played their part in the development of the market.

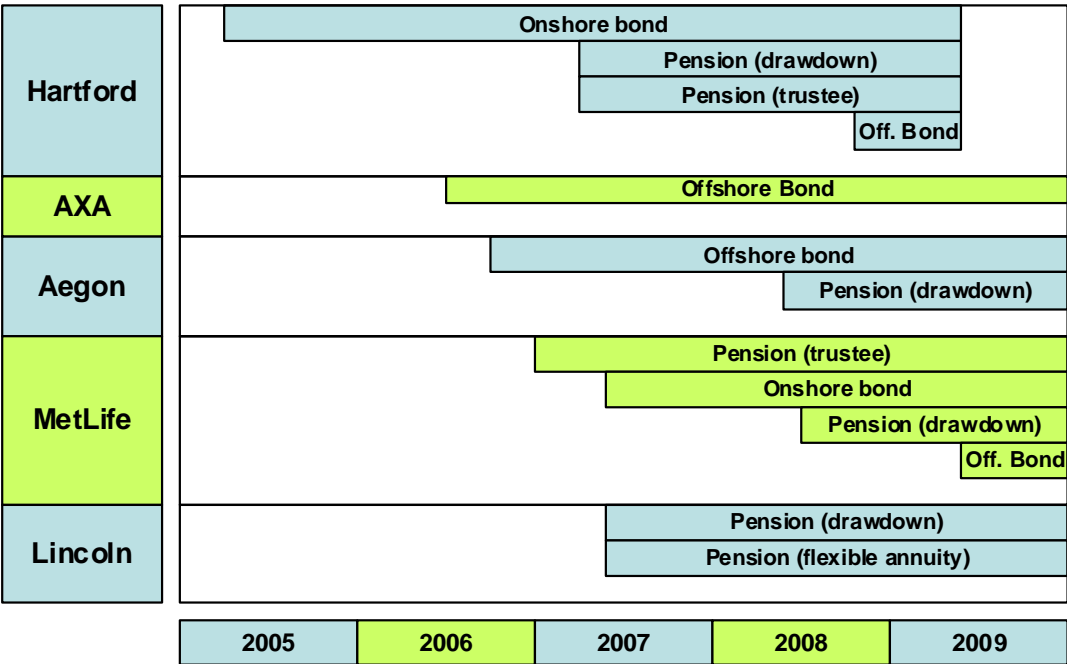
New entrants and evolution

Since The Hartford launched the first VA-style product in the UK in April 2005, they have been joined by four other companies also selling VA-style products, and each one has seen a certain amount of evolution over time, launching new products and/or revising and repricing existing ones.

All of these companies have one important thing in common – they all have a US company within their group that writes significant amounts of VA business and have therefore been able to leverage this US expertise to a significant extent.

The major developments within the UK VA market are shown in the following chart.

UK VA Product Timeline



A number of other products have been sold in the UK over recent years which have investment guarantees and have been, by some, regarded as VA products. However, products that do not deliver those guarantees in the same manner as US VAs have not been included in our analysis.

Publicity without products

A number of companies, ranging from domestic insurers, some without any US VA business, through to further US groups, have talked publicly about entering the VA market over the

past few years. No doubt, a number of other companies have also investigated launching a VA product in the UK, but have just not made their thoughts or conclusions public.

However, apart from the five companies referred to, there have, as yet, been no further VA launches in the UK, with some companies citing operational difficulties and adverse economic conditions as the reasons for delay or abandonment of their plans.

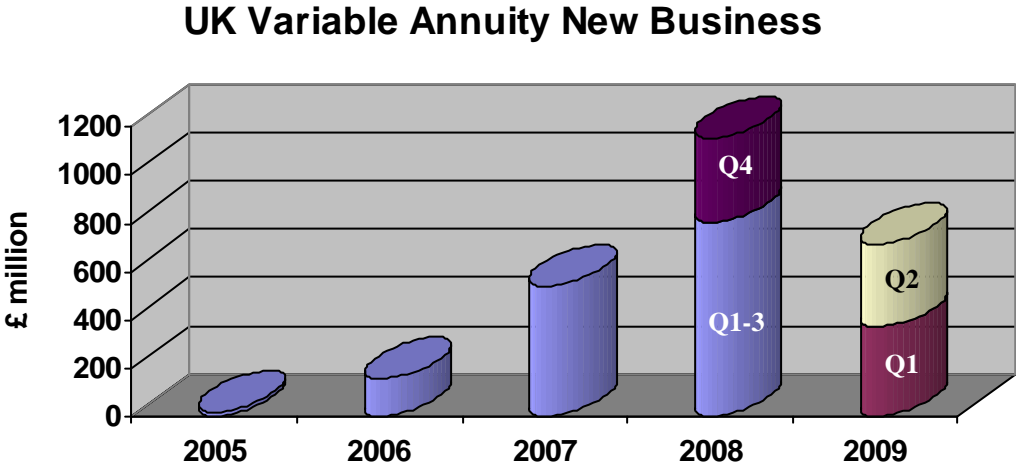
Closure and consolidation

Four years after kick-starting the UK VA market, in May 2009 The Hartford announced that it would be withdrawing from the UK market, retrenching and concentrating just on its home market in the US.

Later in 2009, Sun Life Financial of Canada acquired the UK operations of Lincoln. However, Lincoln UK’s VA product continues to be sold.

Market size

From a standing start in 2005, the UK VA market has grown to a level where it cannot be ignored, with full year single premium sales in 2008 exceeding £1 billion. This growth is shown in the chart below.



Source: The Hartford (2005 – 2006), Watson Wyatt – Variable Annuity Survey (2007 – 2009)

Elsewhere in Europe

Aside from the developments in the UK, several companies have been active in developing VA businesses across a number of Continental European countries and, at the current time, VAs have been sold in the following countries:

| | | | |
|---------|---------|----------|-------------|
| Belgium | Greece | Italy | Spain |
| France | Holland | Poland | Switzerland |
| Germany | Hungary | Portugal | |

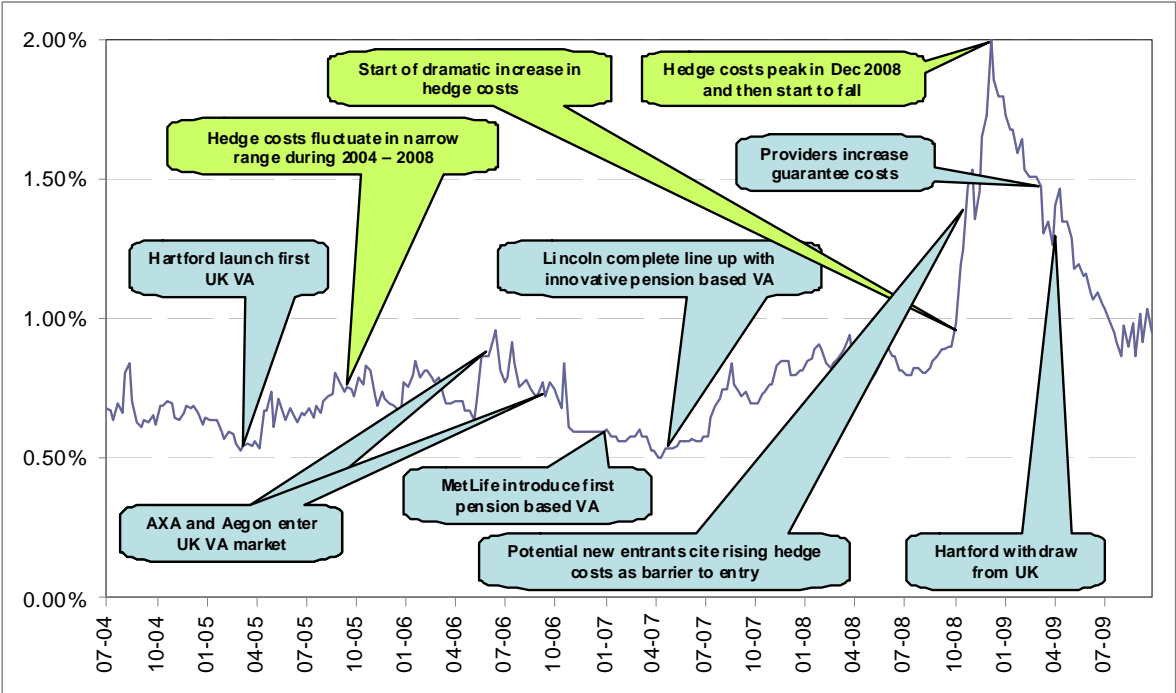
In some of these cases, the product providers also operate in the UK but have decided either not to develop VA business in the UK or, at least, not to do so for now.

Troubled times

The impact of the credit crunch has been significant on the VA industry across the world, with the cost of providing investment guarantees significantly increasing. The following chart illustrates how hedge costs have fluctuated over the last five years and the key events during that time. The hedge cost index relates to a 5% Guaranteed Minimum Withdrawal Benefit for Life with 3 year ratchets sold to a 65 year old male invested 60% in UK equities and 40% in UK bonds with an annual management charge of 1.25%.

The dramatic increase in the cost of hedging since December 2008 is very clear, as is the impact this has had both on existing providers and on potential new entrants to the market.

UK Hedge Cost Index



Source: Milliman (UK hedge cost index)

3. Do variable annuities satisfy a real customer need?

So is there a place for VAs in the UK?

In order to determine whether VAs help meet a real customer need, it is first necessary to understand what these needs might be.

Clearly, there are numerous factors to consider, many of which will be important to all customers but others may only be relevant to different individuals at particular times.

As a first pass, it is possible to undertake a very simple analysis of where VAs may fit in to the retirement planning space, by considering how well alternative products meet five desired outcomes, such as:

- To maximise the starting level of income³
- To have the potential for an increasing level of income in the future
- To minimise the chance that the income level might fall in the future⁴
- To protect the income against the effects of inflation
- To provide for some level of benefit on the death of the holder

Whilst these outcomes arguably may not always be relevant to all customers, there is little doubt that they would be amongst the most important for the majority (or at least when prompted by an adviser).

Clearly, price – or perhaps more accurately, ‘value for money’ (or perception thereof) – will also play a role somewhere. However, for the purposes of this analysis, we are assuming that this factor is fixed and the other outcomes are all considered against a (the same) fixed price (or value).

At this point it is appropriate to point out that people approaching retirement may not articulate their desired outcomes in the ways we have describe above. Instead, they may be expressed more in terms of aspirations, for example, ‘to maintain their standard of living’, or ‘to remain in the family home for as long as possible’.

³ Recent ABI research into how consumers make decisions regarding their retirement income (see ABI Research Paper No. 17, ‘Retirement Income; Consumer wants, needs and priorities’) suggested that this was the single most important factor to consider.

⁴ Many people may express the desire for income not to run out before they die – this is just another way of saying the same thing as far as this analysis is concerned.

Research carried out by Lincoln UK in 2007 suggested the following top 10 aspirations for people approaching retirement:

| Aspiration | 'Importance Index'⁵ |
|---|---------------------------------------|
| Quality of life maintained throughout old age | 34 |
| Enjoyable retirement | 30 |
| Sufficient income to maintain lifestyle | 27 |
| Die at home | 25 |
| Preserve lifestyle/value of income | 21 |
| Avoid relying on dependents | 20 |
| Good quality of nursing care | 19 |
| Keep my home when retired | 18 |
| Earn additional income in retirement | 18 |
| Stay at home if ill | 18 |

In our simple analysis, we have considered how well each of the above five desired outcomes might be satisfied by each of the following four products:

- Level (conventional) annuity
- Escalating (conventional) annuity (eg. by RPI or fixed percentage)
- Income drawdown
- Variable annuity (GMWB)

We have not considered other products here (such as so-called 'flexible' annuities or with-profit annuities, although clearly it would be straightforward to extend the analysis to do so).

The methodology we have used is as follows:

Firstly, for each of the five desired outcomes, the effectiveness of each product in achieving each outcome is ranked in order on a scale of 1 (best product at achieving objective) to 4 (worst product at achieving objective). This is not wholly an objective exercise and some degree of judgment is inevitably involved. In some cases, it is also not possible to differentiate between different products' effectiveness in achieving a certain desired outcome, perhaps because more than one product is equally ineffective in achieving the outcome. For example, both a level annuity and an escalating annuity are ineffective in

⁵ Takes into consideration the relative importance of each aspiration and how well each is met.

providing death benefits⁶. In such cases, therefore, equal ranks have been attributed to the products for that particular outcome.

The rationale applied by the authors for each of the product rankings was as follows:

Starting level of income

Income drawdown can start off with the highest level of income (on current limits up to 120% of a conventional annuity rate). Next will be the level conventional annuity which provides a higher starting level than an escalating annuity⁷. The VA is likely to provide the lowest starting level of income given the guarantee but a much greater potential upside than the escalating annuity.

Potential for increasing income

With uncapped growth potential, income drawdown is ranked the best product of the four for potential future increases in income, closely followed by the VA which is ranked lower because typically it may have some sort of cap on income increases. Clearly the level annuity has no potential for increases and the escalating annuity is only fixed or linked to RPI (ie. less than that of the income drawdown or VA).

Protection against falling income

By definition, the guaranteed level income stream offered by the level annuity performs best here and the escalating annuity is only ranked behind it in second place on the basis that some RPI-based escalating annuities would reduce the income level during deflationary periods. Income drawdown obviously offers no protection at all and whilst the VA does offer some protection, as there are particular circumstances in which income levels could fall (such as withdrawals exceeding maxima allowed under the contract) and so this is rated similarly to the escalating annuity.

Inflation mitigation

Assuming the escalating annuity is RPI-linked, this provides the closest fit for the inflation mitigation outcome. We have rated income drawdown second place here, given that it would typically be invested in some sort of managed fund containing real assets and is therefore likely to provide some sort of hedge against inflation over the longer term. The VA is rated behind income drawdown due again to the likelihood of there being some sort of cap in place on growth (- this might be seen as quite tenuous given this probably only becomes an issue when there is double-digit inflation, ie. higher than the typical cap on growth with a VA). The level annuity clearly fails to mitigate against inflation at all, hence its last place here.

⁶ Ignoring joint-life annuities, annuities with guaranteed periods and annuity protection lump sum death benefits.

⁷ Looking at current annuity rates for a male non-smoker with a £100,000 purchase price, the difference in starting income between a level and RPI annuity is nearly 60% (source: FSA).

Death benefits

This is probably the clearest and least contentious outcome to rate for each product. By definition the two conventional annuity products considered do not provide any death benefit at all (subject to earlier footnote) and are thus rated joint last. With income drawdown, any remaining fund at the time of death falls to the policyholder's estate (subject to a penal tax charge if over age 75 at death) or can be used to buy a spouse's annuity – hence this performs better when assessed against this outcome. However, the typical VA has specific death benefit guarantees and hence has been scored the best of all the products for this outcome.

The final point to make on ranks is that each of the outcomes has been assessed independently of each other. In practice, however, the rank for a particular outcome may be affected by one of the other outcomes when assessed together. For example, for income drawdown, it may be that to justify scoring '1' for potential for future income, the starting level of income has to be lower (and in fact a lower rank than the '1' it has been given when considered in isolation). For simplicity, though, this effect has been ignored.

Having ranked each product for its effectiveness in achieving each of the desired outcomes, the particular needs of different customers then needs to be considered. With our basic analysis, we have looked at four customers with very different needs and desired outcomes and modelled each of them by applying simple weights to each of the outcomes. Again, this process is by definition subjective and in practice customers would be unlikely to follow such an arithmetical exercise, but using this approach does help to illustrate the point we wish to make.

The four customers we have looked at are as follows:

1. A customer having equal preference for each of the five desired outcomes
2. A customer whose main concern is to maximise their starting level of income and cannot afford for the income level to fall
3. A customer with no other source of income but who does not require the highest level of income immediately
4. A customer who cannot take the risk that his or her income will fall and who wishes to leave a sum of money on death

Clearly, this analysis could easily be extended to other customers having alternative preferred outcomes in order to determine (on this simple basis) which product might be most suited to meeting those outcomes. As already mentioned previously though, clearly the decision as to the most appropriate product is likely to involve a lot more factors than we have considered here, and some of these factors are suggested at the end of this section.

As discussed, the four customers are then modelled by assigning weights to each of the five desired outcome factors based on their needs described above. Weighted arithmetic averages are then calculated for each product to come up with a 'suitability index' for each product. As with previous elements of the analysis, the weights are again a matter of some subjectivity, but the method remains sound in demonstrating that different products can be better or worse at delivering different customer needs. Clearly, with such a simple analysis, though, a small change in weight can produce a slightly different answer.

With the chosen ranking system, the product scoring the *lowest* weighted arithmetic mean in each of the four customer scenarios considered is therefore deemed to satisfy the needs in terms of the desired outcomes most closely.

The following four tables illustrate the steps of the analysis and the results in more detail.

Customer 1 – equal rankings to each weight

| | Level Annuity | Escalating Annuity | Income Drawdown | Variable Annuity | Weight |
|-----------------------------------|---------------|--------------------|-----------------|------------------|-------------|
| Starting Level of Income | 2 | 3 | 1 | 4 | 20% |
| Potential for Increasing Income | 4 | 3 | 1 | 2 | 20% |
| Protection against Falling Income | 1 | 2= | 4 | 2= | 20% |
| Inflation Mitigation | 4 | 1 | 2 | 3 | 20% |
| Death Benefits | 3= | 3= | 2 | 1 | 20% |
| Average | 2.8 | 2.4 | 2.0 | 2.4 | 100% |

Customer 2 – needs to maximise income level now and can't afford for the level to fall at any time

| | Level Annuity | Escalating Annuity | Income Drawdown | Variable Annuity | Weight |
|-----------------------------------|---------------|--------------------|-----------------|------------------|-------------|
| Starting Level of Income | 2 | 3 | 1 | 4 | 50% |
| Potential for Increasing Income | 4 | 3 | 1 | 2 | 10% |
| Protection against Falling Income | 1 | 2= | 4 | 2= | 40% |
| Inflation Mitigation | 4 | 1 | 2 | 3 | 0% |
| Death Benefits | 3= | 3= | 2 | 1 | 0% |
| Average | 1.8 | 2.6 | 2.2 | 3.0 | 100% |

Customer 3 – has no other source of income but does not need the highest level of initial income

| | Level Annuity | Escalating Annuity | Income Drawdown | Variable Annuity | Weight |
|-----------------------------------|---------------|--------------------|-----------------|------------------|-------------|
| Starting Level of Income | 2 | 3 | 1 | 4 | 10% |
| Potential for Increasing Income | 4 | 3 | 1 | 2 | 20% |
| Protection against Falling Income | 1 | 2= | 4 | 2= | 50% |
| Inflation Mitigation | 4 | 1 | 2 | 3 | 20% |
| Death Benefits | 3= | 3= | 2 | 1 | 0% |
| Average | 2.3 | 2.1 | 2.7 | 2.4 | 100% |

Customer 4 – wishes to pass on death benefits and cannot afford for income level to fall

| | Level Annuity | Escalating Annuity | Income Drawdown | Variable Annuity | Weight |
|-----------------------------------|---------------|--------------------|-----------------|------------------|-------------|
| Starting Level of Income | 2 | 3 | 1 | 4 | 5% |
| Potential for Increasing Income | 4 | 3 | 1 | 2 | 10% |
| Protection against Falling Income | 1 | 2= | 4 | 2= | 40% |
| Inflation Mitigation | 4 | 1 | 2 | 3 | 5% |
| Death Benefits | 3= | 3= | 2 | 1 | 40% |
| Average | 2.3 | 2.5 | 2.7 | 1.8 | 100% |

Whilst (as has previously been stated) the results of the analysis are by definition subjective and sensitive to the ranks and especially the customer need weights allocated, the analysis does demonstrate that different products may be suitable (or at least most able to satisfy the different customer needs) in different circumstances. Putting this another way, no single product is best in all situations and the VA would seem to rightly have a place on the shelf in the range of product solutions available.

Of course, in reality as we have said, an adviser will need to consider a range of factors and is unlikely to undertake such a simple arithmetical exercise. Other considerations that advisers will in practice need to take into account in assessing the most appropriate product – or products – for their clients might include:

- The range of investment choices available

- Product flexibility as needs and circumstances change, including for example the ability to turn income up/down/on/off
- The ability to write the product in trust for Inheritance Tax purposes
- A product's complexity and ease of understanding (for both the customer and distributor!)
- The option to encash early or access the policy value
- The customer and distributor's perception of value for money
- The health of the customer and the possibility of obtaining an enhanced level of income because of this
- The protection provided under the Financial Services Compensation Scheme
- The product providers in the different markets and the quality of their product offerings and reputation
- Product choice and availability
- And inevitably, the actual cost of sales compared against the commission rate (which is likely to vary greatly between products and providers, although this bias is likely to reduce as we get closer towards 2012 and the introduction of the new adviser charging rules under the Retail Distribution Review)

4. A peek into the future

We will now identify some of the key drivers that are likely to shape the future of the UK VA market. We have divided these factors between those affecting the supply of VAs and those affecting demand for VAs.

| Demand | Supply |
|-------------|----------|
| Regulatory | |
| Demographic | Economic |
| Awareness | Market |

Each of these factors is described in detail below.

4.1 Regulatory Factors – Supply & Demand

4.1.1 Pension regulations

The complexity of UK pension legislation is well known. However, whilst most of this complexity equally affects non-VA as well as VA business, there are some aspects that cause additional issues for VA business, particularly GMWBs. Whilst these are probably more a result of legislation not keeping pace with product innovation rather than anything else, they all arguably add unnecessary complexity for providers, distributors and customers, thereby potentially stifling both demand and supply. These additional issues include:

- HMRC sets a maximum level of income that can be withdrawn from an income drawdown policy, the purpose of which is to stop the customer from running down their fund too quickly. However, when a GMWB is ‘in the money’, it is highly likely that the guaranteed level of income will be higher than the HMRC maximum. Unless addressed, the excess of the guaranteed income over the HMRC maximum would be treated as an ‘unauthorised member payment’ and liable to a tax charge at an additional 40%!

Some of the current UK VA providers have found a way (that is not to the detriment of the customer) to avoid this issue actually occurring in the first place – the approach adopted has been approved by HMRC. However, others give the customer the option of either restricting income to the HMRC maximum or converting to a level conventional annuity at the guaranteed level.

- Current legislation does not allow an income drawdown and an annuity to be written within the same policy. Thus, a GMWB for life consisting of income drawdown followed by an investment-linked annuity cannot be written under one policy. In fact, the customer has to positively elect to move into the investment-linked annuity at the time of ‘conversion’ (ie. this cannot be the default), even though this is what the customer will normally do as they have purchased a GMWB for life. It would be far better for all concerned, but especially for the customer, if this could all be written under one policy, even with the same current restrictions as to what can be done pre and post age 75.

4.1.2 *Solvency II*

The introduction of the Solvency II regime in 2012 will impact the relative attractiveness of different post-retirement products to providers and thus to customers via costs/rates.

The rules will also have an impact on providers of VAs, be they for a pensions environment or not, and whilst it may be too early to quantify the effect that the regulations will have, any provider either considering entering the VA market, or offering products that could have VAs competing against them, will need to pay close regard to the evolving regulations.

In theory Solvency II should bring a level playing field across Europe, so removing the attractiveness of selling a product out of one country over another just due to capital or reserving rules. However there is no guarantee that this will be the case, and although the regulations will be common, the interpretation and implementation of them may still differ so this is another area to be closely watched.

4.1.3 *RDR and distribution*

Although final details of the changes that will be brought about by the Retail Distribution Review (RDR) in 2012 are still incomplete in places (and opinions certainly differ on its impact), it is clear that the RDR will have a significant impact on the provision of financial advice in the UK.

Currently, a widely held view is that the ban on commission in the IFA market will reduce the availability of financial advice. Overall, this will reduce the volume of investment products sold – a situation contrary to the FSA's intentions when they embarked on the RDR. Being complex products requiring a significant amount of advice, it is a natural conclusion that the RDR is likely to have an adverse impact on sales of VAs.

However, the RDR does offer potential benefits for the distribution of simple products and therefore if 'simple' VA products could be developed, these may fare well through, for example, the simplified advice regime introduced by the RDR.

Also, retail bank distribution is often considered to be a 'winner' under the RDR and so VA providers with effective high-volume bank distribution may also benefit.

Interestingly, the new standards of independence will compel IFAs to consider more than just packaged products. IFAs will have to justify why they are recommending a product in preference to all other products – not just in comparison with other packaged products. In some cases it may not be straightforward to justify packaged products in preference to, say, investment trusts and exchange traded funds. But VA products with their built in guarantees have a differential feature – something which, if valuable to a particular client, will make a recommendation for VAs capable of justification in comparison to other packaged products.

4.1.4 *Communication*

Customers rely on the product information provided to them at the point of sale and then periodically thereafter. Product brochures and projected benefit illustrations therefore need to strike a balance between detail and ease of understanding – a balance that is often difficult to achieve, particularly with VA products.

In addition, most people would probably agree that deterministic projections will never be able to show the real 'value' of VA guarantees. However, whilst FSA rules allow stochastic projections (in addition to the normal deterministic ones), they are still rarely provided.

The need to communicate with policyholders on a regular basis is even more important with a VA product than most other life and pension products. It is important to keep policyholders informed about their holdings, withdrawals taken, guarantee level, etc.

4.1.5 Complexity and mis-selling concerns

VAs, by their very nature, are likely to involve a greater risk of mis-selling than other retirement products that have been considered in this paper. There would appear to be a number of areas where both providers and distributors may run into trouble if they do not have proper controls in place. In the US, VAs have been associated with mis-selling scandals with millions of dollars in compensation having been paid out. Much of this has been linked to a lack of understanding by customers given the intrinsic complexity of such products and this is also a key risk for the immature UK market.

In the UK, the recent Financial Services Consumer Panel report expressed concern about the ability of advisers to cope with the growing complexity of retirement income products and specifically identified 'third way' annuities (VAs) as being of particular concern, highlighting the risk of both advisers and customers failing to understand the products sufficiently.

Following the bankruptcy of Lehman Brothers, the FSA launched a review of the marketing and distribution of structured products, particularly those which had been backed by Lehman's. Whilst this didn't cover VAs in the UK, structured products can be seen in some ways as alternate products to VAs and so it is wise to take heed of the discussions.

As we saw in our simple analysis earlier in the paper, the choice as to whether a VA product is the most appropriate given a particular set of circumstances is not clear cut. Even if the relative importance of a customer's desired outcomes can be precisely quantified, there remains a greater or lesser degree of inevitable subjectivity in coming up with the ideal product selection.

A product's terms and conditions should also be referred to in order to understand what discretion (if any) the provider may have to review charges in the future for in-force business. It would appear from reviewing the terms and conditions of the significant products in the UK market that most of them reserve the right to review (presumably, at least in theory, both up and down!) charges in certain circumstances. These circumstances normally include a generic 'catch-all' in order to protect the financial well-being of the organisation but which might not be in the spirit of the Unfair Terms in Consumer Contracts Regulations or Treating Customers Fairly principles. However, putting up the price of a guarantee for in-force business is unlikely to be a decision that firms take lightly given the potential reputational damage that may result. After all, when is a guarantee not a guarantee? Maybe when you don't know how much you are going to have to pay for it.

Another example exists where a VA guarantee is so heavily 'out the money' that the policyholder is effectively paying for something (the guarantee) that will never be used. New product designs are appearing in the US whereby if the guarantee becomes greater than a pre-defined percentage out of the money then the charge for the guarantee is removed. This does though have the consequence of putting up the initial cost of the guarantee. The familiar 'step-up' feature of VAs, where the guarantee base is increased (usually up to a predefined level or 'cap') also helps to mitigate this issue.

4.2 Demographic – Demand

4.2.1 Increasing DC monies to be decumulated

With nearly 9 in 10 Defined Benefit pension schemes in the UK now being closed to new entrants and replaced in the majority of cases with Defined Contribution schemes, the number of people and amount of money that would typically have become a scheme pension will be dropping and the amount that is available for annuitisation, drawdown or other retirement options will increase. This will drive demand for further options and products, and drive supply as providers see higher sales potential from the sector.

4.2.2 Increasing life expectancy

It will not come as news to any reader than life expectancy has been increasing rapidly over recent years. Where a male retiring in 1981 had an average life expectancy of 13 years, this is now around 17 years and is forecast by most observers to increase further to 20+. Similar improvement has been seen in female mortality and this trend is also expected to continue over the next few years.

The effects on annuity writers are clear – the cost of annuities rises as life expectancy increases and the risks increase as future improvements become or remain less clear.

From the customer's viewpoint, the longer timescales bring further into question what investment strategy is most appropriate. With an expected lifetime of 20+ years, locking into gilts and corporate bond yields at a particular point in time (as they effectively do when buying a conventional annuity) may be less appropriate and more flexible solutions offering a wider choice of investments may become more popular.

4.2.3 Flexible retirements

The concept of moving from full-time employment to complete retirement in one step is slowly becoming less common, with people electing to cut down hours gradually out of choice as they approach retirement, or having to work past 'normal' retirement age to bolster their income and savings. However, despite this change in behaviour, the vast majority of people still take the benefits from their pension accumulation plan(s) in one go. Products that provide more flexibility than conventional annuities, such as income drawdown and VAs, may be suited to the requirements of these customers. However, there is probably scope for product innovation, particularly in VAs, to cater for this change in retirement pattern even better and maybe even increase the proportion of people who phase their retirement.

4.3 Awareness – Demand

4.3.1 Distributor acceptance

VA products are, generally, very complex, with a multitude of designs and structures. This may tend to slow the evolution of VA products into the mass market as distributors perceive that they are complicated and difficult to sell. Variations in even the small number of products currently on the market include different:

- Guarantee type – income, capital or death (or combination thereof)

- Guarantee structure (eg. maximum income or an 'underpin')
- Review frequency for guarantee base (eg. annually, tri-annually, 2.5 yearly!)
- Charge for the guarantee (and whether this is a function of investment choice, age at commencement, age at income commencement, etc.)
- Guarantee level increases (capped at a maximum percentage or uncapped)
- Maximum income levels (usually age-related) up to which the guarantee base will not be reduced

Therefore, there is the potential for much greater product variation with VA products because of their complex features and as providers look to differentiate their products and blur the ability to compare price with their competitors. For example, is an annually reviewable but capped at 10% guarantee better or worse than a guarantee that is only reviewed once every three years but then is potentially uncapped? Clearly, this is difficult to assess at the time of purchase and only experience will determine which turns out to have been the better choice.

Of course, the level of acceptance by distributors that these guarantees meet customer needs and provide value for money will also have a bearing on the future of VAs.

4.3.2 *Consumer awareness*

Consumer awareness of retirement income products in general is very poor in the UK, so, for a recent innovation like VAs, it would be natural to assume little or no awareness within the products' target markets.

A key feature of VA products is the ability for holders to stay invested in the market whilst drawing an income and/or benefiting from capital and death guarantees. Customers are able to select from a range of fund choices based on an assessment of their attitude to risk often determined using some form of risk tolerance questionnaire (RTQ). The answers to the questions are used to assess the customer's willingness to put their income and/or capital at risk in return for a higher expected return. This is part of the normal regulated needs analysis process carried out by the adviser at the point of sale.

As a result of the responses to the RTQ, an appropriate asset allocation and fund choice will be determined. Thus, someone who cannot afford to risk much of their capital for example, will usually (all other things being equal) be advised to put their investment into low-risk funds whereas someone who perhaps has other sources of income and can afford to take more risk with their investment might decide to put more of their investment into real asset funds such as equities and property.

The problem though is how to modify the outcome of the RTQ assessment for the existence of VA guarantees. The conservative investor (as defined by the responses to the RTQ) might in fact be better served by putting their investment into riskier funds given the addition of guarantees on their VA product, since the downside is protected but there is a greater potential upside. This problem is greater when the product provider does not differentiate the charge for the guarantee by asset mix, age or fund choice. In such circumstances, there is effectively an arbitrage opportunity for the customer (same cost of guarantee, same downside protection, and greater upside potential). In the future, this could lead to accusations of bad advice where the risk assessment was not adjusted for the existence of a

guarantee. The problem is one of modifying the assessment, although new interactive tools are being developed to help advisers and their customers understand this point better.

4.3.3 Distribution channels

VAs clearly occupy 'mass market' status in the US. With net sales for the year ending June 2008 of \$33 billion and assets of \$1.4 trillion, the share of the US retirement market is significant and, to an extent, VA is a widely understood phrase.

VA sales in the UK have, to date, been solely through IFAs. Whilst the IFA market is expected to continue to be the dominant distribution channel in the UK, developing VA sales both through retail banks (bancassurance) and through direct to consumer models would certainly contribute towards achieving mass market distribution for VA products.

4.4 Economic - Supply

4.4.1 Cost of guarantee

Guarantees do not come free and the charge made for the guarantee will clearly impact on fund performance. This is especially true in the current market conditions where the cost of providing guarantees has rocketed and forced many VA providers to reprice their products, either in terms of the charge made for the guarantee, the investment flexibility allowed under the terms of the product, or the 'richness' of the guarantee provided itself. Although costs have generally reduced during 2009, at the time of writing they were still higher (on a like-for-like basis) than they were prior to the start of the credit crunch. Costs probably need to reduce a bit further along with some stability in the markets and a reduction in the concerns over the credit-worthiness of major market counterparties before there is any increase in the supply of VA products in the UK.

However, whilst price will obviously drive supply and demand, what is probably more important for demand is customers' 'willingness to pay' relative to price. If the cost (and therefore price) of guarantees goes up, this is not necessarily an issue if customers' willingness to pay goes up by the same amount or more. Of course, determining customers' willingness to pay for VA guarantees is far more difficult than determining their cost!

Some people believe that if the VA market really takes off, then there may be a shortage in the availability of suitable hedge instruments. This would result in an increase in the cost of these hedge instruments and therefore in the cost of guarantees.

4.5 Market - Supply

4.5.1 Recent experience - takeovers and withdrawals

2009 was an eventful year for the UK VA market. MetLife and Aegon reacted to the difficult economic conditions by reviewing their products for example by:

- Increasing guarantee charges
- Reducing income levels for a particular age
- Reducing the maximum allowable level of equity exposure under the guarantee

However, perhaps the most notable event was the complete withdrawal of The Hartford pulling out of the UK (and other international markets) in May 2009, although this was more as a result of the US losses rather than a reflection on the success and viability of the UK operation.

Secondly, there was the takeover of Lincoln UK by Sun Life Financial of Canada which completed in October 2009, although the Lincoln *i2Live* VA product continues to be actively marketed and sold today.

Indications are that the withdrawal of The Hartford may not have been as damaging to the long-term success of the UK VA market as perhaps was first thought.

4.5.2 *New entrants*

Many believe that the UK VA market is unlikely to take off significantly until more companies, including at least one of the big UK life companies, have entered the market. This is because until this happens there will continue to be nervousness amongst some advisers as to the credibility and long-term viability of this market. For example, there is concern amongst some, especially following The Hartford's withdrawal, of what the non-UK parent companies of the current providers might decide to do in the future with their UK subsidiaries.

In addition, and probably not surprisingly with only a few players, each of the current propositions is different, making them difficult for advisers and customers to compare and contrast. However, as more players enter the market, it is likely that one particular design of VA product will begin to dominate making comparisons far easier.

It should also be noted that all of the current providers (publicly at least) would welcome new players into the market in order to grow the market both in terms of size and credibility, i.e. they would gain a slice of a much bigger pie.

Of course, any new entrant needs to have the capability to manage the business it writes. For VA business, unless the liability is completely reinsured, it will need to have some form of hedging programme, although there are some specialist companies that can do this for the provider. The resource needed for this should not be underestimated and is probably one of the main reasons why the current providers are all part of groups that already had this capability. We believe that around 5 individuals are likely to be the minimum requirement for a new, small hedging programme, and that the largest firms in the US have more than 15 people in their hedging teams. As well as the personnel, huge computing power is required. For example, consider a company with 20,000 in-force VA policies wanting to run 1,000 stochastic scenarios each night for 50 different situations. This means one billion runs each night, before allowing for stochastic on stochastic!

5. Future variable annuity market scenarios

So where will the market go? All the factors above, and more, will drive the direction it takes and at present this is uncertain. It is easy to envisage possible scenarios as extreme as the product line proving a mere 'flash in the pan' or taking off and winning significant market share.

The table below provides a summary of the key drivers identified in section 4, and provides a future for each driver that supports both a bullish and bearish future for VAs.

Whilst the authors offer no 'crystal ball' prediction of the future, the likelihood is some of the factors prove positive and some negative towards VAs. The market has got to a size where it is unlikely to completely disappear, but is still some way from gaining a true 'mass market' position.

| | Flash in the pan | Slowly growing market | Mass take-up |
|-------------------------------------|---|---|--|
| Pension regulations | Remain as they are | Market remains in similar state to current position | More flexibility, addressing the specific VA issues |
| Solvency II | VAs become more capital intensive | | Conventional annuities significantly less attractive |
| RDR and distribution | Causes reduction in amount of advice | | Simple products boosted including basic VA |
| Communication | Level of information required confuses | | Value of guarantees able to be communicated simply and understood |
| Complexity and mis-selling concerns | Fears grow further over guaranteed products in general, plus focus on VA sales | | FSA review VAs and no issues arise |
| Increasing DC monies | Conventional annuities become more attractive to providers | | Regulation allows range of products, demand drives sales |
| Increasing life expectancy | Increases slow down, argument for longer investment horizon diminishes | | Annuity costs drive people to 'up-risk' |
| Flexible retirements | Predictions don't come true, retirement stays a full-stop event | | Demand for more flexible solutions grows |
| Distributor acceptance | Market remains fragmented with all products different | | Products standardise building trust and confidence amongst distributors |
| Consumer awareness | Continued low or non-existent consumer awareness | | VA becomes household name |
| Distribution channels | Remains IFA only | | High street distributors pick up product, direct sales of simple VA products |
| Cost of guarantee | Ongoing high volatility, low interest rates and tightening capital requirements | | Markets calm, capital regulations not onerous |
| Takeovers and withdrawals | Further withdrawals from market | | Current players remain committed and strengthen |
| New entrants | No new entrants or unknown names to UK market | | Major UK brands enter market |

