

EXAMINATIONS

September 1999

Subject 303 — General Insurance

EXAMINER'S REPORT

Introduction

The attached subject report has been written by the Principal Examiner with the aim of helping candidates. The examiners are mindful that a number of interpretations may be drawn from the syllabus and Core Reading. 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.

The report does not attempt to offer a specimen solution for each question - that is, a solution that a well prepared candidate might have produced in the time allowed. For most questions substantially more detail is given than would normally be necessary to obtain a clear pass. There can also be valid alternatives which would gain equal marks.

D S Brand
Chairman of the Board of Examiners

30 November 1999

Overall, this was a difficult exam, and it was to be expected that candidates would find difficulty in some areas. However, the examiners were concerned in a number of areas where very few candidates appeared to have any understanding of the concepts being examined.

- 1** (i) *The main problem with the answers to this question was that many candidates failed to give any consideration to the question of models intended to demonstrate solvency, rather than modelling in general.*
Allow for any statutory requirements relating to the valuation of assets and liabilities.
A comparison may then be made of the actual level of solvency with that acceptable to the statutory authorities,
And any higher minima, such as those really acceptable to supervisors or to rating agencies.

Assumptions:

Likelihood of catastrophes and accumulations.

Vulnerability of capital to major shocks such as these.

Effect of actual non-proportional reinsurance coverages on catastrophes.

Spread of different risk groups within the portfolio.

Insurer's experience of writing different classes of business.

Expected level of profitability, both underwriting profit and level of investment income generated (model tail length of classes).

- (ii) *This section was generally well answered.*
Statutory authorities — to protect policyholders.
Company management — duty to company / shareholders / policyholders.
Rating agencies — provide accurate information.
Brokers — to place business with solvent companies.
Shareholders — to monitor their investments.
Policyholders — to check the solvency of their insurers.
Competitors — to try to discover competitively useful facts.
Potential purchasers of the company — to assess its value.

- (iii) *This section was generally well answered.*
Might test variability using variations in assumptions with a deterministic model.
Easier to test effects of particular scenarios using a deterministic model.
Stochastic more complex, and harder to get right.
Stochastic harder to parameterise.

Stochastic more effective in incorporating allowance for volatility in asset values

And uncertainty in claims experience.

Stochastic may take into account correlations between and within assets and liabilities.

Stochastic allows construction of probability distribution for outcomes.

2 *Most candidates knew the main reasons and scored reasonably well.*

Estimating the cost of outstanding claims
to set reserves
Monitoring the actual runoff of outstanding claims
against estimated amounts
Monitoring the adequacy of reinsurance
Comparing the relative profitability of various parts of the account
Reviewing current premium rates
Pricing new products
Financial planning
Monitoring the asset-liability position

3 *Almost no candidates considered the paid and incurred approaches separately, despite the difference in the effect likely. Almost none realised that when the claims incurred average 100% of ultimate in an early report then the weight attached to the initial expected losses is minimal, and that therefore the incurred Bornhuetter-Ferguson method has almost no effect on the incurred chain ladder estimate, or that it is inappropriate to use the Bornhuetter-Ferguson approach when a reduction in incurred claims is anticipated. Some candidates suggested giving a credibility-inspired weight to the initial expected losses, which is a sensible variation of the Bornhuetter-Ferguson. Some suggested that when claims are reported quickly, as is normal in this class of business, it would be better to rely on case estimates. This is a sensible suggestion, but the problem in this case is that case estimates have proved unreliable, and to use this approach we would need to find some way to improve the quality of case estimates.*

It is not stated whether the paid or incurred Bornhuetter-Ferguson (BF) method is intended, and whether it is likely to replace a paid or incurred chain ladder method. If paid methods are intended, then the BF is likely to be an improvement on the chain ladder, provided a sensible initial expected loss estimate is available, as its development will be more stable, and less affected by early swings in paid amounts. However, these methods ignore the amount of reserves set up in respect of reported claims. This is normally thought to be a valuable source of information, even though in this case it is noted that the reserves are often badly inaccurate.

If it is intended that incurred methods be used, the BF suffers from a very serious weakness. This is that if reductions in incurred claims are more normal than increases, the formula does not make sense, predicting a reduction which is a function of initial expected losses rather than the reported claims which are subject to reduction. Also, even if there are only modest further increases in incurred claims to be expected, then the initial expected losses are given little influence in the projected result, and therefore little opportunity to exercise a stabilising influence. From the information available, it appears likely that one of these will be the case.

It may be found useful to consider the results of Bornhuetter-Ferguson methods in addition to the current methods the company uses.

- 4** *This question was surprisingly badly answered, as it is straight bookwork. This meant that while a reasonable number of candidates obtained full marks, other gained little or no credit. Some candidates evidently felt that it was outside the scope of the examination, as the specific application of the guidance notes is the United Kingdom, but the answer is a direct quotation from the core reading. All members of the Institute and Faculty should be aware of the nature of professional guidance, which can be obtained only by familiarity with the guidance notes. Of more importance, since the last amendment to the syllabus and core reading, GN14 has been withdrawn and GN12 amended significantly. Under the normal examination rules, an answer would have been accepted as fully correct if it corresponded either to the syllabus/core reading or to the correct situation at the time of the examination.*

- GN12: An actuarial report on the reserves or financial soundness of an insurance company or Lloyd's syndicate.
GN14: Providing the actuarial reports on Lloyd's run-off years of account required under Lloyd's byelaws.
GN18: Providing a Certificate of loss reserves to the International Insurers Department in respect of a UK insurance company authorised in the United States of America.
GN20: Providing a statement of actuarial opinion to the Council of Lloyd's in respect of solvency reserves under the Lloyd's Valuation of Liabilities Rules.
GN 32: The work of the Appropriate Actuary of a Friendly Society.
GN 33: Providing statements of actuarial opinion to the International Insurers Department and the New York Insurance Department in respect of the relevant US insurance or reinsurance business of a Lloyd's syndicate.

- 5** *This question was generally well answered.*

The movements which are normally monitored are:

- New business
- Lapses at renewal
- Endorsements
- Mid-term cancellations

By studying movements and their trends, an insurer can:

- Measure the growth or contraction of the business and of its different parts.
- Get an early indication of unusual losses or gains in business volume. These may indicate if the insurer's rates or conditions are out of line with the market.
- Assess the effects of a new set of rates or a marketing campaign on the business, and thus the sensitivity of the portfolio to market forces.

Movements will give an early indication of adverse or favourable changes. These may indicate the need for a review of premiums or terms and conditions. They may also be used to help reconcile accounts data and in-force statistics.

- 6** *This question was generally answered very badly. Few candidates realised that the policy in question was financial reinsurance, and most of those who did failed to analyse the policy on its merits as a financial reinsurance considering the insurer's probable motives in effecting such cover. Many candidates analysed the company's gross and net position, rather than looking at the effect on the company of the reinsurance, which would have revealed the lack of risk transfer. Of candidates who did identify the lack of risk transfer, many identified it as a flaw in the policy design, rather than a fundamental part of it. Past examinations have suggested that candidates are familiar with the concept of financial reinsurance, but the response to this question suggests that they lack knowledge on how such arrangements might be constructed. A good number of candidates did identify correctly that the policy would have a beneficial effect on the company's solvency purely in terms of the solvency margin:net premium ratio. Unfortunately, if candidates failed to recognise the nature of the policy, it was not generally possible to award significant marks. The examiners gave favourable consideration to candidates who had analysed the reinsurance as if it was a conventional stop loss product, and had got very low marks, but whose analysis of it as a stop loss product was sensible and detailed. However, such analysis would generally suggest that there were a number of major inconsistencies in the product, which many candidates who took this approach spotted. Some candidates thought that this was a proportional reinsurance, apparently on the basis that the reinsurance premium is expressed as a proportion of the subject premium. It should be noted that almost all reinsurance premiums, whether of proportional reinsurance or not, are expressed in this way. The worst candidates simply listed the conventional reasons for effecting reinsurance, or examined the policy in the light of what the company's overall reinsurance strategy ought to be. Some candidates understood the commission clause to indicate that 41% premium was net of the 9% commission. This had not been intended, and would change the financial nature of the policy profoundly, however, its purpose was understood.*

The policy transfers almost no risk. The company expects a loss ratio of 75%. Therefore, it is unlikely that a paid loss ratio of 70% will arise by 31 December 2002, so no money is likely to be paid to the reinsured before 31 December 2003, when the treaty terminates. On the other hand, a profit share 97½% of any claim payments which might be made means that the total amount then paid to Company A will vary very little as a result of the loss experience of the reinsured business. This type of reinsurance is known as financial reinsurance, or finite risk reinsurance.

The total amount that Company A receives back is likely to be very close to 40% of the underlying premium, whatever the loss ratio may be.

Since it provides almost no protection against loss, Company A must have had some other motive in taking it out. The policy's nature is close to what is known as a time and distance policy, a form of financial reinsurance, or finite risk reinsurance. It may be viewed as placing money on deposit, or as a method of improving the Company's apparent solvency position. As the company's solvency ratio is only 28% of premiums, which would normally be considered low, the latter is probably the company's motive.

The yield on the funds placed is $(40/32)^{1/4} - 1 = 5.7\%$ per year. This may or may not be a reasonable yield, depending on the current yields for a four year deposit

in the currency in which Company A's business is written. The tax treatment of a transaction such as this in Company A's domicile, and the security rating of the reinsurer, are both matters that will affect whether or not it may be considered a good and appropriate investment of the company's funds.

In taking out this reinsurance the company loses assets equivalent to 32% of the premium for the class. However, it will be able to reduce reserves by 40% of the premium in anticipation of reserve recoveries. This will release 8% of this class's premium, and improve the solvency ratio. Since premiums have been ceded by this transaction, measuring the ratio on net premium will give a greater rise. However, it does not change the company's underlying position at all. If the company had had problems with its capital adequacy this transaction will not relieve them in the way that a quota share cession, for example, would have done. Because it is artificial, some jurisdictions prohibit the treatment of this type of policy in this way, but presumably this is not the case in Company A's jurisdiction, or it would not have taken out the treaty.

It is possible that Company A might be permitted to use discounted reserves in its balance sheet. This might achieve the same effect without the aid of artificial transactions.

- 7** *This question was reasonably well answered. Few candidates noted the point about currency, which may be a major concern to an insurer operating in a number of countries, or in the London Market, or a marine, aviation or travel insurer, to name just three examples. A number of candidates were concerned with dates of birth, rather than dates in general, which would not be a matter of concern to most insurers.*

- Information could be entered onto the wrong claim record.

The claim and policy numbers should both be in series that mistakes are difficult to make — a single digit wrong or two numbers swapped will give an invalid number, and it should not be possible for a policy number also to be a claim number.

- Incorrect amounts may be entered, or correct amounts in the wrong currency.

There should be some check on amounts. Very large or small claims should be queried if entered. This is especially important if working in a variety of currencies. A query should be raised if an amount is entered in a different currency from previous entries. A query should be raised if the claim is not in the currency of the country of the address of the policyholder (this will not apply for marine insurance, travel insurance and some other classes).

- A claim may be entered for an incorrect date.

The system should automatically check that the policy was on-risk on the day when the claim occurred. A query should be raised if there is a very long gap between the date of loss (or reporting to the insured) and reporting to the insurer, or if the date of loss was later than the date reported.

- Information may be entered against the wrong policy.

Other details, such as policyholder surname, deductible, and the fact that paid + estimated outstanding < sum insured, should be checked against the information on the policy record.

- Information may be missed out.

A claim should not be accepted until all fields have been filled in, possibly with null entries.

8 *This question was answered moderately. The most important common fault was not considering whether or not tail factors were required. A number of candidates noted that the paid claims were not fully developed, but concluded that the method could not be used, or used it without incorporating a tail factor. One strange misapprehension of many candidates appeared to be that paid claims should always be associated with written premium and incurred claims with earned premium. This entirely depends on whether accident year or underwriting year claim cohorts have been used to compile the paid and incurred claims, and then both sets of data should be compared with the same premium.*

- (i) The first decision is which set of development factors to use to project the losses. The last diagonal of data represents six months' development, rather than a year's, so it is not appropriate to use the sets of factors which include the last diagonal. Therefore one of those calculated excluding the last diagonal should be used. *Some candidates noted that the last diagonal was significantly different from the previous development factors, but failed to connect it with the half year's experience. Some candidates suggested adjusting the last diagonal of data to incorporate this, some noting that it was a pity to have to throw away data. This is a reasonable alternative approach, but, especially at early durations, the precise amount to adjust by is problematic*

Neither triangle of development factors appears to suggest that the development pattern is changing over time. The paid one is erratic, but there is no evidence of systematic increase or decrease. If there were, it would be appropriate to base our chosen factors on recent diagonals only, or to extrapolate the trend into the future. As it is, it seems best to use the average development factor for all years excluding the last diagonal. In practice we might smooth the observed average factors. *A significant number of candidates thought that the paid triangle was extremely volatile, some suggesting that it was so volatile that it was necessary to discard it. In fact the triangle would not be considered to be particularly volatile in practice.*

The question of whether or not a tail factor is needed ought to be addressed. With incurred claims the answer is almost certainly not. All nine observations of claims after development year six show nil development, so development may be assumed to be complete at that stage. With paid claims, development continues in the tail, and may be assumed to continue beyond the development horizon for which we have

data. We would have to extrapolate the trend we observe in the tail. In practice we would do so, but also refer to benchmarks, discussions with the broker, the direct writer and any other available source of information in forming a judgement. A possible value would be (continuing on from the observed value of 1.06): $1.04 \times 1.03 \times 1.025 \times 1.02 \times 1.015 \times 1.01 \times 1.007 \times 1.005 \times 1.003 \times 1.002 \times 1.001 \times 1.001 = 1.17$. *Most candidates made sensible comments on which set of averages to choose, and it was quite acceptable to prefer the last three years if sensible arguments were stated. Few candidates mentioned the alternative sources of information.*

The use of accident year implies the use of earned premium to estimate initial expected losses. We should estimate this value using the average of written premium in the accident year and in the prior year. However, we should check with the broker whether or not this is appropriate — the class of business may have a particular “renewal season”.

A question arises as to whether or not it is appropriate to use the B-F method to project incurred losses from development year 1, since these generally fall substantially in development year 2. The reduction cannot be a result of new claims being reported (as this would require them to be negative claims), but must be the taking down of reserves, which have already been reported. Therefore, it is inappropriate to project the reduction on the basis of initial expected losses. It may also be inappropriate to use the method without amendment after development year 0, for the same reason.

As part of the procedure, proportionate future development of claims must be estimated. This is done for each development year by taking the selected development factors for later development years, and the tail factor if any, and multiplying them together. However, in this context they must be adjusted to mid-development year values. It may be enough to do this by simple interpolation, but especially in the early stages, it may be that development is slowing down and the second half of the year should have less of the factor than the first. It may also be the case that cedants tend to report losses shortly before the end of the year, in which case the reverse may be the case. Particular care needs to be taken over the value used for the 1999 accident year, which at the moment is at development year $-1/2$. There are standard interpolation methods that may be used, and the underlying situation should be discussed with the cedant or the broker. *Most candidates demonstrated by the construction of future development factors appropriately, but few pointed out the need for mid-year interpolation, or the difficulties surrounding its estimation.*

A similar problem exists in relation to the 1–2 factor on the incurred, which is a substantial reduction. It may be that this actually happens over a longer period or a shorter one — for example a reserve review at the end of each year of claims of a certain age, which tends to produce reductions. The actual underlying half-year development factors could be similar to either of these two examples:

	0–½	½–1	1–1½	1½–2	2–2½	2½–3
	5	0.79	.85	.88	.9	1.18
or	2.5	1.59	1.25	.60	1.04	1.02

Whichever is chosen will have a profound effect on the results and should be based on a knowledge of the underlying situation.

The process of calculation is as follows:

1. Estimate earned premium for each accident year.
 2. Calculate initial expected losses for each accident year, as the product of the result in (1) and an initial expected loss ratio based on the broker's pricing information.
 3. Take the chosen development factors, and estimate development factors to ultimate from each development year, as the product of later year-on-year factors, and any tail factor.
 4. Interpolate the results in (3) in an appropriate way to get mid-year factors.
 5. Estimate future development percentages as the complement of the reciprocal of the results in (4).
 6. Estimate future development as the product of the results in (2) and (5).
 7. Estimate ultimate losses as the sum of the results in (6) and the reported or paid claims.
- (ii) *The worst common mistakes were to use the incurred claims pattern and to use cumulative, rather than incremental, amounts. Some candidates used a particular year to do the calculations. This was acceptable.*
- Use paid development pattern
 - Using the uninterpolated pattern, then assuming payment midway through the period we should discount by ½ year, 1½ years, 2½ years etc.
 - Must spread out paid tail or assume tail is paid on average two to three years after payment period before the tail. (Answer shows 3 years.)

0–1	1–2	2–3	3–4	4–5	5–6	6–7	7–8	8–9	9–Ult
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Incremental uninterpolated pattern:

4.2%	5.9%	6.0%	5.8%	31.3%	11.7%	10.4%	5.3%	4.8%	14.5%
0–1	1–2	2–3	3–4	4–5	5–6	6–7	7–8	8–9	9–10

Discount: 0.953 0.867 0.788 0.716 0.651 0.592 0.538 0.489 0.445 0.350

Multiply and add back up: 0.608

(iii) *Most candidates failed to attempt this question.*

- Assume brokerage and commission are accrued at the same rate as premium.
- Assume premium paid on average after six months, that is a discount factor of $1.1^{-1/2} = 0.953$.
- Ignore internal expenses (assume they are included in profit loadings).
- Equate present value of income and present value of outgo.
 $\text{Premium} \times 0.953 = \text{Losses} \times 0.608$ (or whatever was calculated in part (ii)) + profit + commission $\times 0.953$ + brokerage $\times 0.953$ + ceding commission $\times 0.953$.
- Assuming premium adequacy in 2000 is the same as in 1999 we expect accident year 2000 loss ratio to be 114%.
- Required ceding commission is $100\% - 114\% \times 0.608 / .953 - 10\% / .953 - 2.5\% - 5\% = 9.28\%$.

9 (i) *This question required candidates to think beyond the circumstances outlined in core reading, which treat underwriting year accounting purely in terms of three-year accounting. It should have helped that there were example balance sheets later in the question. Many candidates did understand the central point of the question, which was the treatment of the exposure still to take place. Some students were confused by the concepts of funded accounting and closed and open year — in a context of one-year accounting each year would be closed at 31 December, so that there would be no open years. Others mentioned reinsurance to close, which is only ever relevant in the context of Lloyd's syndicates.*

The underwriting year basis anticipates all losses from business already written, whether or not the exposure period has expired by the accounting date. Therefore, there would be a need for a reserve in respect of any losses that will occur after the balance date on any unexpired cover at that date, which would not be needed under accident year accounting. Conversely, there will be no need for any reserve in respect of unearned premium, which does need to be set up under accident year accounting, not would there be any credit in respect of deferred acquisition costs.

The consequence of using the underwriting year basis rather than the accident year basis is that any profit or loss which is expected on the unexpired period of cover will be anticipated in the accounts, with possible follow-on effects on the timing of tax and dividend payments. Under the accident year basis, the recognition of profit is deferred until the cover period has expired; the recognition of losses may be similarly deferred, unless an additional amount for unexpired risks is set up as a reserve, in which case the timing of the losses will be the same.

- (ii) *Most candidates correctly calculated the unearned premium and DACs. Some candidates simply increased claims reserves by 10%, without removing the unexpired portion, and double counts reserves for the unexpired period of cover. Some candidates changed the reserve amounts, but instead of taking the difference. It would be nice to be able to do this in real life. Some candidates tried to reckon whether or not an additional amount for unexpired risk would be appropriate. This was a sensible approach, but as this part of the question is a step towards calculating a merged balance sheet, it is at that point that this needs to be considered. This was not clear from the question, and candidates who did this would not have been penalised.*

First, restate Company B's balance sheet in accident year format, and adjust to Company A's standards, which may or may not be realistic. The unearned premium should be $3,200 \times 25\% = 800$. DACs on this should be 25%, or 200. Losses on the unearned premium should be $800 \times 88\% = 704$, but given that reserves need to be increased by 10%, The Company B will have reserved only $704 \div 1.1 = 640$. Consequently, the reserves should be $(12,000 - 640) \times 1.1 = 12,496$. Therefore the accident year balance sheet is

Investments	14,000	Unearned premium	800
		Less DACs	200
			600
		Claims reserves	12,496
		Share capital	500
		Retained profits	404
Total assets	14,000	Total liabilities	14,000

- (iii) *This part of the question was generally badly answered. Common mistakes included not taking out of the assets the purchase price that Company A has paid to the shareholders of Company B, or adding it to Company B's assets in the apparent belief that the purchase price is received by the target company itself, and adding B's share capital on to A's. Few candidates seemed to understand the nature of a share premium account, and believed that it would be affected by the transaction. Many candidates did not appreciate the comment that goodwill must be written off immediately. The implication of this is simply that the assets and liabilities of Company B can be taken into Company A's balance sheet, any difference going directly into retained profits. This simplifies, rather than complicates, the calculations required.*

Company A's commission ratio is 20% (to judge by the relationship between DACs and unearned premium). Add on the loss ratio and we get 80%. Therefore, there is a profit margin of at least 20% on unearned premium. This amounts to 800. A similar calculation on B gives a loss of 13%, or 104. Overall, there seems to be no need for an additional amount for unexpired risk, even if we were to take account of the expenses of running off the business.

Company A has paid 2,500 for Company B. Any goodwill is written off. Therefore, adding the companies' balance sheets together, but deducting the purchase price, we get:

Investments	25,500	Unearned premium	4,800
		Less DACs	1,000
			3,800
		Reserves	18,496
		Share capital	500
		Share premium a/c	1,500
		Retained profits	1,204
Total assets	25,500	Total liabilities	25,500

The remaining cash of 500 could be shown separately from the rest of the investments.

- (iv) *This part was generally poorly answered. Candidates did not seem to understand many of the implications of simple balance sheets. Some candidates suggested that Company A was poorly invested as so much of its assets were in cash. However, this ignores the fact that cash would always be placed at overnight interest rates and would therefore yield investment income to Company A, and that a company on the verge of buying another for cash needs to have a cash hoard available to fund the purchase. There were also some comments that revealed that candidates did not understand the existence of the share premium account. Some candidates evidently thought that it reflected the performance of Company A's shares on the stock market. It actually indicates that Company A has at some time issued shares for a consideration in excess of their face value.*

The ratio of reserves to annual premium suggests strongly that the two companies write different types of business. A's is short tail, with reserves being only about fifteen months' claims. *Many candidates made this point, although some looked at the ratio and simply concluded that Company B was better reserved than Company A, despite the fact that we know that in the restated balance sheet, the two companies are reserved on the same basis.* (Assuming that the unearned premium is half the year's written premium.) B's reserves, as they are now restated, amount to 47 months' claims. This suggests that A's business is property or motor, and may include domestic and smaller commercial business. B's is more likely to be industrial risks, with a large proportion of liability business.

The average tail of claim payment is much longer for Company B than Company A — roughly four years compared with nine months. A appears to be rather more profitable than B. Taking account of investment income alters this position — to some extent. A's profit before management expenses per 100 of premium is $100 - 60 \times 1.075^{-3/4} - 20 = 23.17$. B's, on the other hand, is $100 - 88 \times 1.075^{-4} - 25 = 9.1$. After management expenses this is likely to be only a modest profit at best. The merger will add little to A's profit, unless either there are synergetic expense savings, or else management action can be taken to improve B's performance.

Before the merger, Company A's solvency ratio was $4800/8000 = 60\%$, which would probably be considered healthy for a company writing

generally low-risk, short-tail lines of business. On its own assessment, B's was 2000/3200, or 62½%. *Some candidates included only retained profit, or only share capital, in their solvency calculations. This suggests a lack of understanding of the elements of a balance sheet. This was higher than A's but as it was involved in higher risk, longer tailed business, it was probably less satisfactorily capitalised. A number of candidates got the first half of this point, but failed to notice the second. On Company A's valuation its solvency ratio was 992/3200, or 31%, which is a much less satisfactory position. This is an important point, which many candidates failed to notice. It is possible that Company B's valuation of liabilities is correct, but if we know that the two companies valuation of liabilities are on different bases, then a comparison without adjustment is liable to be misleading.*

The combined solvency ratio is $3204/11200 = 28.6\%$. This would generally be considered low for a company with a significant long tailed liability book of business. It may raise concern in the market, and is a lot lower than Company A's previous level, although Company A may well have built up its cash hoard in anticipation of the takeover, so its previous position may have been misleading. *Many candidates realised that Company A's solvency position had worsened as a result of the merger, but few seemed to realise that that is an automatic consequence of a major acquisition for cash.*

The overall expected profit if operations continue as before, including investment income on shareholders' funds, is $11,200 - 2,400 + 0.075 \times 25,500 - 7,616 = 3,096$ before management expenses are deducted. This will perhaps allow retained profits to be built up to boost the solvency margin, but will place significant constraints on growth, and possibly on Company A's dividend prospects.

It is difficult to see what benefit the takeover has brought to the shareholders of Company A, unless it can bring about significant improvements in the performance of what was Company B.