

# **INSTITUTE AND FACULTY OF ACTUARIES**

## **EXAMINERS' REPORT**

September 2012 Examinations

### **Subject CA1 – Actuarial Risk Management**

#### **Paper One**

##### **Introduction**

The Examiners' Report is written by the Principal Examiner with the aim of helping candidates, both those who are sitting the examination for the first time and using past papers as a revision aid and also those who have previously failed the subject.

The Examiners are charged by Council with examining the published syllabus. The Examiners have access to the Core Reading, which is designed to interpret the syllabus, and will generally base questions around it but are not required to examine the content of Core Reading specifically or exclusively.

For numerical questions the Examiners' preferred approach to the solution is reproduced in this report; other valid approaches are given appropriate credit. For essay-style questions, particularly the open-ended questions in the later subjects, the report may contain more points than the Examiners will expect from a solution that scores full marks.

D C Bowie  
Chairman of the Board of Examiners

December 2012

## **General comments on Subject CA1**

This subject examines applications in practical situation of the core actuarial techniques and concepts. To perform well in this subject requires good general business awareness and the ability to use common sense in the situations posed, as much as learning the content of the core reading. The candidates who perform best learn, understand and apply the principles rather than memorising the core reading.

The examiners set questions that look for candidates to apply the principles specifically to the situation set out in the questions, having read the question carefully. Many candidates gain few marks by writing around the subject matter of the question in a more general fashion. Detailed specialist knowledge is not required and nor is very detailed development of particular points.

Good candidates demonstrate that they have used the planning time well – an attempt to understand the breadth of the answer required combined with a logical flow is a big advantage in making points clearly and without repetition. This also enables candidates to use the later parts of questions to generate ideas for answers to the earlier parts. Time management is important so that candidates give answers to all questions that are roughly proportionate to the number of marks available.

## **Comments on the September 2012 paper**

The general performance was better than in April 2012. All the questions were on average reasonably well answered. For questions requiring application it is important to go beyond making generic points to score well. The comments that follow the questions concentrate on areas where candidates could have improved their performance. Candidates approaching the subject for the first time are advised to use these points to aid their revision.

**1** The management of risk by the country has three aspects

- Assessing the risks faced i.e. Identification, Measurement/assessment/impact, Financing the risks.
- Adoption of the risk control measures.
- Monitoring the risk portfolio

Risk identification is the recognition of the risks that can threaten the assets of the country – and in particular here the risk that the procession is not successful.

Will want to look at the possible risks that might cause an issue here – this will need a significant brainstorming of the possible issues. e.g.:

- There could be a risk that the event is not a success – lack of people turning up and any sponsorships not getting good value.
- The weather might be very poor and the event might need to be cancelled and the sponsor may want to have their sponsorship money back.
- The costs of organising each city might be more expensive than expected leading to the country having to pay out more for the procession than expected.
- Failure of transport to get the celebrities there or torch does not make it from other cities.

Also need to understand the correlation of the risks identified.

Risk measurement is the estimation of the probability of a risk event occurring and also look at its likely severity.

It gives the basis for evaluating and selecting the methods of risk control and alternative insurance or options to mitigate any possible issues.

Risk financing is the determination of the likely cost (in this case the success of the procession) of a risk and ensuring that adequate financial resources are available to cover the risk.

Need to consider the reduction in probability of the risk occurring following any mitigating actions.

Risk control measures are systems that aim to mitigate the risks or the consequences of risk events by:

- Limiting the financial consequences of the risk (there may be a knock on impact to the major sporting event – ticket sales if the procession is a disaster – and or sponsors of the procession may want their money back). The financial consequences comprise the losses if the risk event occurs, together with the costs of mitigation techniques used.
- Limiting the severity of the effects of a risk that does occur.
- Reducing the consequences of a risk that does occur.

Risk monitoring is the regular review and reassessment of the all the risks previously identified, coupled with an overall review to identify new or previously omitted risks. Or could review previous processions that the country or other countries have done and ensure all risks have been mitigated.

For example there could be a lessons learned session after each city procession (especially if they are on different days) to see if things could be improved (e.g. what to do if weather is poor or if celebrities fail to turn up).

*On average this question was reasonably well answered. A number of candidates suggested carrying out a high level preliminary risk analysis to decide if there were too many risks. This point was not relevant as the procession had already been decided on.*

- 2**
- (i) The surplus could be used to enhance the benefits of the members.  
This could be done by increasing the pension amounts, or changing the escalation rate at which they increase in the future, or improving proportions that are paid to dependents on death of the member.  
The surplus could be used to reduce future contributions of members and/or the contributions that the employer is paying.  
In some jurisdictions the surplus could be repaid to the scheme sponsor.  
Retain surplus to offset against future risks.  
The scheme could take the opportunity to de-risk by purchasing a bulk annuity contract for some or all of its members, or alternatively change investment strategy of any other de-risking opportunities.
  - (ii) For a benefit scheme, legislation is likely to be the major factor in determining the application of any surplus.

If a benefit promise has been made, legislation may insist that the benefit is provided whether or not any funds set aside prove to be sufficient.

Once benefits are enhanced it is difficult to remove these improvements.

Legislation may also require surplus to be used to increase the benefits being provided and may even dictate which categories of members should have priority for such increases.

The benefit scheme rules may specify benefits subject to discretion, or how and when surplus that emerges is distributed.

There may have been precedents set from prior good investments that may mean members of the scheme expect the surplus to be distributed in a particular way.

If there are rules directing how and when surplus is distributed then the rules should be followed.

If there are benefits subject to discretion, for example additional annual benefit increases dependent on the scheme financial position then this indicates where the surplus is anticipated to be used first.

There is a need to consider the financial strength of the scheme sponsor. If the scheme sponsor is financially weak then the scheme may need to retain a higher surplus to enhance the financial security of the scheme members.

Where funds are set aside are subject to beneficial tax treatment, it is possible that the surplus may be excluded from this beneficial treatment.

Also likely that the sponsor would be required to pay tax if receiving surplus funds.

The proceeds from the fine art assets may be taxed differently if they are distributed to members rather than staying in the fund.

Need to consider what would happen to the tax position of members following any increase in benefits.

If the sponsor is exposed for making up any shortfalls in the schemes funding it might be felt that they should benefit from any surplus.

Given this surplus has come from a good investment decision it might be decided to review the investment strategy and use to de-risk to safer but lower returning assets to ensure more security for the scheme.

If the scheme sees high volatility either from its longevity experience, benefits escalating at higher than assumed or investment strategy the scheme might want to retain the surplus to distribute later to allow for possible shortfalls in the future.

Also depends on just how substantial the surplus in both absolute terms and relative to the size of the total liability of the scheme.

Care would need to be taken to ensure any increases to benefits were to be seen as fair to all members (e.g. between deferred members/active members and also pensioners).

*Overall this question was reasonably well answered. Part (ii) was less well answered with many candidates not focusing on the one-off nature of the gain, the scheme rules and thereafter taking into account the various stakeholders to the scheme.*

- 3** (i) The usefulness of the internal data from elsewhere within the multinational group on motor accident risk will depend on how good a representation it is for the smaller country.

The usefulness of the internal data will also depend on the quality of the data (i.e. how complete is it and how up to date is it)

We are interested in both in the frequency of claims by type and the size of the claim for each type of risk.

Factors influencing both claim frequency and size of loss include:

- Driving standards (including tests) may also be very different between the two countries.
- There may be significantly different rules for driving in the other countries compared to the smaller country – e.g. the speed limits may be significantly different.
- The differences in road conditions between the countries is one consideration.

For example if the other countries the types of road and maintenance of the road may be very different resulting in accident experience differences.

The social factors in the smaller country may be very different than the other companies – for example there might only be a small proportion of drivers in the larger country of a particular type of person – and therefore the data might not be detailed enough anyway.

There may be other factors that are different in target market that is not representative of the aims of the smaller company (e.g. target drivers may not be well represented in the data anyway).

The terms of the contract (e.g. policy excesses) may be different resulting in differing claims experience.

The types of cars (for example top speeds) in the smaller country may differ significantly meaning accidents may be both more likely and more expensive.

- (ii) There are 2 ways for dealing with this issue, i.e. by allowing for proper risk factors in assessing the risk the driver gives the company or using proxy rating factors that look for ways of rating gender and age. It maybe that the latter would be considered by the regulators and challenged/ruled illegal if this was not in line with the legislation

Different age and sex profiles will have a preference or need for different levels or types of cover. The company could introduce different levels of cover and use this instead for rating the sub-group that represents a narrower or more predictable age/sex profile.

A more sophisticated form of pricing could be used that more directly reflects the risk and that age and sex are themselves used as proxies. For example satellite monitoring which identifies time, speed and location of driving.

The company could simply just combine females/males statistics and come up with one standard rate – but if other companies use more sophisticated rating factors they could be selected against.

The company could look at average distance travelled in a journey as a rating factor – possibly shorter durations are more accident prone than longer journeys.

Another factor could be how many miles driven in a year.

Data could be used to correlate the journey time to the accident rate.

But this may not have been recorded so could be difficult to get.

Number of accidents in the last x years could be used to rate and price accordingly for higher risks.

This could be linked to a No Claims Bonus policy (could be linked to time without having an accident).

Types of road driven on could be asked – reflecting higher speed accidents on the motorway as an example, it might be possible to get data on where the accidents occur (what types of road) but again this might not have been recorded and tracking the roads used could be very difficult.

Number of road traffic offences could be used to assess the ability of the driver and therefore the likelihood of having accidents.

Occupation – some occupations may have safer drivers than others (e.g. more experienced because regularly driving).

Types of car – some might indicate female drivers rather than male drivers and some might indicate older drivers than younger drivers – also the specs of the car might indicate whether accidents are more likely than other cars.

Uses of car – whether the car is used for business, commuting or pleasure).

Could look at number of years driving – with more driving experience reflected in the premium.

Postcode of member could also be used as a proxy if certain areas were populated by certain parts of the driving population.

Data might be available on the types of car that are more likely to have accidents – again the data might not have been collected.

*Overall this question was reasonable well answered. Candidates need to be aware that ideal data is often not available, but by understanding both the strengths and the limitations it can still be used. The use of verifiable data with the limitations clearly understood is better than use of expert judgement alone.*

- 4** (i) Postcode/Address  
Date of Birth/Gender  
Marriage status  
Height and weight of the applicant  
Smoker status/number of cigarettes smoked  
Alcohol consumption  
Questions about:
- The medical history of the applicant
  - The medical history of family members
- Questions around lifestyle/hobbies  
Amount of cover or premium required/term required and possible options  
Occupation (or previous occupations) or income  
Is anyone else going to be included on the policy  
And if so similar questions to the ones asked about the first life will need to be asked.
- (ii) The main tool would be underwriting prior to acceptance of the risk
- The cost and benefits of underwriting need to be balanced as part of the risk management process.
- Main aim is to try and protect the provider from anti-selection, in this case to ensure that the individual is in good health.
- The underwriting process identifies both temporary effects (initial selection) and long-term effects (e.g. lifestyle, sex etc). Restricting the benefits for an initial period e.g. life cover starts after 2 years and only return of premium on death from natural causes in first two years, can eliminate or reduce the need to underwrite for initial selection effects.
- For regular premium policies there is a need to have the premium paying period that reflects the risk exposure. This can complement the underwriting process to limit the pooling of risks, for example limiting premiums to age 85 caps the total premiums payable relative the sum assured on death.
- For substandard risk this will identify the most suitable approach, i.e. reduce the sum assured, cap to a maximum level, or increase any premiums, or exclude certain perils, or even decline the individual if the risk is too great.
- Will help in ensuring the claims experience does not depart too much from assumed in the pricing.



Medical evidence should be asked for – that is evidence should be obtained about the health of the applicant to assess whether he/she attains the required standard of health.

This is particularly important given the target age of the applicants.

The aim would be to get a lot of information around the medical history of the applicant and this should be over the whole lifetime.

This could be done through general questions on the proposal form.

More detailed questions on the history if any of the initial questions prove to show anything that warrants more information.

Reports from medical doctors over the lifetime of the individual.

Medical examination and/or specialist medical tests.

Given that the company is targeting the older ages then it should consider what changes it would make to the pricing based on some expected general answers – particularly being careful around what it may or may not decline to insure.

Financial underwriting – e.g. will need to consider the level of cover that has been asked for and whether suitable.

Another tool it will need to consider is the claims control systems.

Claims control systems will mitigate the consequences of a financial risk that has occurred.

They guard against fraudulent or excessive claims.

Death certificates would be required to be seen and verification processes around checking these.

Management control systems will need to be sufficient.

It is important that the data is recorded correctly on the systems.

Particularly important to record any changes to the application correctly e.g. reduced Sum assureds.

It will need to monitor the liabilities take on are as expected and ensure that it protects against aggregation of risks (e.g. insuring all members of a retirement home needs to be guarded against).

Need to ensure care is taken on any options of the contract, in this case whether any extensions will be offered at the end of the period – and if so on

what terms would they be offered – suggestion would be not to offer anything as standard.

*This question was the best answered on the paper.*

- 5** (i) The differences relate primarily to the split between fixed/guaranteed benefits, variable/uncertain benefits and flexibility.

Under a without profit contract, all the benefits are fixed and known with certainty (assuming that the provider doesn't default). That is the insurance company has no discretion over the amount of benefit.

Under a with profit contract, part of the benefit is guaranteed and part is variable at the discretion of the insurance company.

That is, policyholders are entitled to receive part of the surplus arising from the business. Hence the total amount payable will depend on this surplus and is thus unknown.

Typically there will be a fixed guaranteed benefit, which will be increased by annual bonuses that are also guaranteed after they have been declared. Additional non-guaranteed bonuses may be added at the time of a claim.

The most important decision will be the breakdown between reversionary (annual, guaranteed) and terminal (final, variable) bonus.

If reversionary bonuses are relatively stable i.e. there is an expectation over the amounts to be paid, the contract will be similar to a without profit contract.

If reversionary bonuses are volatile i.e. most of the bonuses come from terminal bonus, then the contract will be similar to a unit-linked contract.

Under a pure unit-linked contract, all the benefits are variable. That is, there are no guaranteed or fixed benefits. Although under some contracts, minimum guaranteed benefits may apply in certain circumstances e.g. death as add-on features to the core policy.

The benefits are also potentially uncertain with regards to non investment risks (for example the level of charges may be different between contracts, with pure unit linked contracts charges could vary to a greater extent where as under with profit they are implicitly included in a With profit contract). Surrender values may also be calculated differently under the contracts.

The value of the benefits payable depends directly on the value of the assets underlying the units that premiums are invested in. Hence benefits are unknown until a claim arises.

- (ii) On death before the end of the term, it is possible that the guaranteed cash benefit will exceed the value of the units held in respect of the policyholder.

This will be especially true if death occurs shortly after the policy is taken out when the number of units held will be relatively low.

Hence the insurance company may be liable to pay a benefit in excess of the assets it holds.

In order to cover this extra potential liability (relative to a policy without the guarantee), the insurance company will need to set up reserves.

This will need to be a cash reserve (since the extra benefit is expressed in cash terms) as opposed to the unit reserves that will be needed to cover maturity benefits (where the benefit is in the form of unit values).

The problem is exacerbated because unit values and hence reserves required will fluctuate and so the extra potential liability is unknown. In particular, if unit values exceed the minimum at a given time, there is no guarantee that they will continue to do so in the future.

Policies that do not have the guarantee will not need these extra reserves since any benefit will be covered by the unit fund.

- (iii) Clearly the level of the reserves required will depend on the level of the guarantee (in relation to premiums payable). The higher the guarantee in absolute terms, the higher the potential extra benefit.

Likewise, the term of the policy will be a factor. A longer term will mean that there is relatively less chance of the guarantee biting as more premiums are paid (and assuming positive investment returns). However a longer term may imply greater volatility and uncertainty.

The extra reserves are required to cover a death benefit. Hence mortality rates will be an issue. This will primarily relate to average age and sex of policyholders. But factors such as underwriting, selection and general trends in mortality will need to be considered.

Withdrawal rates might affect the level of reserves that need to be held – for example if these are significantly higher than expected then there might be a need to hold larger reserves for the remainder (particularly if linked to the better lives leaving).

To an extent such factors may be driven by competition in terms of how many companies offer similar products and the nature of the guarantee relative to other products in the market.

Legislation may specify the level of reserves to be held and/or the methodology and assumptions used to calculate them.

The general risk appetite of the insurance company may be a factor. In particular, they may be more cautious than is strictly necessary i.e. introduce

margins into deductions. Alternatively, a more optimistic view may lead to more business and potentially more profit to cover any risks.

Such risk appetite may be driven by the availability of other sources of capital (in addition to deductions from premiums). High general reserves or free capital or the possibility of using cross subsidies from other lines of business could be relevant.

The investments backing the units will be a factor. Higher expected return assets may imply that the guarantee has a lower chance of biting although if it did bite, higher volatility may imply that the extra payments needed could be relatively high. As with any guarantee, this feature may lead to a more conservative investment strategy designed to minimise its cost.

- (iv) In general, when valuing a guarantee, a stochastic model is the most appropriate approach to use.

In this case, the most important parameters will relate to the chance of the guarantee biting i.e. mortality rates and the cost of the guarantee i.e. fund values at death based on investment returns.

It is likely that mortality rates are reasonably predictable (after allowing for any selection) and so they will probably be modelled deterministically.

Investment returns are likely to be more variable and so they will be modelled stochastically. That is distribution functions will be chosen to represent the expected pattern of potential returns from each asset class. By running the model many times, an estimation of the cost of the guarantee under various investment outcomes can be made.

The choice of assumptions should reflect the degree of prudence required. That is, assuming high mortality rates, low and/or volatile investment returns will increase the calculated cost of the guarantee above a best estimate approach.

*The weaker candidates struggled with parts (ii), (iii) and (iv). This question required candidates to consider the broad range of factors that affect the expected cost of guarantees.*

- 6** (i) The sports club is looking for an injection of cash probably in return for payments back over a period of time.

The sports club could issue a fixed interest bond.

It issues bonds of a stated nominal amount.

The holder of the bond will receive a lump sum of a specified amount at some specified future time together with a series of regular level interest payments until the repayment of the lump sum.

They could issue an index linked bond.

The interest payments and the final cash repayment are linked to an index which reflects the effects of inflation.

The sports club may want to do this so that the interest payments are more closely related to its expected income. It has the additional benefit that of lower interest payments at the start of the contract.

If a new stadium is being built no interest payments may be payable during the construction phase so that the costs of the loan more closely relate to the income from the stadium.

Where a bond is issued it may be secured on an identifiable asset, such as the stadium to reduce the investor's exposures to the business risks. This can reduce the cost of the borrowing, but needs to be balanced against impact this has on the business.

The sports club could issue ordinary shares (equities) for all or part of the sports club.

Equity shareholders would then own part or some of the company.

Equity shares do not earn a fixed rate of interest as with the bonds. Instead they are entitled to the clubs profits in proportion of shares owned. The distribution of these profits are called dividends. Equities can be held in perpetuity.

They are not know in advance and in this case will depend on the performance of the sports club (gate receipts), any future transfers of players and ultimately the success of the club in future years.

The club could also decide to take a loan – either on a repayment basis or an “interest-only” loan.

The club could offer supporters to invest in return for free seats, tickets or use of facilities.

The club could try and do securitisation of future incomes from season ticket sales as an example.

- (ii) The main focus of the investor will be to get a good return for the risk it is taking on.

The investor of the bond will want to ensure that the sports club will pay the coupons and the final repayment, or that there is an adequate charge over assets as security – i.e. they will be concerned that the club will default on the asset.

In order to be convinced of this the investor will want to look at the plans for the club (as well as the character of the club, e.g. past history and its likelihood to repay) – particularly around how it will grow and perform well (e.g. what gate receipts does it expect to see over the time, will the ground be filled with new supporters or is the demand already there).

They will want to understand how the large repayment at the end will be financed – is this expected to come from holding back any profits made – and if so will this hamper its ability to grow and maintain the support that it is expected.

Or will it be funded by player transfers or is there expected to be prize money if the club is successful, or collateral value of the stadium.

If the investor is for equities they will be looking at similar things as above but will want to know when they are likely to get their investment back, i.e. when will dividends start to be paid, at what level and will they be sustainable.

What is the expectation for the value of the shares to rise (i.e. capital growth).

The investor will also be interested about the liquidity of the assets – i.e. will they be able to sell on their investments should they need to and will there be a clear view of the valuation.

If they purchase index linked bonds they will want to have a good view of expected inflation in the future.

Alternatively the investor may be looking for an ego trip in owning a sports club.

The investor will also need to consider the size of the amount required and the size of the club – is it reasonable.

The investor will also need to understand his current status (i.e. with regards to the other investments they currently hold and the tax position) along with possible other opportunities.

- (iii) Holding property shares means the individual will have better diversification – when holding just the stadium the individual is exposed to the success of the club and the possible issues this might cause.

The volatility could be huge – holding just the stadium may have no true picture of its value on a regular basis – it could move significantly over time – compared to shares which can easily be tracked.

Control – the investor will have little or no control over the management of the portfolio of property shares – with the stadium they could expand to make it more valuable – possibly having more uses than just for the sports club (e.g. music gigs).

Loss on forced sale – property shares are less likely to be forced sellers – if the investor needs to sell the club/stadium then they might not get good value.

Marketability – Property shares are individual shares that can be sold separately (i.e. portfolio is divisible) and are more marketable (i.e. sold in a shorter time period) than the stadium/sports club would be.

Nature of the asset – There are differences in the nature of the underlying investment. The sports club introduces an exposure to both a sports business risk and property risk which is quite different to property shares.

Taxation Treatment – they may differ and there might be benefits for the investor.

- (iv) If the investor is using this as an asset to back liabilities then there might be currency mismatch.

Further problem might be the need to appoint an overseas custodian – this is probably not a big issue in buying a sports club.

There might be rules on overseas ownership of sports clubs.

There might be rules on the control of the sports club, so ownership may not correspond to full control over the management of the club.

Legal risk, the laws and legal environment will be different between the two countries altering the risks and the options available for legal remedy. There could also be a risk that funds are repatriated in the future. There is also a regulatory risk that the club breaks the rules.

There might be different accounting practices between two different countries.

There may be language problems between the investor and members of the board of sports club and may therefore mean the club is run in a different way to what the investor would like.

There could be time delays between where the investor lives – this could lead to difficulties in managing the club.

Taxation could vary between the two different countries.

The club may be poorly regulated leading to the board using a separate company to take the transfers of players and hence the investor losing out in terms of possible profits.

*Overall this question was reasonably well answered. However, there were a number of candidates who presumed that securities issued to fund the development of the stadium would need to be listed on a trading exchange; however, this need not be the case, particularly for smaller issues.*

- 7** (i) Potential customers are those who may have difficulty in obtaining credit from other, more traditional, sources.

This could be due to a poor credit history.

Such relatively small amounts for short terms would often be covered by credit cards or overdrafts – hence these facilities may be restricted for these borrowers. Perhaps they have high debts with other lenders, or do not meet the other credit underwriting criteria for other lender.

Potential customers are likely to be on low, variable or uncertain incomes.

Potential customers have an urgent need for cash.

Potential customers are unlikely to be financially aware.

Almost certainly, they will have low readily accessible savings to act as a reserve source of funds so need loans to absorb the variability of income.

The main motivation behind taking out such loans could be to manage cashflows. That is income doesn't match outgoing. For example, many low paid workers may be paid monthly (or state benefits could be paid monthly or fortnightly).

However, it is likely that their expenditure could be more frequent or less predictable e.g. emergencies or unexpected outgoings (repair car, buy a new fridge etc.).

Hence, such loans could be used as advances on wages or benefits to be repaid out of known future income.

- (ii) (a) A short maximum term will tend to reduce default risk. In that it will be easier for the borrower to plan and this loan will be foremost in their thinking. A longer term would mean more uncertainty i.e. unexpected events that reduce the chance of repayment. The term of the loan should be aligned to its intended purpose.
- (b) A low maximum loan for new customers will also reduce default risk. In that smaller amounts may be easier to repay. Also it will mean that the institution is less reliant on particular individual loans i.e. it is diversified across customers. It is a crude way of underwriting given the lack of information about new customers.

But the main objective could be linked to business risks. In that by not giving better customers something more suited to their risk profile, these customers could go elsewhere. Hence the company could be left with lots of potentially unprofitable business.



The trust point arrangement is a form of experience rating. Essentially it protects against any operational risks inherent in an ad-hoc way of deciding on the terms appropriate for particular customers.

- (c) The interest rate should reflect the operating expenses, expected losses and risk. The high yield will be primarily designed to mitigate the risks of making losses. These could arise from many sources but given that we have a new company in a new market in general the institution is looking to add in margins against unexpected poor experience.

Clearly the higher the gross return on successful loans, the more cushion the institution has against unsuccessful loans or other revenue shortfalls.

- (d) Internet only business will tend to mitigate expense risk. In that such a route will involve lower sales, communication, admin and staff costs. An Internet only route will also mean a standardised approach, which will also reduce costs i.e. no negotiating or special terms or options.
- (e) Having a single repayment loan reduces complexity and expenses. So again this looks like an attempt to mitigate expense risk. For example it removes admin and other problems around missed interest payments – e.g. re-negotiating or re-scheduling payment. The process is clearer and easier to manage.

However, perhaps more importantly, it will also make repayment much more likely. Hence risks relating to uncertainty will be reduced. This is partly a default issue (though if funds aren't there, repayment may be blocked) but it avoids delays due to forgetfulness or communication or other things taking priority. This will better help the institution plan and manage risk.

- (f) Having bank details in advance will enable procedures to be set up and details checked so that repayment will be made when required. Again this reduces delays and admin hassles around repayment so reducing uncertainty and cost. The bank details can be used to check information supplied on the application, and having a bank account itself can be used to reduce credit risk i.e. banks have credit underwriting requirements to open a bank account.
- (g) A simple and fair early repayment facility will reduce default risk. In that borrowers may have the funds to pay back now but they may not do later on. Hence these loans may be a priority for borrowers to repay and allowing them to do so will protect the institution.
- (h) Allowing for extensions attempts to mitigate default risk. It could be that unexpected outgoings mean that the repayment can't be made in full. Extending by up to 30 days (i.e. probably including the next pay day) may mean that the original debt can be met. That is no extension means a full default an extension may not do so.

The caveat concerning payment of fees and charges is important. Clearly, if these can't be met, a full repayment at a later date is unlikely. Hence it may be better to avoid the expenses and hassles of an extension that may serve no profitable purpose.

- (i) Having higher charges on extensions will attempt to cover default risk in that extended loans will be more risky and so higher margins are needed. As before, they will also meet extra expense risk and enable better customers (i.e. those who repay on time) to be charged less.
- (j) Having a clear and comprehensive summary of interest and charges will primarily address legislative risks. Given the high interest, there is scope for accusations of exploiting the vulnerable to be made. Full disclosure mitigates mis-selling risks. It will also likely comply with legislation and will help counter claims of unfairness (a TCF point) or lack of clarity.
- (k) Quick decisions on acceptance will be attractive to customers and so boost business volumes. Again this is linked to the target market who, may be put off by longer processes. This will be especially significant if competitors take longer to process applications – so a business risk.
- (l) Phone and e-mail contact details will try to reduce uncertainties around repayments at low cost. Notification can be given just prior to repayment pointing out that funds will be needed to cover repayments. Should the repayment fail, it will be easy to contact the borrower to address problems – harder for them to avoid communication.
- (m) The provision of income details will be a way of assessing risk and so quoting terms (or rejecting applications) that reflect risk. It is a very crude device to assess ability to repay.
- (n) Requiring little information from potential customers will make the arrangement more attractive (again bearing in mind the target market) and will so boost business volumes. Easy procedures could be a useful selling point relative to competition, which could help a new lender differentiate it from traditional lenders.
- (o) However, the aim is probably to create an impression of being a responsible lender. This could be important for a new institution where poor publicity or comment could affect business volumes. It could offer re-assurance to potential customers and so avoid discouraging potentially good business – again a business risk point.

The amount of information collected needs to correspond with amount of information a target potential borrower is willing to enter to obtain the loan i.e. the effort they are willing to go to. Requesting more information will deter such borrowers and restrict the business volume.

- (iii) As described above, the aim of employment and income data is to better assess risk and so charge a suitable interest rate or reject applications.

Clearly reliable data will help to determine the ability of an applicant to meet projected repayments.

In particular, it will help to identify people who should clearly be rejected – low or no income.

As such it will reduce losses from very high-risk business.

Asking merely for a declaration may not be good enough to assess risks.

People who are desperate for credit will embellish or exaggerate income.

Given the circumstances there will be little penalty the institution could impose for false declarations. Someone who defaults won't be able to pay penalties or civil compensation.

Having proof e.g. payslips or bank statements will give more certainty to the assessment process.

However, income is only one part of the equation. High income but high outgoings will also be risky. So proof may not help in most cases since it doesn't give the full picture. Combined with a credit check however, it could help. But, past or even current income may not help as things can change even over the short term. Loss of job, fluctuations for the self-employed or new debts will make proof less relevant.

However, the main problems will be extra expenses, hassle for applicants and delays that proof will entail.

The whole business model is based upon speed, simplicity and low cost.

Hence asking for proof would be a fundamental contradiction of the basic philosophy – for little real benefit.

Asking for proof could also assist in the detection of identity fraud.

*Most candidates scored reasonably well on all parts of this question. However, the weaker candidates did not consider fully the relevance of the principal features of the loan product and this was required.*

## **END OF EXAMINERS' REPORT**