

## **BRIEFING NOTE**

### **With-profits endowment payouts**

“Policies increase in value in 2006”, “Payouts lower than in 2005”, “Final bonus rates increased”, “90% of mortgage endowment in the red”, “Annual bonus rates maintained”. These at first sight contradictory quotes have all appeared in early 2007 in life company press releases and the financial press.

This briefing note has been prepared by The Actuarial Profession to explain what is happening to with-profits bonus rates and what might be expected to happen to endowment policy payouts in the future.

To set the discussion in context, we look at how with-profits policy payouts are determined before considering specifically the factors affecting current bonus levels. A more detailed explanation of how different types of with-profits policies work can be found in our companion note ‘The Basics of With-Profits Policies’.

### **How are with-profits policy payouts determined?**

The payout from a with-profits policy is typically made up of several elements that differ depending on whether it is an old style ‘conventional’ policy or a more modern ‘unitised’ policy.

For a conventional endowment policy, the elements are the sum assured (SA) which is guaranteed to be paid on maturity or on earlier death, the attaching regular (or ‘reversionary’) bonus (RB) and the final (or ‘terminal’) bonus (FB). RBs, if any, are usually added annually throughout the lifetime of the policy and, once added, are also guaranteed on death or at maturity. FB, in contrast, is only added when the policy proceeds become payable.

On the other hand, the payout from a unitised with-profits endowment is made up of the value of units (VU) plus FB, if any. Each premium buys a number of units determined by dividing the premium, less any initial charges, by the current price of the units. The VU increases daily by the equivalent of the regular bonus rate. An additional amount may be payable on death before maturity.

#### *Asset shares and final bonus rates*

Asset shares are, by and large, the main tool insurers use to establish the fair maturity value of a policy.

The asset share is the notional amount, at a point in time, to which the policyholder’s premiums have grown, allowing for the addition of actual investment returns and other profits/losses and the deduction of charges and

expenses. In practice, the insurer will not calculate individual asset shares for each policy but will group similar policies together.

At maturity, the insurer will compare the SA + RB for its specimen conventional policies (i.e. the amount guaranteed to be paid as a minimum) with the asset share for those policies. Where the asset share is the larger, the insurer will determine a rate of final bonus which will largely make up the difference<sup>1</sup>. If the asset share is the smaller, final bonus will be nil and the insurer will effectively be paying out more than it has earned, which it can do by drawing on the assets which it holds for this purpose in excess of the aggregate of its asset shares.

For a unitised with-profits policy, a similar process is followed, with the value of units (VU) being compared with the asset share. Generally, no market value reduction (MVR) can be applied at maturity.

In practice, insurers construct a scale of final bonus rates, usually expressed as a percentage of SA + RB (for conventional policies) or VU (for unitised policies), with the rates usually dependent on the number of years a policy has been in force. Different scales will often apply for different types of policy. Scales may be reviewed annually or more frequently. For unitised policies, some insurers may review scales monthly.

Insurers may impose some limits on how much payouts on similar policies will change whenever final bonus scales are reviewed, although these can be quite large in some cases (e.g. 15% over 12 months).

If an insurer consistently pays above asset share to maturing policies, it will eventually run out of excess assets (or 'inherited estate'). Equally if an insurer continually pays below asset share it will build up its excess assets and could be considered to be short-changing the current generation of with-profits policyholders. Therefore, over the longer term, insurers are generally required to pay out 100% of asset share on average<sup>2</sup>.

At any point in time an insurer will in practice be paying out on different policies at various points in a fairly wide range either side of this 100% target. This may, for example, be because of the limits many insurers place on the maximum change in payouts on any occasion or simply because final bonus scales only change infrequently whilst the value of asset shares changes daily as the insurer's investments go up and down. This process is known as 'smoothing'.

### *Regular bonus rates*

As mentioned above, regular bonuses are added to a with-profits policy throughout its term and are guaranteed not to be taken away if the policy is held to maturity. RB rates are set taking into account expected future investment returns, the size of the policy benefits already guaranteed and the excess assets of the insurer (or at least of the with-profits fund in question).

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<sup>1</sup> Subject to the practices of the insurer with regard to smoothing (see later).

<sup>2</sup> A closed (to new business) fund with excess assets to distribute will have to pay out more than 100%. An open fund with excess assets may decide to do so.

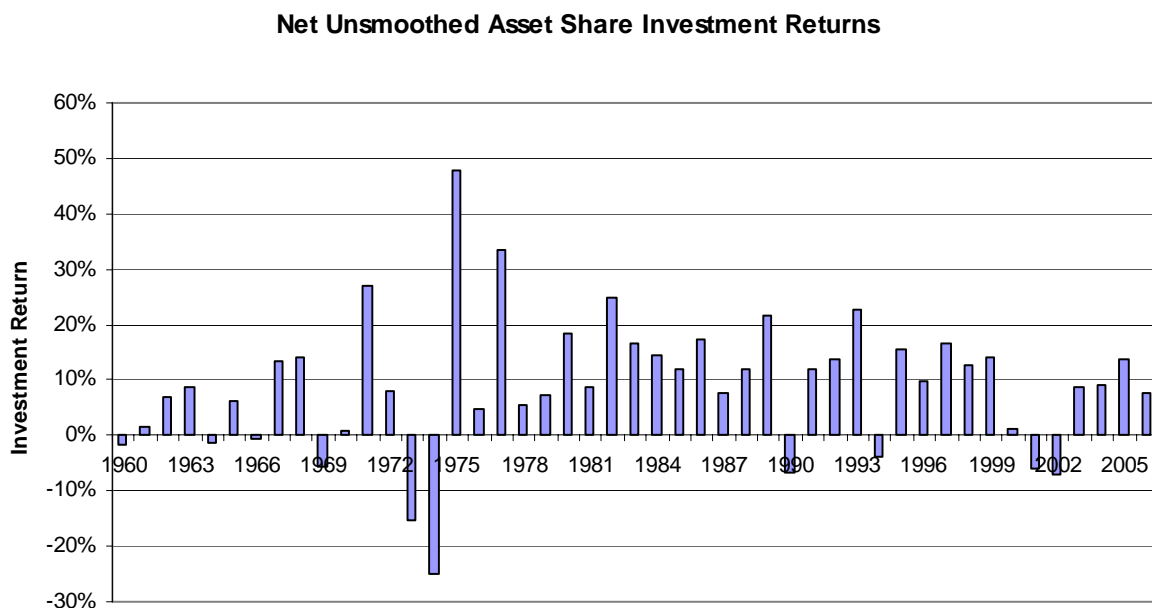
Adding RB increases the guarantees which the insurer has to meet. Higher guarantees tend to mean that insurers need to adopt a more conservative investment strategy in order to maintain a high probability of being able to meet them irrespective of future investment performance, so it can be ‘mixed blessing’ for policyholders if higher rates of RB are added. Their guaranteed benefits increase but their chance of higher future investment returns diminishes.

Many insurers will have a desired proportion of payout which they wish to provide as FB to give them adequate investment flexibility and will set RB at a level which, if their best estimates of the future come about, will achieve this.

### How have with-profits endowment payouts varied in the past?

Having explained ‘asset share’ and how it determines most with-profits policy payouts, we need to consider how actual asset shares have built up in the past and how they might progress in future to understand what has happened to payouts in recent years (and what might happen in future). We have taken a conventional 25-year endowment (of the type typically used to repay a mortgage) as an example.

If we look at the actual investment returns achieved on with-profits funds over recent periods we will see a long sequence of strong positive returns between 1975 and 1999, with only two years of small negative returns, 1990 and 1994 (see Fig. 1). However, since 1999 there have been three consecutive poor years and four years of positive performance (but lower than that of most of years between 1975 and 1999). A consequence of this has been that the asset share of a policy which commenced at the start of 1975 and matured at the start of 2000 would have been higher than that of a policy which commenced at the start of 1982 and matured at start of 2007.

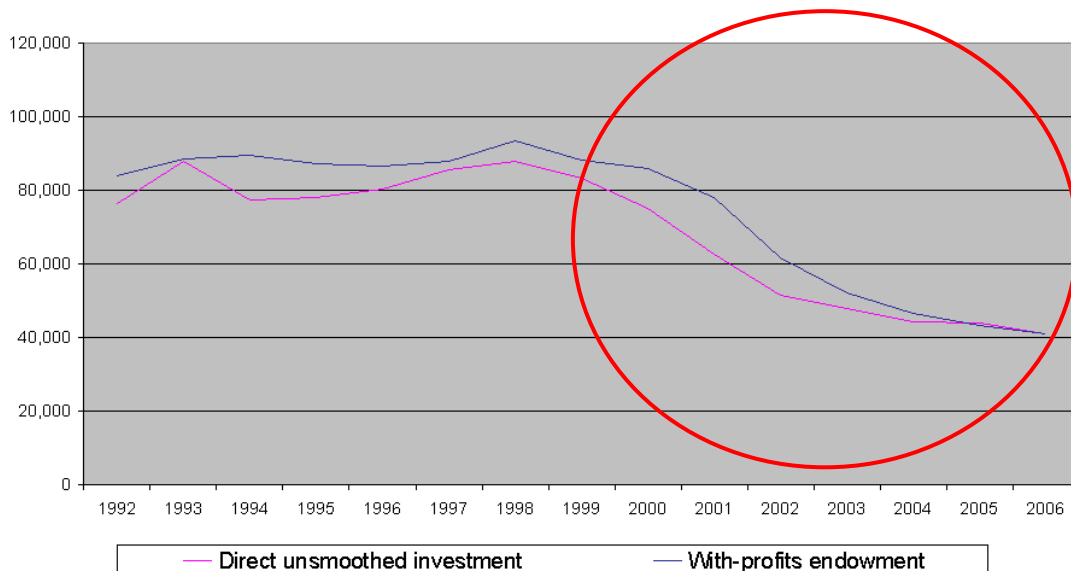


**Fig. 1** (Source: Tillinghast)

Looking at it another way, for a policy maturing at the start of 2000, the average investment return earned by the average insurance company<sup>3</sup> over the previous 25 years would have been over 14%p.a. whereas the return for a 25-year policy ending in early 2007 would have been around 10.4%p.a.

Of course, this effect is not unique to with-profits and, all other things being equal, the payout on a typical managed fund (i.e. where the value moves strictly in line with the value of the underlying investments) would also have fallen. In Fig. 2, we have compared the results of the average payouts on 25-year with-profits endowments with the average asset shares (i.e. the amount earned by investing directly in the same mix of investments, allowing for the same tax expenses, etc). The change in payouts from with-profits policies this decade has been a steady downward progression because of the smoothing effect – whereas the proceeds of direct investment would have initially fallen more steeply.

**Smoothness of with-profits endowment payouts compared with direct investment**



**Fig. 2** (Source: Tillinghast)

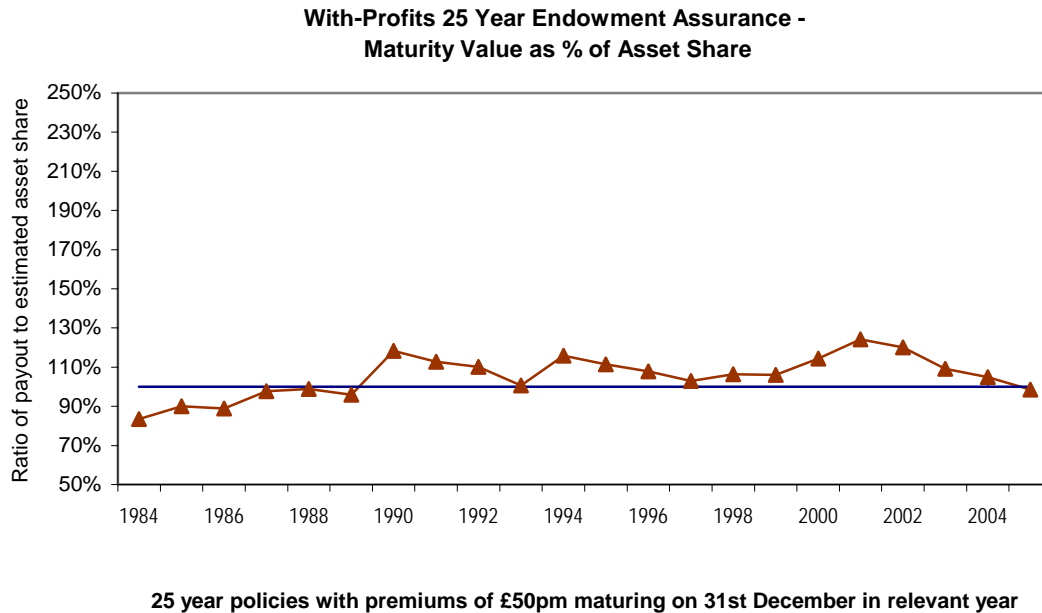
A comparison with a direct investment in shares alone would have shown a steeper rise up to 1999 and a steeper fall thereafter.

*Smoothing*

As explained earlier, many insurers smooth the impact of large changes in the value of their asset shares, often by limiting the change in payouts from one period to the next. This has been particularly true since 2000, as can be seen by the steadier falls in endowment payouts compared with direct investment.

<sup>3</sup> Because of the incidence of premium payments, the insurer’s charges, smoothing and other factors, this returns does not necessarily reflect that achieved by policyholders.

Hence, for many insurers, payouts have been running significantly above asset shares to the benefit of the maturing policyholder. Fig. 3 shows this effect has now been eliminated and that the average life company is now paying benefits based on actual asset share.



**Fig. 3** (Source: Tillinghast)

Fig. 3 shows that over the period 1984-2005, using the example of a 25-year endowment, the average payout ranged between about 83% and 124% of asset share. In 1997 the average was close to 100% but this had crept up to 124% by 2001. Reductions in policy payouts brought this back to very close to 100% by the end of 2005. This is exactly the sort of outcome that can be expected from smoothing.

It has sometimes been suggested, following the 2000-2002 fall in equity markets, that insurance companies were ‘holding back’ payments from policyholders in order to rebuild their financial strength. There is little evidence of this in Fig 3, which shows a consistent position of payouts close to or above asset share since the mid 1980s.

**How useful is it to compare payouts now with those on similar policies in the past?**

When payouts were increasing in the years up to 2000, life companies were content for payouts from the past to be compared with those of the present, as it *prima facie* painted a positive picture. Such comparisons have, as a consequence, become a seemingly inevitable part of the annual cycle, fuelled recently by the FSA’s requirement for the larger with-profits funds to publish certain payouts in their annual reports to the regulator.

It is interesting to note that this practice is much less common in comparing the performance of, say, unit trusts and pretty much unheard of when comparing bank or building society deposit accounts. Yet the accumulated value of 25 years’ savings in either of these alternative formats would be lower now than at

the end of the last decade, for precisely the same reasons as for with-profits endowments.

Underlying the use of these comparisons for with-profits policies alone appears to be the expectation that payouts on with-profits policies should somehow remain the same irrespective of the investment return the average with-profits fund can earn. This is not the case, any more than it is for unit trusts or deposit accounts. In every case, average performance will ultimately be driven by market returns.

What with-profits funds uniquely do, as Fig. 2 shows, is to smooth the impact of changes. However, this only delays the reduction in payouts – and the inevitable *quid pro quo* is that when the good times return, payouts must be expected to be slower to climb than for, say, a managed fund.

Making comparisons with past payouts may also lead to policyholders believing that today's payouts might be a realistic estimate of what they might expect to receive on a policy maturing in the future. It is important that policyholders do not come to expect this, as their eventual proceeds will depend primarily upon the returns the investment markets have delivered while the policy has been in force.

A much better way to anticipate future payouts is to consider the asset share built up out of the premiums paid to date, which take into account the historic investment returns since the policy started, and to roll this forward at an assumed future investment return, also allowing for the premiums still to be paid, and for the effect of the particular fund's smoothing practices. This is essentially what is done in the projected maturity values used to show whether a policy will repay a particular mortgage, for example.

Consistent with this approach, and a better way to compare the current relative performance of different with-profits funds, is to look at the net investment return, after adjustment for charges and other factors, used to increase the asset shares of typical policies in a year. For example, if a company applies a net return of 8% in a year, this can be compared directly with the return earned on a deposit account or on a unit trust over that same period, after making appropriate adjustments for the personal tax position of the holder. A proxy for this return is the increase in the surrender value of the policy, less the premiums paid in the year<sup>4</sup>.

## **Looking forward**

Bearing in mind the above caveats, we will now proceed to project the course of payouts on 25-year with-profits endowments.

Two main factors combine to make it likely that payouts on 25-year endowments will be lower in the future – a continued lower interest rate environment and lower equity backing ratios (EBRs – the proportion of the fund's assets invested in equities and property) for with-profits funds.

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<sup>4</sup> Although this might also reflect changes in the insurer's basis for calculation surrender values.

### *Low interest rate economy*

Investment returns from equities and fixed interest assets are expected to be lower in the future than they have been in the period 1975-1999. This is because the UK is expected to continue to be a low inflation economy and returns on investments do not need to compensate as much for loss of value through inflation. Therefore future payouts under with-profits policies are likely to continue to fall as these lower future returns replace the higher past returns in asset share calculations.

This is clearly also true for other types of investment and we would expect the course of 25-year investments in managed funds to follow a similar, although more volatile, track.

Lower inflation, however, means that despite lower nominal returns from policies, the purchasing power of the maturity proceeds will change much less than the maturity proceeds themselves.

### *Extent of investment in equities*

Although there has been a modest increase in the average fund's EBR in the last two years or so, most with-profits funds have significantly reduced their EBRs from the very high levels of the late 1990s. As equity markets fell in the early part of the decade, many funds took the decision to switch a proportion of their equity holdings into fixed interest assets to protect their solvency position and to better match guarantees underlying with-profits contracts.

The switch away from equities has meant that, although funds have benefited to some extent from the strong equity performance in the past four years, the level of returns reflect the lower EBRs adopted by the funds. The influence of equity returns on the overall fund return, therefore, is not as great as it has been historically. However, positive equity and property performance since 2003 has meant that most funds now have a more comfortable solvency position. However, the solvency position is not sufficiently strong to warrant the levels of equity exposure seen in the late 1990s and we can therefore expect most companies to continue to maintain lower EBRs in future.

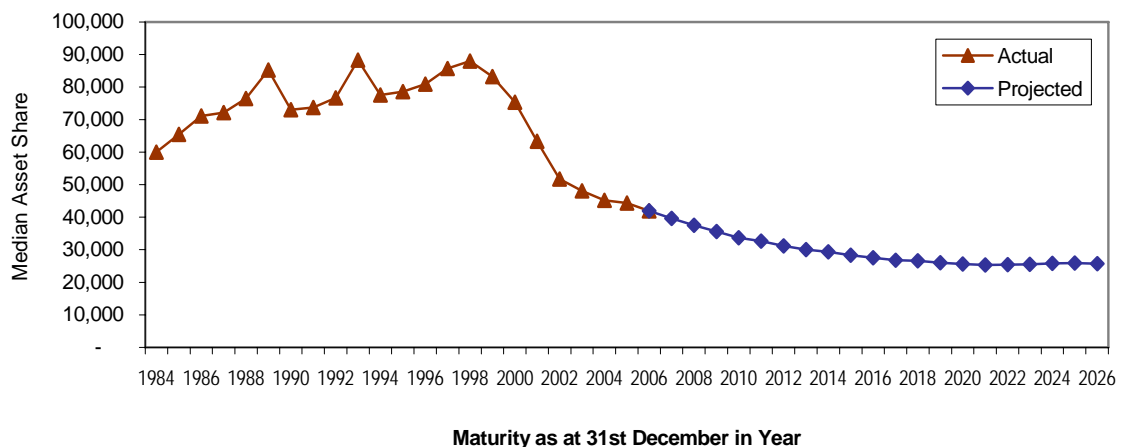
Given that over the long term equities would be expected to produce higher returns than fixed interest stocks, a lower EBR is likely to lead to lower payouts in the future.

Fig. 4 illustrates how asset shares for a £50pm 25-year endowment have changed since 1985 and how, on reasonable assumptions about the future<sup>5</sup>, are forecast to continue to do so into the future.

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<sup>5</sup> These include a 6% net of tax investment return each year.

### With-Profits 25 Year Endowment Assurance - Historic & Projected Asset Shares



**Fig. 4** (Source: Tillinghast)

It can be seen that payouts on 25-year policies are projected to continue to reduce (by around 3% a year for the next 15 or so years). As the projections of possible shortfalls on mortgage endowments are made on very similar assumptions, it is not surprising that firms whose policies are maturing in 2007 with no shortfall are projecting to have shortfalls in the future.

Shorter term policies (e.g. five-10 years) will have different patterns of future payouts relative to current levels, which will already reflect lower returns earned more recently, but not the very high returns of the 1980s and 1990s. In some cases, payouts may actually be rising as a result of the 2003-2006 investment performance.

### Implications for mortgage endowment shortfalls

For the last few years, insurers have been providing customers with projections of possible mortgage endowment shortfalls. The projections are typically based on a future net of tax investment return of 6% each year. A lower rate than 6% may be used by some insurers if the EBR is low.

The actual net investment return achieved in the last four years (see Fig.1) has been in excess of 6% and consequently it is expected that projected shortfalls will be smaller than previously illustrated for the average fund.

### Is it correct to say that bonus rates are falling?

It is common for industry commentators to refer almost interchangeably to falling payouts and falling bonus rates. However, payouts can be different from one year to the next without regular or final bonus rates changing. As shown below, this is because two policies maturing a year apart will have had different amounts of regular bonus added in the past.

As explained earlier, payouts on conventional with-profits policies are made up of the sum assured (SA), regular bonus (RB) – which has been added in the past, and a final bonus (FB).



In their earlier years, most 25-year policies maturing today would have had regular bonuses added at quite a high rate (e.g. 5%p.a.)<sup>6</sup>. But the current rate of accrual is much lower (e.g. 2%).

Consider two similar policies with a sum assured of £10,000, one maturing a year after the other. Assume one received 15 years of regular bonus at 5%p.a. (of the SA) and 10 years at 2%p.a., and the other 14 years and 11 years respectively (because the insurer reduced its regular bonus rate from 5% to 2% 11 years ago).

The RB on the first policy would be  $15 \times 5\% + 10 \times 2\% = 95\%$  of the SA (i.e. £9,500) and on the second would be  $14 \times 5\% + 11 \times 2\% = 92\%$  (i.e. £9,200)

If the insurer calculated that the same final bonus rate, say 30% of the sum assured (i.e. £3,000), was appropriate in both years, then the payout on the first policy would have been £10,000 + £9,500 + £3,000 (i.e. £22,500) and £10,000 + £9,200 + £3,000 (i.e. £22,200)<sup>7</sup> on the second policy.

So the RB rate has been maintained unchanged at 2% (for an 11<sup>th</sup> year) and the FB rate has been left unchanged at 30%, yet the payout would be 1.3% lower on the later maturing policy. What is lower is the total amount of RB added while the policy was in force.

This is likely to be the explanation of the apparently contradictory statements that bonus *rates* are not changing (or even in some cases being increased slightly) and yet payouts are still lower than on otherwise identical policies which matured in earlier years.

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<sup>6</sup> Please see our companion note *The Basics of With-Profits Policies* for an explanation of how regular bonus on conventional with-profits policies adds to the return and why a 5% bonus rate is worth considerable more on a regular premium conventional policy than 5% interest on a bank account.

<sup>7</sup> Those readers who have followed our explanation of how final bonus rates (and so total payouts) are derived by reference to 'asset shares' will realise that the total payout will only fall from £22,500 to £22,200 if the average investment return earned while the second policy was in force is less than that earned while the first policy was in force. If it had been identical, the FB rate applying to the second policy would have had to increase to 33% to ensure that the payout was also £22,500.

## Summary

With-profits policies have delivered good returns for policyholders in the past and continue to provide a comparable return to other types of investment with a similar risk profile. Year-by-year, the underlying value of in-force policies continues to grow in any year in which, after charges and other factors, the insurance company earns a positive return on its investments.

However, because the average returns on investments generally have reduced as a period of low inflationary expectations has emerged, payouts on 25-year endowments are lower now than in the period 1985-1999. This is also a feature of regular investments over the same period in other vehicles, such as unit trusts or deposit accounts.

As long as the outlook for inflation and future returns remains low, it is expected that payouts on longer term policies will continue to reduce steadily - although that on shorter term policies may well be stable or even rising. In each case, the policyholder receives approximately what has been earned while his or her policy has been in force.