Subject SA2 — Life Insurance Specialist Applications

EXAMINERS' REPORT

September 2008

Introduction

The attached subject report has been written by the Principal Examiner with the aim of helping candidates. The questions and comments are based around Core Reading as the interpretation of the syllabus to which the examiners are working. They have however given credit for any alternative approach or interpretation which they consider to be reasonable.

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Chairman of the Board of Examiners

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Comments

Individual comments are shown after the solutions to each part question that follow.

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(i) The areas of discretion would be in respect of with profits business only.

The PPFM should cover:

Regular bonuses

The normal approach to setting regular bonuses. This includes smoothing of regular bonuses from year to year and the frequency and timing of setting regular bonuses.

The approach to setting regular bonuses in adverse circumstances, such as significantly reduced solvency would also be covered.

For any of the above if different approaches are used for different types or tranches of business, this should be made clear.

Total payouts

How asset shares are used to determine final payouts would be described including the method of calculation of asset shares.

The frequency of update of assumptions or methodology used in calculation of asset shares would also be covered.

The method of allowance for profits arising on the without profits business written in Fund B would be included.

The document would also cover the desired relative proportions of regular and final bonus, the allowance for enhancements to payouts from any inherited estate and the approach to smoothing of final bonuses and/or payouts (for example, the maximum change in payout or terminal bonus percentage).

Target ranges of unsmoothed asset shares and the practice regarding cross-subsidies between different generations and groups of policyholders would be discussed.

The normal frequency and timing of setting final bonuses and the approach to setting final bonuses in adverse circumstances would also be shown.

Situations in which a market value reduction could be used and how a market value reduction would be determined would be described.

How surrender values are determined and changes that can be made to surrender value calculations over time would also be covered

Other changes that can be made to early retirement terms would be described as would the practice on switching between unitised with profits and unit-linked funds.

Investment strategy

A statement of overall investment strategy for the with profits fund would be included. Detail would be given on the types of asset in which the assets backing with profits business can be invested, limits on the relative proportions of each type and circumstances under which these limits could be varied or breached.

The extent of asset / liability matching and the use of derivatives would also be described.

The document would also highlight counterparty exposure limits and any other overall investment objectives.

General business risks accepted, for example strategic investments, would also be shown.

The document would highlight the investment managers used.

Charges and expenses

How any discretionary charges are set would be set out, e.g. charges for guarantees, options or smoothing.

Apportionment of expenses between Fund A and Fund B would be discussed along with the apportionment of expenses between product types within Fund B and the treatment of exceptional or one-off expenses.

Management of the inherited estate

This section would set out purposes of the inherited estate, restrictions on its use, possible actions if the inherited estate was higher or lower than certain amounts and the investment strategy of the inherited estate.

Closure to new business

Any amendments made to with profits management if the company was to close to new business would be described. Current business plans regarding new business volumes and/or possible closure would be set out along with how it might treat the with profits and without profits (written in the with profits fund) new business separately.

Shareholder profit

The allocation of profit between shareholders and policyholders to the extent that this is subject to some discretion. For example, where it is influenced by the valuation rate of interest.

In addition how shareholder tax is reflected e.g. charged to the estate would also be described.

Part (i) was generally well answered. Most candidates gave a wide range of topics covered in the PPFM. Some however simply listed items in the PPFM rather than covering the areas of discretion. Some also covered non profit business which was not required. Stronger candidates scored well on this section.

(ii) Variable charges on unit-linked policies. For example, mortality risk charges or expense charges.

The setting of unit prices, including:

- Whether pricing is done on a bid or offer basis.
- Frequency of movement between bid and offer bases.
- Allowance for tax.
- Rounding principles.

Non-guaranteed surrender values.
Non-guaranteed early retirement benefits.

Variable premium rate contracts. For example reviewable term assurances.
Invoking delays in processing e.g. property funds
Level of claims underwriting
Determination of compensation payments in the event of an error.

Answers to part (ii) were mixed. Some candidates scored very highly giving a good discussion of both discretion in premiums and charging and aspects of unit pricing policy. Others offered very little for this part or simply repeated points made on part (i).

(iii) *Advantages*

The purpose of the PPFM is to provide external parties with clear and comprehensive information on the way in which the with profits policies are managed. This can address the imbalance between the policyholder and company knowledge regarding the product.

In particular it helps policyholders to understand the material risks and rewards of a with profits policy and to compare the practices of different companies.

This could help to increase consumer confidence. This in turn can help to support new business volumes and can help to reduce withdrawals from the with profits fund.

The PPFM helps to formalise the development of policyholders' reasonable expectations, and reduces some of the subjectivity in this area.

It can be used to demonstrate that customers are being treated fairly. This could reduce the number of customer complaints, and the associated servicing burden. It can also help to increase the regulator's confidence in the company.

Drafting the contents of the PPFM can help companies identify areas where existing practices might be unclear or inappropriate, and so can help them to rectify this.

It also provides a formal framework for internal governance of with profits funds.

Disadvantages

Preparing the PPFM can be a significant and time-consuming task for both the company and the regulator.

The PPFM then needs to be kept up-to-date on an ongoing basis.

Three months' notice must be given if the company wishes to change its Principles. Changes in Practices must also be notified although this can be done retrospectively, within 12 months of the change. All policyholders affected by the change must be notified.

If the Principles of the PPFM have not been well drafted, then the company could find that they are unable to implement quickly certain courses of action, for example in the event of a fall in equity markets.

The company needs to balance its need to retain the ability to apply discretion with the regulatory need for the PPFM to contain detailed information.

If the PPFM is too detailed then there is a danger that policyholders and/or sales intermediaries could select against the company. For example, they could anticipate changes to surrender benefits and switch funds in order to take advantage of this.

The company might not want to disclose some details to competitors.

A "customer friendly" version must also be produced and maintained. The company must draw attention to this policyholder version, for example in its annual statements, or make it available on the website.

It is necessary to appoint an independent assessor to ensure that the fund has been run in compliance with the PPFM. They will also produce an annual report for the with profits policyholders.

The independent assessor role could be provided by a with profits committee of the company, an independent person with appropriate skills, or a report from a non-executive director (if very small volume of business). It may be advisable to introduce a With Profit Actuary role alongside the introduction of the PPFM.

The information provided to customers might generate higher volumes of queries or put them off from investing.

A number of candidates found part (iii) difficult. Most identified the basic purpose of the PPFM to give clear information to customers but that introducing this would introduce cost and effort. Many also described how this works in a UK context and associated requirements such as independent reports. However, few candidates adequately discussed the practical advantages and disadvantages of the additional disclosure such as increased confidence and sales or any of the practical issues such increased as visibility of strategy to competitors.

(iv) It is necessary to obtain the Sanction of the High Court (or Court of Session in Scotland).

The petition to the Court has to include a report on the scheme of transfer from an independent expert.

This independent expert is nominated or approved by the FSA.

The independent expert's report must be in a form approved by the FSA.

Before it issues the sanction, the Court must be satisfied that the companies have performed a number of tasks.

These are:

- They have adequately publicised the scheme.
- They have sent all policyholders a short formal notice.
  - The form of this notice must be approved by the FSA.
  - In practice this involves sending to the policyholders a statement setting out the terms of the scheme…
  - ….And a summary of the independent expert's report.
  - The summary must be sufficient to indicate his or her opinion of the transfer on the interests of the policyholders involved.
- That Company X is authorised to carry on that type of business…
- …. and will be able to cover its regulatory capital requirements after the transfer.

Any person, including employees of Company X and Y, can be heard in Court if they feel that the transfer would adversely affect them.

The FSA might also invoke a right to be heard by the Court.

The majority of candidates scored well on part (iv) correctly identifying the required court process and much of the information and process requirements.

(v) ***Advantages of Option II***

TCF

This structure makes it simpler to continue to manage each of the two sets of with profits policyholders in the way they have been managed to date. In particular, the way in which bonuses are declared.

This makes it easier to comply with PRE and TCF.

It also makes it easier to demonstrate equitable treatment of each set of policyholders.

Financial Strength

Option II avoids problems that arise if the two funds have different financial strengths and any need to protect the closed funds policyholders entitlement to its estate

We know that Company X has good financial strength. If Company Y has poor financial strength, then the security of their with profits policyholders would be increased post merger and those of the Company X with profits policyholders would be reduced.

This would be less of an issue if the solvency levels were similar pre merger, i.e. if both funds were considered to be sufficiently "strong" both before and after merger.

If the sub-funds were merged (Option I), it may be necessary to perform a one off distribution of part of the estate of the stronger company immediately prior to the merger.

This could be a complex exercise.

Investment Strategy

Similarly, Option II avoids problems that arise if the two funds have different investment strategies.

If the sub-funds were merged (Option I) then the equity backing ratio of one fund would be likely to increase and the other to reduce.

Fund B is well capitalised, so it is possible that the equity backing ratio of Fund B would fall post merger.

In order to continue to meet PRE it might therefore be necessary under Option I to introduce notional ring-fencing of investment portfolios in order to perform asset share calculations. Option II avoids this added complication.

Miscellaneous Surpluses

If the sub-funds were merged (Option I), it would need to be decided whether ex-Company Y with profits policies only benefited from profits/losses on ex-Company Y without profits policies, and similarly for ex-Company X policies. This could be complex to implement, but changing this could go against PRE. Option II avoids this issue.

Also under Option II, new with profits and without profits business can continue to be written into Fund B and will impact only ex-Company X policyholders. This is likely to be in line with current practice and expectations for both Company X and Company Y policyholders.

Under Option II the policyholders of Fund B remain isolated from experience in Fund C. If Fund C became insolvent then, under the scheme of transfer, it would be the shareholders of the new company that would have to support this, not the free estate in Fund B. Under Option I, Fund B policyholders would become exposed to the risks underlying the ex-Company Y with profits fund.

This could go against their reasonable expectations and they could also expect compensation in such circumstances.

Practical considerations

If both funds are less than £500m in size, then keeping them separate could avoid the need to report under the "twin peaks" regulatory environment.

There would be no need to rewrite the PPFMs (if these have been introduced by then).

Option II might be easier for the policyholders to understand.

Disadvantages of Option II

Closed fund

Company Y's fund is closed to new business. If Option I was instead followed and it was merged with Fund B, then it might be possible to maintain a higher equity backing ratio going forwards rather than having to move into more secure assets as the fund runs off.

Similarly expense economies may be greater under Option I, due to the delay of run-off.

Both of these points could mean higher returns to ex-Company Y policyholders under Option I and avoids the risk of shareholder support being required as in Option II

Practical considerations

Maintaining two with profits sub-funds under Option II will lead to some duplication of effort:

- The company will need to maintain accounting and reporting systems that separately identify the transactions arising in the two with profits sub-funds.
- The company will need to maintain separate asset portfolios.
- The company will have to produce a realistic balance sheet for both Fund B and Fund C (if each is large enough to require this).

If the company continues to manage each set of with profits policyholders separately, then there will also be additional effort in:

- Calculation of asset shares and bonuses (could be different methodologies).
- Maintenance of two PPFMs.

The total expense base of the company is therefore likely to be higher under Option II.

Policyholders might be unhappy or confused if they see higher bonuses given to other policyholders in the same company with the same contract.

Investment Strategy

Keeping the asset pools segregated might mean that it is not possible to undertake specific types of investment due to lack of scale, such as overseas equities or direct property.

Most candidates covered the main points required by this question. Those that scored well were candidates that gave supporting detail to explain their points by way of practical examples.

(vi) (a)

Areas that might currently differ include:

- Frequency of calculation of asset shares (e.g. monthly, annually)
- Calculation per policy or for specimen model points only
- Hypothecation of assets (same mix for all or differing across products or differing by term to maturity)
- Determination of investment return for each asset type (e.g. actual v. indices)
- Smoothing (are asset shares smoothed automatically e.g. via averaged investment returns?)
- Expense philosophy (e.g. predetermined charges or actual expenses)
- Method of expense allocation between products or policies, including treatment of overheads
- Allowance for tax (e.g. on unrealised capital gains)
- Allowance for windfall profits (e.g. unexpected tax gains)
- Allowance for profits arising on the without profits business written within the same fund
- Allowance for other miscellaneous profits, e.g. from with profits surrenders
- Charges for the cost of protection benefits (e.g. actual cost or smoothed or theoretical cost)
- Charges for the cost of options and guarantees (e.g. one company makes explicit charges, the other does not)
- Charges for the use of capital support (e.g. one company makes explicit charges, the other does not)
- Augmentation of asset shares from the free estate

(b)

Advantages

The same calculation program and process can be used for all with profits asset shares for the combined company going forwards, which increases the efficiency. It could therefore reduce company expenses once implemented.

It provides the opportunity to improve the quality of asset share calculations for one or both sets of business, since it is likely that the more sophisticated approach will be adopted.

The suggestion would be particularly appropriate if Option I was chosen. It also simplifies the drafting of PPFMs.

Disadvantages

Changing the asset share methodology for either or both sets of with profits policyholders could go against their reasonable expectations. It could not be applied retrospectively.

The new merged company would have to ensure that it continues to treat customers fairly. For example, it is unlikely that it would be able to implement a change that would reduce the rate at which asset shares accrue going forwards (e.g. removal of augmentation from free estate).

Changes that increase asset share accrual will reduce both reported (if "twin peaks") and actual solvency.

Communication would be required to customers and changes would need to be made to the PPFM(s).

In addition asset share calculation systems/programs would need to be amended. This could be costly and time-consuming. Any system which projects asset shares forwards (e.g. realistic balance sheet calculations) would also need to be changed.

Part (vi) was generally well answered. Most candidates gave a number of details that may vary in the calculation covering approaches to investment and expense allocation and a number of possible deductions from asset shares. Fewer candidates scored well on the second part. Many identified TCF may be an issue but few gave enough discussion to demonstrate understanding of in what circumstances and to which policyholders.

(vii) *Level of experience / size of portfolio*

Company X might have been writing term assurance business for much longer than Company Y.

The greater the experience of an insurer in writing a particular class of business, the more likely it is to be willing to retain more business in-house and the less it will want to cede to a reinsurer (assuming that the business is written on profitable terms).

Company Y might have wanted to utilise the reinsurer's experience in respect of devising underwriting procedures or pricing in the past.

Reinsurers provide a greater level of assistance to those insurers that are ceding the most business, hence this may have contributed to Company Y's low retention.

Company X may have a much larger portfolio of term assurance business, in terms of lives covered, than Company Y.

Variations in claims experience is likely to have a much lower impact on a company with a large portfolio of business, and so Company X could be more comfortable retaining a larger proportion of this risk.

Risk appetite

For both companies, the profits/losses on term assurance business are largely borne by the with profits policyholders. The two sets of with profits policyholders could have different levels of risk appetite.

There may be a low risk appetite in Company Y, leading to the low retention limit treaty being put in place. For example they could have expectations of very stable bonus rates.

Marketing literature and the PPFM will have contributed to these expectations.

This low risk appetite is likely to have been a more important factor than Company Y giving profits away to the reinsurer through ceding too much business.

External perception

Company X might be more concerned about external perception, such as market analysts and rating agencies. This is particularly the case if it is listed on a stock exchange.

It will want to avoid shocks to its results. However it will also want to avoid giving away excess profits to reinsurers, which it should be retaining for its own shareholders.

External parties are unlikely to view a company favourably if it passes most of its insurance risk to a reinsurer. Sensible reinsurance arrangements where the risk/reward trade-off have properly been considered will be well received by the market.

Source and type of business

Company Y might have used less underwriting than Company X.

Company Y might, in the past, have sold its business through channels producing more variable term assurance claims, such as through direct marketing.

By contrast, Company X's business might have been written alongside mortgage applications for a large building society, in which case it would be expected that the claims experience would be relatively light, with a fairly smooth distribution of the likely size of claim.

Company Y might have a less well diversified portfolio for example Group business or fewer product lines.

Other reinsurance

The reinsurance arrangements that both companies have in place for their term assurance portfolios may be heavily influenced by the reinsurance arrangements that each company has in place for other lines of business.

In the interests of simplicity and streamlining administration, the companies may have decided to have treaties such that the retention limit is the same for all types of without profits business. This may result in the companies each over/under-insuring for particular lines of business if they were each considered in isolation on their own merits.

Company X might have other reinsurance treaties in place, such as excess of loss, stop loss and/or catastrophe treaties.

Company Y might have been able to obtain much cheaper reinsurance rates.

Financial strength

Company X has good financial strength, meaning that it is able to withstand some degree of variation in claims experience. If Company Y is weaker, this could be a factor leading to its lower retention limit.

Similarly Company Y might be taking greater advantage of the use of reinsurance to reduce its solvency capital requirements or enable it to write more new business.

Company Y might require financing reinsurance in order to support capital strain, and the reinsurer might require a lower retention in order to provide this.

Other factors

Company X might have been more proactive in regularly reviewing its reinsurance arrangements than Company Y. Company X might have had a similar treaty to Company Y many years ago, but over time may have gradually increased its retention.

Company Y might have closer relationships with the reinsurance company or might have more awareness of the financial benefits of reinsurance.

Most candidates covered a number of issues regarding why the approach to reinsurance may be different but too often this was in general terms and without application to the businesses in the question such that marks were lost. In addition only the strongest candidates were able to identify the more practical and commercial points regarding the influence of other business lines or the desire to smooth profits for external market reasons.

(viii) *Exclusions*

The Director is correct that catastrophe reinsurance treaties generally do have a large number of exclusions.

This has become even more the case since 11 September 2001. Risks such as terrorism, war, riot and so on are regularly excluded from the cover offered under mainstream catastrophe treaties. In addition market capacity has reduced and premiums have increased

However, a reinsurer may be prepared to cut down on the number of exclusions in return for an increase in premium.

Or it may be possible to find an alternative reinsurer who is willing to cover a wider range of risks or who will cover just the risks excluded from the main catastrophe treaty, e.g. in the London Market.

Types of business and risks

In deciding whether the catastrophe cover is necessary, the Board will have to consider the types of business that the company writes.

It will also consider the extent to which it is exposed to aggregations of risk in the event of a catastrophe. For example it will consider the distribution of sums assured covered and the profile of its policyholders, e.g. whether they all reside in one particular geographic area.

This should particularly be considered for group business where the aggregation of risk is more obvious, e.g. the life insurance company may cover all of the employees of a particular firm where multiple claims could arise in the event of, say, a building collapse. The company may wish to model extreme events to assess their impact.

Financial protection

Company X may wish to have steady, reliable profit results from period to period, particularly if it is listed. Hence it is important that adequate reinsurance cover is in place for extreme events, due to the impact that these could have on the financial results and in turn the share price of the company.

In addition, if the Board of Directors failed to put in place adequate catastrophe reinsurance, they might be open to lawsuits being brought against them in future by policyholder groups and shareholders for dereliction of duty, in the event that a catastrophe did occur that caused financial hardship.

It is generally important for life insurance companies to have adequate catastrophe cover in place as catastrophe events can jeopardise their financial security.

Although Company X is known to be financially strong, it may still wish to avoid large fluctuations in its financial position. In addition it will need to consider the impact on its ICA of having no catastrophe cover.

Cost

Not renewing the treaty will save the company some money.

However catastrophe treaties are designed to cover only very rare events, so the price of cover is generally fairly low. It is therefore likely to be worth putting it in place to provide adequate financial protection at relatively low cost.

Conclusion

Overall, the Director's suggestion is likely to be rejected.

A number of candidates struggled on part (viii). Many identified that ICA reserves may be impacted without the cover and that solvency may be threatened by an extreme event but few discussed the nature of the company and that the extent to which it faced aggregations of risk may impact its decision.

2

(i) Solvency projections will

- Allow the impact of key business strategy decisions to be assessed, for example bonus strategy or investment strategy
- Show the amount of new business and new business strain that can be supported by the available capital.
- Estimate the pattern of capital releases to shareholders.
- Help to assess the cost of capital in calculating the embedded value of the company.
- Enable risk measurement and management within the company.

In addition, for closed or declining with profits funds, projections are useful in preparing run-off plans for the fund.

Solvency projections might be a regulatory requirement in that country.

Most candidates scored well on part (i) giving a range of relevant examples.

(ii) *Issues*

The regulatory solvency position is strong, but it is weakening over the next few years, before starting to improve again at the end of the plan period.

Some of the excess assets in the Long Term Fund are required to finance future new business.
It can be seen that New Business Strain over the early plan years is more than surplus emerging on in-force business.

One of the reasons why solvency appears to be strong is the use of negative non-unit reserves.
These are not tangible, so cannot be transferred to support dividends.
The only excess assets available for transfer must be cash, fixed interest or unit-linked assets.

Selling off unit-linked assets would go against FSA principles and would in any case result in mismatching.

The fixed interest bonds appear to be being used to match conventional business. Hence selling off these assets to transfer to shareholders would result in mismatching, hence increasing reserves.

Cash and deposits are required to pay for actual cash outflows from new business strain and other expenses in the early years of the plan.

In summary whilst the regulatory position is strong there are limited distributable assets available to transfer to shareholders.

It should also be noted that net non-linked liabilities (immediate annuities plus non-unit reserves) are likely to go negative after the end of the plan period, if new business continues, hence the company may not be able to take full advantage of negative non-unit reserves in future.

Any transfer would reduce the resilience of the long term fund to adverse experience, such as falling stock markets reducing unit linked management charges, improving annuitant longevity, increasing or exceptional expenses, to enable future new business to be written. A strong company may also help support the company's share price or credit rating.

The company should also consider the need to be solvent on a Pillar 2 as well as a Pillar 1 basis. It is possible that Pillar 2 is more onerous due to persistency and annuitant mortality risks.

It could be suggested that a longer projection period be considered.

It could also be noted that distributable assets in the Shareholder Fund (i.e. excluding the head office property) are running down quickly, and the current dividend policy will not be supportable after a few years beyond the end of this projection period.

Most candidates struggled with part (ii), which was a challenging question. Many identified the trend in solvency and gave some examples of why retaining some surplus capital was advisable, e.g. to cover mortality improvements. Only the strongest candidates were also able to identify that most of the assets of the fund were either required for matching or could not be used to support a dividend payment and consequently missed many of the available marks.

(iii) *Options open to the company*

To improve its ability to pay bonuses longer term the company must generate more profits.

It may achieve this through increases the profits it makes on writing new business. This may be through increasing the volume it sells or the profitability of sales.

It can also increase its profitability through improving its experience on its existing business. For example it may be able to cut its cost base

It can also generate one-off increases in its ability to pay dividends.

The company could consider weakening the valuation basis for the immediate annuity business.
However the size of portfolio is unlikely to provide much in way of surplus.
The change cannot be seen as arbitrary.
It also needs to comply with appropriate guidance and regulations.

The company could consider changing the valuation basis for unit-linked business.
It could look at using actuarial funding, thus reducing new business strain.
However, this would mean that the company would not be able to use negative non-unit reserves.
Whether actuarial funding would be feasible would depend on the nature of the policies.
The company could instead review the basis underlying the non-unit reserves, although it would also need to consider constraints on their use.

To alleviate the issue that negative non-unit reserves are unlikely to be fully recognisable beyond the end of the plan period, the company could:

- Accept some reinsurance of conventional business from another insurer to allow negative non-unit reserves on unit-linked business to be fully recognised.
- Start writing immediate annuities again.
- Limit new business volumes for unit-linked business.
- Change the design of unit-linked business to make it more capital efficient.

However, it should be noted that continued recognition of non-unit reserves does not alleviate asset transfer and mismatching issues.
The company could consider securitisation of a block of in-force business.
This would effectively mortgage the in-force surpluses and provide actual assets up front with which long term transfers could be financed.

It could raise capital through subordinated loan stock.
Under this arrangement, repayment of debt is guaranteed only after policyholder claims are met.
Since the debt ranks behind policyholders in a wind up, no reserve is needed so assets increase without liabilities also increasing.
This is likely to be done within the Shareholder Fund, so it would not increase transfers but could support dividend until in-force surplus is sufficient.

The company could use financial reinsurance.
This needs to be acceptable from the FSA point of view.
Hence the arrangement needs to involve genuine transfer of risk

The company may sell its Head Office building and lease it back. This would generate the value of the property upfront.

It may have other inadmissible assets it can sell and reinvest proceeds in admissible assets to increase solvency.

It may also reconsider its investment strategy in the Shareholder fund. It may invest more aggressively to increase returns but would need to be mindful of the increased volatility.

It may reduce its new business volumes to reduce new business strain but would need to consider the impact on longer term profits.

It could also increase or front load its charges on unit linked products but would need to consider the impact on marketability.

Most candidates found part (iii) difficult to score well on. Many mentioned a number of financial engineering options such as securitisation but missed marks by not giving an explanation as to how or why they impacted solvency. In addition many candidates restricted their answer to short term financing activities and failed to score many marks for actions that would increase longer term profitability and as such increase dividend paying capability.

END OF EXAMINERS' REPORT