Subject F102 – Life Insurance Principles
June 2010

Examiners' Report

General Comments

It was disappointing to see the number of candidates who presented themselves for the examination who were clearly not well enough prepared.

A common problem for most candidates was that answers were often too cryptic and not well enough explained to score marks. Generic statements also failed to gain credit, such as "model, parameter and random fluctuations risk".

Comments relating to specific questions

Question 1
- (ii): Disappointing. Very few candidates realised that this was primarily meant to be a unit-pricing question rather than an investment question.

Question 2:
- (i): Disappointing. The vast majority of candidates thought that bonus declarations do directly affect asset shares. Most candidates spent more time discussing the first half of the question than the second, despite the fact that it says "State, with a reason".

Question 3:
- (i): A standard bookwork question, handled well by most candidates (with many getting full marks).
- (ii) & (iii): Generally poorly answered, with too few points being given by most candidates.

Question 4:
- Very poorly answered on the whole.
- A number of candidates also went into a lot of detail on how to best set the valuation assumptions, despite the question not asking for that information.
- "Monitoring", per se, will not remove risk.

Question 5:
- Not a difficult question.
- Many candidates answered (i) by only looking at the model that would be used to calculate the retention, and thus lost out on the marks allocated for other points.

Question 6:
- (i): Bookwork. Well answered by most.

Question 7:
- Some candidates discussed an increase in EV as opposed to the value of the in-force only as asked for.

Question 8:
- Many candidates failed to write enough to get good marks.

Question 9:
- In (i): No credit was given for items which only indirectly impact design/distribution, e.g. investment, reserving, solvency, etc.
- In (ii): No credit was given for statements such as "term assurance is a protection policy and so policyholders won't expect a surrender value". It is not clear, particularly in a new market, what policyholders might understand or expect from a particular policy.
- In (iii): Many candidates seemed unclear that risk is related to the unpredictability of items (e.g. mortality, expenses) rather than their absolute level per se. Candidates were penalised for making blatantly incorrect statements, e.g. "as there is no withdrawal benefit there is no withdrawal risk".
- (iv) & (v): Fairly well answered on the whole.

Possible Solutions

Question 1

(i)   An offer pricing basis is the pricing basis used when the company is a net creator of units.
Under this basis, both the bid and offer prices are based on the appropriation price, i.e. the total cost of creating a unit.

A bid pricing basis is the pricing basis used when the company is a net canceller of units.
Under this basis, both the bid and offer prices are based on the expropriation price, i.e. the net receipt when cancelling a unit.

(ii)   May be advantageous if:
- The life office loads for lower trading expenses than would be incurred by an investor investing directly in the underlying market (where they will pay for trading on the purchase, and again on the sale, of the asset).
- The life office may be using a favourable pricing basis at the time of paying the premiums and receiving the benefit, e.g.
    - If units are bought and sold under the same pricing basis i.e. both appropriation/expropriation price), the policyholder is effectively not paying trading expenses on the underlying asset
    - If they buy units under a bid basis and sell under an offer basis, they actually gain.
- It may also be the case that the trading expenses paid by the life office, as a large investor, may be lower than those that an individual policyholder would pay if trading in their personal capacity.
- There may be tax advantages of investing through a life office.
- These gains need to be offset against the other initial/renewal charges which the life office is likely to have that would not be incurred when trading directly in the underlying assets.

Question 2

(i)   The bonus philosophies should not have a direct effect on the asset shares, since asset shares comprise actual cash flows (which bonus declarations are not).

The general principle applied by both companies would be to bring the final benefit payable under a policy (i.e. initial sum assured plus all bonuses) broadly in line with the earned asset share for the policy.

The low and stable reversionary bonuses imply that Company A distributes most of the surplus as terminal bonus, so would use asset shares primarily to decide on terminal bonuses.

Company B distributes more of the surplus over the life of the policy. It therefore needs to monitor asset shares more closely when deciding on reversionary bonuses, to ensure that the sum assured plus reversionary bonuses is close to, but does not exceed, asset share on maturity.

(ii)   Company A:
- By weighting terminal bonuses more heavily, they are delaying the distribution of profit for as long as possible.
- This frees up capital, so that the company is able to pursue a less constrained investment strategy.
- This in turn should lead to higher expected returns, which can then be passed on to policyholders in the form of higher benefits.
- Smaller risk of company insolvency.

Company B:
- By distributing more of the profit as it arises, policyholders have greater certainty about the final benefit that they will receive.
- This may assist in their financial planning
- as well as greater protection against a fall in the market, since previously declared bonuses are guaranteed.
- Fewer cross-subsidies.

(iii)   Under revalorisation, bonuses are granted by a % increase in reserves (and usually the same % increase in premiums and benefits).
It is common to divide the surplus between the investment surplus, most of which would be distributed to policyholders, and surplus from other sources, which may be entirely for shareholders.

Since the surplus is distributed as it arises (with little or no deferral), this method is more similar to the philosophy of company B.
Further, the ppn of the surplus to be distributed is specified upfront.

Question 3

(i)   Principles:
- The reserves should cover all liabilities arising from all contracts.
- The reserves should be calculated prudently, allowing for all relevant liabilities (incl. all guarantees and options).

- The reserves should take credit for future premiums if these are contractually due to be paid.
- The valuation should be prudent, not best estimate, and so the basis should contain margins.
- The valuation of the liabilities should be consistent with that of the assets.
- Appropriate approximations or generalisations may be allowed.
- The interest rate used for calculating the reserves should be chosen prudently, taking into account the currencies, yields and reinvestment yields on the assets.
- The demographic, withdrawal and expense assumptions used should all be prudent, taking into account the type of insurance and country of residence, but the expenses can be on an ongoing business basis.
- If no explicit allowance is made for future bonuses then they must be allowed for implicitly by a suitable adjustment to the valuation interest rate.
- If the valuation method itself defines the amount of expenses assumed (*eg* the net premium method) then the amount implied must be no less than a prudent estimate of the relevant expenses.
- The valuation calculations conducted over time should not suffer discontinuities arising from arbitrary changes to the basis, however
- The basis should be active and appropriate to current circumstances.
- The valuation method used should recognise the emergence of profit appropriately over the policies' lifetimes, so as to match the assumed future regular bonus.
- Valuation bases and methods should be disclosed.

(ii)   Market-consistent valuation:
  - The rationale for such valuations include the emergence of finance-related products, e.g. index-linked products, and that the approach allows comparability of results as the method is less prone to subjective margins or manipulation.
  - In such an approach future unknown parameter values are generally set to be consistent with market values, where such a market exists.
  - In theory the market-consistent value of a liability is the price that someone would charge for taking on the responsibility for the liability, in a market in which such liabilities are freely traded.
  - In the absence of such a market, an approximate approach will need to be taken.
  - Future investment return:
    - ➢ Base on a future risk-free return irrespective of assets held (rather than a risk-free rate for gilts plus a margin for equities).
    - ➢ The argument being that, in the long term, the equity margin should also be combined with an increased risk of not achieving the increased yield – the net result being the risk-free rate of return.
  - For the immediate annuities:
    - ➢ Project expected cash flows, allowing appropriately for mortality.
    - ➢ Then, either:
      - ▪ Value these cash flows (as if they were known and certain) as the maturity proceeds of a series of zero-coupon "risk-free" bonds of matching terms.
      - ▪ i.e. devise a portfolio of assets whose cash flows replicate those of the liabilities, and then the current market price of this "replicating portfolio" will be the market-consistent value of the liabilities.
    - ➢ Or:
      - ▪ Equivalently we could produce the (same) market-consistent valuation by discounting the cash flows at current risk-free rates of interest.
      - ▪ The appropriate discount rate to achieve this would be the market yield on such bonds.

- ▪ Different discount rates can be used for discounting cash flows at different durations if necessary to reflect current market yields.
  - ➢ The risk-free interest rates (or equivalently the market values of the replicating asset portfolio) may need adjustment for any short-term anomalies in the market at the present time.
  - ➢ Extrapolation of market prices will be required for interest rates that fall beyond the maturities observable in the market.
- Mortality:
  - ➢ There is unlikely to be a highly liquid active market for mortality risk, so it is not possible to determine a unique and objective market-consistent mortality assumption.
  - ➢ Instead, the mortality assumption is likely to be set by reference to industry statistics, internal experience investigations and information from reinsurers.
  - ➢ The assumption should include appropriate allowance for future mortality improvements.
  - ➢ Appropriate margins will need to be included, reducing the mortality rate, to allow for uncertainty.
- Expenses & inflation:
  - ➢ The expense assumption might be determined by reference to expense agreements available in the market, for example from third party administration companies,
  - ➢ as well as from industry statistics and features specific to the company's own experience.
  - ➢ The difference between the current market yields of equivalent fixed-interest and index-linked bonds gives an indication of the market's expectation for future inflation.
- Include a mismatching reserve if assets were not perfectly matched to liabilities, and the assumptions should be based on "best estimates" increased by appropriate margin to allow for uncertainty.
- Possibly also provide for an operational risk reserve.

(iii)   Supervisory reserves & solvency capital are normally included because:
- The requirement for statutory reserves and solvency capital will often result in an initial capital strain.
- There will therefore be a need for capital from external sources e.g. shareholders (in a proprietary office) or with profit policyholders (in a mutual).
- The providers of the capital will normally want a return on this capital e.g. risk discount rate and this is conveniently allowed for in a cashflow model.
- The profit flows will be altered, and the ultimate profitability will be impacted by this need for further financing.
- The requirement for capital may restrict a company's capacity in other functions of its development and on-going operations
  - ➢ e.g investment strategy may be restricted by size of free assets.
- These components will be particularly important when completing model office projections into the future to identify calls on capital in the future.

Question 4

Mortality:
- Underwriting could be revised so as to mitigate mortality risk.
- Set up a mortality fluctuations reserve.

Problems:
- The additional cost of strengthening underwriting.
- The impact on sales of additional underwriting.
- The company may not have sufficient free assets to handle setting up additional reserves.

Investment return:
- Transfer the assumption risk to an outside party, e.g. by purchasing investments with guaranteed investment returns.
- If the company uses these for investments, you can fix the assumption to match the investment returns that are guaranteed and the risk around this assumption is removed.
- If the products have investment guarantees additional assumptions will be required, e.g. likelihood of guarantee biting.
- Investment guarantees could be removed from the product design where possible, e.g. selling with profit rather than non-profit products.

Problems:
- Investing in assets with guaranteed benefits may not provide the highest expected returns.
- It might not be possible to radically change product design in this way.

Expenses:
- Products could be designed in a way that they are simple to administer, thereby reducing the risk of expense overruns.
- Could consider outsourcing all or part of the management of the business.
- Could invest in assets which remove/minimize the risk associated with expense inflation.
- Remove cross-subsidization between policy types (or between large & small policies) to remove the risk associated with changes in the mix of business.

Problems:
- It is unlikely that outsourcing agreements would be able to be entered into for extremely long time horizons and even more unlikely that outsource providers would be prepared to indemnify you against long-term inflation.

Commission:
- If you can get the intermediaries to agree to a clawback of commission that matches how you earn back the income over the lifetime of the policy, you would remove any risk around the commission assumption.

Problems:
- Competitive pressures will imply that it is unlikely that you would get intermediaries to readily accept this clawback approach.
- Adopting this approach would likely make your company extremely unpopular with intermediaries.

Withdrawals:
- Could use conservative assumptions to protect against non-recovery of expenses on early withdrawal.
- If withdrawals are monitored at an individual intermediary level, poor experience can be ameliorated by appropriate financial incentives based on withdrawal experience.

Problem:

- Conservative assumptions do not remove the risk associated with withdrawals.
- Regulation may not permit appropriate intermediary incentives.

Margins:
- You can introduce safety margins for each of the assumptions or you can allow for an overall safety margin across all the assumptions (or you could do both – which would be conservative).

Problems:
- You may be restricted by legislation as to what additional margins you can include
- The tax authorities would also not want to see you using too large a margin as it would delay the payment of taxes due to them (assuming the business is profitable)

General (relating to policy design):
- Risks can be reduced by appropriate policy design to have policyholders sharing in the risk, such as:
  - Increase proportion of with profit policies
  - Introduce unit-linked business, which would allow variable charges (e.g. mortality or expense)

Problems:
- May not be easy to change business mix in this way.
- Office has no experience of unit-linked business, and it may be a difficult to build market share.

Question 5

(i)   Appropriate level of retention
- Analyse your in-force book of business to determine the distribution of expected claims, e.g.:
  - the average sum insured (& whether policies have sum insured increases built in)
  - type of policy (whole of life or term assurance)
  - average age of policyholder, smoker status, etc.
- Decide whether your future new business is likely to be similar to your in-force business, and if not what impact this will have on your risk.
- Investigate how appropriate the existing level of reinsurance has been,
- and how profitable it has been for the reinsurer.
- Speak to the board to get an indication of its appetite for risk.
- Analyse the level of the company's free assets (high free assets would support higher retention limits)
- Ascertain the importance attached to stability of its free asset ratio (this could reduce the freedom provided by the free assets)
- Ascertain the confidence (& familiarity) of your company in the underwriting of the book of business – the more confident it is the less the need for reinsurance.
- Establish how competent the company's claims department is at identifying invalid claims.
- Determine the terms on which reinsurance can be obtained (incl. any profit-sharing) – as price is obviously a factor to consider in determining your retention.
  - and the dependence of such terms on the retention limit (it may be possible to vary retention limits slightly to take advantage of favourable rates)
  - the existence of a profit-sharing agreement in the treaty

- Check the impact on the company's regulatory capital requirements of increasing the retention limits.
- Perform a stochastic simulation to obtain probabilities of total loss, for example, using retention strategy X the company should only suffer losses of more than x once every y years.
- Attempt to determine the likely impact of the various options on expected profitability.
- Also consider the opinions of the reinsurer, as they should have experience in this regard.

(ii) Which reinsurer to choose
- Ability (capacity) of reinsurer to provide the required cover.
- Since there is some cost to changing reinsurers, how well has your existing reinsurer served you over the last five years.
- Any past knowledge/experience of other reinsurers.
- Should you go with only one reinsurer (administratively simpler) or more than one (more access to expertise, and keeps reinsurers on their toes)
- Cost of reinsurance from each company will be a key factor.
- What expertise is each reinsurer willing to bring to the table.
- Does any reinsurer have a particular expertise in your target market.
- What terms and conditions does each reinsurer impose, e.g. underwriting and claims referral limits, onerous administrative conditions.
- The financial strength of the reinsurer.
- Do the reinsurers offer profit sharing, and at what level.
- Is the reinsurer in the same city as you. If not, is this an issue.

Question 6

(i) Principles:
- Consider any legislative requirements/restrictions and market practice in the country.
- The company will want to ensure that its surrender value scales are affordable. Hence, on average, the maximum surrender value would be the asset share (after deducting the costs of the surrender).
- The company should treat withdrawing and continuing policyholders equitably.
  - ➢ Thus on surrender of a non-profit contract the office may try to recoup the same amount of profit as it would had the contract not been surrendered – this is not always possible (or desirable).
- The values should be consistent with policyholder's reasonable expectations (PRE). This could include:
  - ➢ consistency with quotations at outset
  - ➢ reasonableness of early surrender values relative to premiums paid
  - ➢ running smoothly into maturity values (which may on occasion involve paying more than asset share – which should only be done where absolutely necessary owing to the principle of affordability)
  - ➢ having regard to competition and auction values (if any)
- Practical Issues:
  - ➢ the method should be simple to apply and easy to explain
  - ➢ the scale should not change too frequently owing to the administrative work involved

> anti-selection should be avoided, and surrender values should take account of financial conditions
> surrender values, in conjunction with new business premiums, should not encourage lapse and re-entry
> surrender values should be stable, i.e. small differences in policies should produce small changes in surrender values
> whether any "blending" is required between the old and new surrender values

(ii)   Why would a policyholder want to make a policy paid up
   • They can't afford the cover anymore, but they don't want to lapse the policy and have no cover.
   • They may not need the full sum insured anymore (circumstances may have changed) but reduced cover is adequate.

Why would an insurer permit this
   • They want to prevent the policyholder surrendering completely, and thus will continue to make some profit on the reduced sum insured.
   • They still have the policyholder on their books which may allow them to do further business with them in future.
   • As the policy remains in-force it reduces the impact of selective withdrawals.
   • It avoids the insurer having to realise assets at an inappropriate time.

Question 7

Possible reasons:
• Experience may have been better than expected (i.e. a positive experience variance).
• Substantially more new business sold in the year. This will add to the value of in force provided the business is profitably priced.
• A change in valuation basis. Changes in basis assumption may result in an increase in the value. For example, higher assumed investment return may result in higher future margins and hence a higher value of in force.
• Reduction in the discount rate used. The lower the discount rate used to calculate the value of in force, the higher the value will be.
• Exchange rate movements. A weakening of the local currency will result in a higher value of in force of off shore business.

Question 8

(i)(a) Longevity risk.
   • The risk is that the home-owner lives longer than expected, giving more opportunity for the outstanding loan to grow beyond the value of the home.
   • Increased longevity also increases the risk that the house will not be properly maintained, and hence its value will not grow as anticipated.
   • In such cases the premium charged will become insufficient to cover the cost of the NNEG.

  (b) Anti-selection risk.
   • Home-owners who see the value of their home falling behind the outstanding loan amount at the end of the initial 5-year period may extend their loans for long periods because they are getting the NNEG for free after the initial 5-year period.

- Such people are also less likely to continue adequate maintenance on the house, exacerbating the problem.
- Home-owners with houses which are falling behind the growth in the outstanding loan are more likely to have the guarantee biting.

Alternatively:
- Home-owners who are in good health at the end of the initial 5-year period may extend their loans for long periods because they are getting the NNEG for free after the initial 5-year period.
- Healthy lives are likely to benefit more from the guarantee on death as the interest charged on the loan may be higher than growth in the value of the home. Hence, the guarantee is more likely to bite in the case of healthy lives.

(c) Interest rate relative to growth in house prices:
- The risk is that prime overdraft rates increase at a rate such that outstanding loans increase at a higher rate than expected relative to house prices.
- This makes the probability of the guarantee biting higher and hence the expected cost of the NNEG would be higher than expected.

(ii) To use stochastic modelling to calculate the premium for the guarantee:
- We need to calculate the cost of the guarantee. The premium would be this cost plus any expense and profit loadings.
- The value of the NNEG is the larger of 0 and
$$L_0 \times (1 + i)^{n(x)} - H_0 \times (1 + g)^{n(x)} = L_{n(x)} - H_{n(x)}$$
  where:
  - L_0 = the value of the loan at inception
  - i = the annual interest rate on the loan (i.e. prime + 2%)
  - H_0 = the value of the home at inception
  - g = the annual growth rate in the value of the home
  - $n(x)$ = the time to the final maturity date (or earlier death of the home-owner aged x) in years
  - $L_{n(x)}$ = the value of the loan at the final maturity date
  - $H_{n(x)}$ = the value of the home at the final maturity date
- A stochastic model of i and g can be used to simulate $L_{n(x)}$ and $H_{n(x)}$
- Parameters need to be modelled consistently to allow for correlations/interactions.

- A large number of simulations (e.g. 10 000) will be needed to obtain reliable estimates of $L_{n(x)}$ and $H_{n(x)}$.
- For each simulation a value of the NNEG will be generated.
- The total cost generated is divided by the number of runs to obtain the average cost of the NNEG.
- This cost will be discounted for n(x) years to obtain the present value of the NNEG.
- Repeated simulation will generate the probability function distribution of the present value of the cost of the NNEG.
- The premium will be the expected value of this simulated cost.
- This cost plus a margin then needs to be loaded into the loan charges for the first 5 years as level premiums.

(iii)   Appropriateness of using the loans to back annuities:
- The nature of the liabilities.
  The liabilities (annuity payments) are guaranteed in monetary terms. The cash flows from the assets vary with changes in the prime overdraft rate.

  It might be expected that this rate is reasonably stable in the medium to long-term, in which case the return on assets would provide a reasonably good match for the nature of the liabilities.
  However there is no guarantee that this will be the case.
- Term of liabilities.
  The discounted mean term of the book of annuities may be quite long, with some liabilities being very long tailed.
  The asset may provide frequent cash flows from paybacks of loans, the first of which is expected in 5 years' time. However, you might expect many loans to roll over until the death of the lender.
  The asset may therefore not be unreasonable as a match for the annuity book.

  However, it should be noted that the longevity risk of the annuities and that on these bonds (as outlined in (i)(a) above) may be additive rather than complementary.
- Currency of liabilities.
  The liabilities & asset returns are all in the local currency
  It is therefore a good match.
- Maximising investment returns.
  You need to compare the risk/return profile on the assets to alternative assets available in the market. In the South African (for example) market, there are little (or no) long-tail assets available that will match prime + 2% per annum.

  It therefore may provide a high yielding alternative to money-market type investments available to match the annuity cash flows.

Question 9

(i)   Possible contract design regulations:
- Types/designs of policies permitted
- Max/min premiums/charges
- The requirement for certain benefits such as surrender values or paid-up values – which are not common on the intended contracts
- Prevention of certain exclusions

Possible distribution regulations:
- Distribution channels which may be used
- Commission levels
- Minimum broker training and registration requirements
- Advertising restrictions
- Certain key information (or advice) which must be provided to policyholders or potential policyholders
- Restrictions on benefit illustrations
- Cooling-off periods

(ii)   Reasons why withdrawal benefits are unlikely:
- Term assurances have low reserves, as there are no maturity values and only death benefits need to be reserved for, and so there is little scope to pay worthwhile withdrawal benefits.
- Such a benefit would increase the risk of selective withdrawals.
- Offering such a benefit would increase withdrawal rates, which reduces profitability
- Premiums would need to increase if additional benefits were to be paid, reducing the effectiveness of the product as the cheapest form of life cover.

(iii)(a) Mortality:
- the risk is that the office underestimates mortality
- this is the most significant risk for these term assurance products
- the office has no experience in this particular market and so needs to source appropriate assumptions elsewhere, e.g. from a reinsurer
- underground mining is hazardous, making it more difficult to estimate mortality
- the extent of the risk will depend on how applicable the data used are
- the lack of underwriting will add to the uncertainty in estimating mortality
- anti-selection may be a risk owing to the lack of underwriting
- selective withdrawals are also a risk
- accumulations of risk, e.g. insureds all exposed to a single major underground incident, or from living in high-density housing

Expenses
- the risk is that the expense loadings are too low
- the level of expenses will be quite uncertain because the office is entering a new market (admin. costs, development costs, etc.)
- commission structures will be known and can be loaded for
- owing to the uncertainty associated with new business volumes, it will be difficult to load for fixed expenses accurately
- changes in the mix of business (e.g. between larger & smaller policies) from that anticipated is also a problem as there are likely to be cross-subsidies involved in the expense recoupment
- the costs associated with premium collection may be significant, and may increase above price inflation
- higher than anticipated inflation may be a big concern as the terms of cover may be very long and expenses are likely to constitute a major part of the total premium

- with small policies there may come a time when expenses exceed the premium being collected

Withdrawals:
- the greatest risk of loss is associated with early withdrawals when asset shares are negative
- even though no withdrawal benefit is provided this can be a significant risk
- withdrawal rates may be higher than expected, and more difficult to predict, due to:
  - policyholders being financially unsophisticated and thus more likely to buy something which is not ideal for them, or may be unaffordable
  - premiums being collected weekly in cash

- the decreasing nature of the benefit (and level premiums) means that near the end of term the value of future premiums may exceed the value of future benefits, implying that the office will lose profits from withdrawals at that time and that such withdrawals are likely
- the company has no experience of withdrawal rates in this market which exacerbates the risk
- higher withdrawals than expected will mean higher per policy expenses for policies remaining in force

(iv)   Market share may be being lost due to:
- Premiums may have become uncompetitive
- May not have the "bells and whistles" on their contracts which competitors have, e.g. conversion options
- More, or more effective, marketing by other companies
- Competitors may offer sign-up gifts or loyalty programmes
- May pay lower commission than major competitors
- The company may be focusing its efforts on other products
- Reputation for inefficient admin (to deal with policy queries, etc.)
- Reputation for inefficient payment of claims
- Their target market may have low average disposable income and may be less able to afford assurance under present economic conditions
- Underwriting may be stricter than competitors' underwriting
- Loss of reputation in the market, e.g. scandal
- May have smaller free assets than major competitors and thus appear more insecure
- May not be in a position to expand new business:
  - ➤ may not have sufficient capital, or
  - ➤ may not have the staff/systems to handle expansion without jeopardising service levels

(v)   Possible actions:
- consider whether premiums can be reduced as non-profit term assurance is sold almost entirely on price
- expense savings may be made, e.g. reduce commission
- reduce the profit required per policy in order to sell more
- may even consider selling policies at a loss to increase market share, e.g. if the market is at the bottom of a cycle
- reinsurance may offer attractive risk premiums which could allow the term assurance premiums to be reduced
- reduce the level of underwriting (e.g. review medical limits) to improve cost-effectiveness and marketability
- introduce "bells and whistles" to distinguish product in the market, for example include a conversion option to a savings contract at the end of the term
- introduce sign-up gifts or loyalty programmes
- increase commission rates in order to make more sales
- introduce more (or more effective) distribution channels
- increase advertising budget, e.g. improve brand awareness
- consider ways to expand target market, e.g. such as the current proposal
- improve after sales service and staff training to improve name and reduce lapses
- reinsurance may offer financing on good terms, which could provide capital for expansion if this was a constraint