INSTITUTE AND FACULTY OF ACTUARIES

EXAMINERS' REPORTS

April 2020

Subject CP1 - Actuarial Practice

Paper One

Introduction

The Examiners' Report is written by the Chief 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.

The report is written based on the legislative and regulatory context pertaining to the date that the examination was set. Candidates should take into account the possibility that circumstances may have changed if using these reports for revision.

Mike Hammer
Chair of the Board of Examiners
July 2020

A. General comments on the *aims of this subject and how it is marked*

1. The aim of the Actuarial Practice subject is that upon successful completion, the candidate should understand strategic concepts in the management of the business activities of financial institutions and programmes, including the processes for management of the various types of risk faced, and be able to analyse the issues and formulate, justify and present plausible and appropriate solutions to business problems.

2. This subject examines applications in practical situations 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.

3. The examiners set questions that look for candidates to apply the principles specific 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.

4. Good candidates demonstrate that they have used the planning time well to understand the breadth of the question and to structure their answer - this 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.

5. Time management is important so that candidates give answers to all questions that are roughly proportionate to the number of marks available.

6. 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.

7. Candidates who give well-reasoned points, not in the marking schedule, are awarded marks for doing so.

B. Comments on *student performance in this diet of the examination.*

The pass mark for CP1 is assessed over the 2 papers with the pass mark for this session being a combined 57. Paper 1 scored marginally higher than Paper 2 with the average scores being circa 1% different between the papers. This session was generally answered similar to April 2019 session, but candidates tended to struggle with the Paper 1 questions that required higher order skills.

C. Pass Mark

The pass mark for this exam was 57.
997 candidates presented themselves and 454 passed.

Solutions

Q1
The variations in mortality with principal risk factors are observed most strongly at working ages. These variations can be large and have a material financial impact on insurance companies/financial institutions. [1½]

These variations have been seen to continue after retirement but reduce at the very highest ages, although the evidence in disputed. This convergence of mortality between subgroups at higher ages is referred to as mortality convergence. [2]

This is complicated by low volumes of data at higher ages. [½]
[Marks available 4, Maximum 2]

This question was generally answered well by most candidates who knew the relevant part of the course.

Q2
Regular risk reporting is vital so that management can understand and successfully manage the risks within its business. [1]
It allows the management of a business to:
Identify any new risks faced by the business [½]
Obtain a better understanding of the risk faced by the business in terms of quantifying the materiality and financial impact of individual risks [½]
Determine appropriate risk and control systems to manage specific risks [½]
Proactively monitor and manage the effectiveness of risk and control systems within its business [½]
Assess whether the risks face by a business are changing over time [½]
Assess the interaction between individual risks [½]
Appropriately price, reserve and determine any capital requirements for its business [1]

Increases confidence of investors/shareholders … easier to raise more capital. [1]
[Marks available 6, maximum 4]

This question was answered very well with most candidates scoring nearly full marks.

Q3
(i)

(a) Systematic risk is risk that affects an entire financial market or system, and not just specific participants

OR the risk of the individual share relative to the overall market. [1]
It is not possible to avoid systematic risk through diversification. [½]
(b) Diversifiable risk arises from an individual component of a financial market or system. [1]

[Marks available 2½, maximum 2]

(ii) *(Note to markers - Please give credit for alternative relevant examples below.)*

Co may be rational and assess that it can make greater profits, even allowing for increased risks of not diversifying, than by not diversifying. In other words, in a strategically better place, compared with competitors, with this one product. E.g. may: [2½]

- have a unique/highly profitable product, perhaps protected by patent, that earns them more than alternatives e.g.
- specialist invention
- may have government backing/incentives for the particular product
- may expect its demand to be insensitive i.e. not significantly reduced by economic/income etc. trends [3]

- face costs of diversifying that outweigh benefits e.g.
- can't compete in the market with other products
- has already had problems with other products, doesn't want to tarnish brand
- has specific production line/expertise in the one product, not easily transferable to another product
- benefits from economies of scale
- is in a market with high barriers to entry for competitors
- get distracted with increased costs, lack of focus on existing product, if begin to diversify [2]

- be able to withstand the risks that come with lack of diversification e.g. has
- sufficient risk appetite
- sufficient capital/liquidity to withstand losses/volatility
- the blessing of the owners/shareholders
- a clear exit/later diversification strategy from market [2]

- The company may be part of a diversified group. [½]

Co may not be rational i.e. not concerned about risk/profitability e.g. family business, non-financial motives. [1]

[Marks available 11, maximum 6]
[Total marks available 13½, maximum 8]

(i) This part was answered very well, with most candidates scoring full marks.

(ii) This part was answered less well with most candidates not considering sufficient breadth in their answers and focusing on similar examples about diversification rather than thinking widely enough on the possible scenarios.

Q4

The premium could be calculated such that:
Value of premium(s) = Value of benefit + value of expenses + contribution to profit/contingencies/risks.
OR
Differences in expenses and contributions to profit/contingencies/risks will affect the premium charged. [1]

Different payment mode/frequency of premiums may lead to different expenses. [½]
Other factors will also need to be taken into account; for example:

- Taxation e.g. one government offers incentives for healthcare insurance ;
- commission — although this might be included as an expense;
- the cost of any capital supporting the product;
- margins for contingencies;
- the cost of any options and guarantees;
- the basis that will be used to set future provisions for the liabilities — as this maybe different from the basis used to determine the cost;
- investment income; and
- reinsurance costs. [5]

Although the theoretical value of the benefit may be the same, the detail of the benefits themselves may be slightly different in the two countries and this may affect the expenses and contingencies. [1]
Regulations and solvency requirements may be different. This could lead to differing expenses and/or contingency loadings. [1]
The benefit may have existed in one of the countries for a long time and so is familiar to potential policyholders but may be new to the other country. The company could charge premiums that differ from the actual cost in the two countries due to the differences in the two markets. [1]
For example:

- The provider's distribution system for the product may enable it to sell above the market price or to take advantage of economies of scale and reduce the premiums charged in one of the countries but not the other. [½]
- The provider may have a captive market such as an affinity group that is not price sensitive in one of the countries but not the other. [½]

The affordability may be different between the two countries. [½]

- The provider may choose to sell a product that covers its fixed and variable costs but does not cover its expense overheads and minimum profit requirement. The purpose of the strategy is to stimulate sales of the product or other more profitable products. This approach may be needed in one of the countries. [1]
- If there are only a limited number of providers in the market, demand may exceed supply and so higher premiums can be charged. If there are many providers in the market and customers can choose between them, premiums will fall. One or both of these situations could exist. ie different stages of underwriting cycle. [1]

Similarly the level of demand may vary, leading to differences in premiums charged. Cultural differences may exist between countries e.g. tendency for family to provide care to relatives. [1½]

- A cheap product may attract customers to other, more profitable products of the company. The company may expect greater profits across its whole product range. This approach may be considered suitable in one of the countries. [½]
- State provision and eligibility for long-term care very different between two countries so there is a significant difference in the policyholders' risk profiles that drives differences in the risks/contingency loadings. [1]

[Marks available 16, maximum 8]

This question was answered reasonably well but those candidates that started off with the 3 main components and built their answers off these, structured their answer better and picked up the breadth of marks on offer.

Q5

(i)
A company needs capital to deal with the financial consequences of adverse events, [½]
to provide a cushion against fluctuating trade volumes/profits/dividends or [½]
to build up funds within the company prior to a planned expansion. [½]
In addition, all companies will also need start-up capital before they can start in business. They will need this to obtain premises, hire staff, purchase equipment and other items. [1]
A trading company will need capital for cash flow management. They will need to finance stock and work in progress as suppliers of goods and services will usually need to be paid before the company receives payment for their finished product. [1½]
To demonstrate financial strength/credit rating or required by regulation. [1]
A provider of financial services will have additional capital needs due to the contingent benefits provided and associated risks. [½]

[Marks available 5½, maximum 3]

(ii)
The new policies will still be offering life cover which the company has experience in. However, the new policies will be aimed at different customers. These customers are likely to be significantly younger and will be buying the policies to cover a different need. [1½]

So the company's own mortality data will not be suitable to price these products. They will need to use other sources to estimate mortality initially and this may mean that additional reserves need to held to cover the risk that these estimates are incorrect. [1½]
The company will need to market these policies differently and this will incur additional costs. [½]
There will also be additional costs relating to setting up new systems to administer the liabilities as well as collecting premiums and other administration expenses. [1½]
Additional reserves may also be needed to cover the risk that other assumptions may be incorrect e.g. volumes of business, lapses. [1]
The regulations for this line of business may mean that higher reserves will need to be held. [½]

The launch may be successful and lead to higher business volumes; more new business strain. Possibly need for more office space as well. [1]

There may be increased operational risks. [½]

[Marks available 8, maximum 4]

(iii)
The mutual company can increase their working capital by retaining surpluses within the business and not distributing them as bonuses (as there are no shareholders). [1½]
The mutual company can raise capital through the issue of subordinated debt. The repayment will be subordinate to the calls from other creditors including policyholders. Or they could use securitisation e.g. capitalise future profits. [1½]
They can limit the capital they need by passing some of their liabilities to a reinsurance company. A reinsurance company may also be able to provide advice relating to pricing and other aspects relating to the new policies which could help to reduce the capital needed. [1½]
Reinsurance companies can also contribute towards the initial capital strain of selling the new business by contributing to the initial expenses by means of reinsurance commissions or FinRe. Derivatives may be used to stabilise/protect the capital position. [1]
Actuaries can help to match and manage the capital requirements by modelling. They will need to model both the existing business and the projected new business. The model can generate the amount of capital needed for the mutual company's business plans to be achieved at a given ruin probability. [1½]

Internal restructuring may be possible to increase capital eg

- funds could be merged;
- assets could be changed and/or investment strategy altered;
- the valuation basis could be weakened. [1½]

It could reduce volumes to reduce the initial capital requirements [½]

The company could more accurately model assets and liabilities and therefore remove any excess margins held in the modelling [1]

The company could demutualise to be able to issue shares or debt securities (although this would be a major change to corporate structure and would take time). [1]

[Marks available 11, maximum 4]
[Total marks available 24½, maximum 11]

(i)	*This part was answered well with most candidates scoring well.*
(ii)	*Candidates struggled with this part with a number of candidates failing to get past the launch of the product*
(iii)	*This part was answered well although some candidates did not pick up that the company was a mutual and missed some of the easier marks.*

Q6

(i)
<u>Assessing whether the risk is acceptable</u>
Protect from anti-selection/information asymmetry;
Protect from fraud/non-disclosure. [2]
Ensure the policyholder is charged the appropriate premium for the risk the insurer is taking on by classifying the risks into broadly homogenous and credible groups [1]
Determining which policyholders should have standard terms and which should have special terms applied, and what those appropriate special terms should be. [1½]
This should help in ensuring claims experience does not depart too far from that assumed in pricing [½]
The larger proposals the financial underwriting procedures will help to reduce the risk from over insurance [½]

It may also include assessing the risk in the context of the other risks in the portfolio. [1]
Reinsurer could require underwriting [½]

Claims underwriting to control fraudulent or excessive claims. [1]
[8 available, Maximum 4]

(ii)
(Note to markers - do not give marks for any issue raised unless it includes something that needs to be changed for overseas vs domestic business.)
Term assurances pay out on death, so underwriting processes need to be modified to allow for likely less understanding of mortality risk on overseas business. Processes need to be modified particularly in areas where mortality risk could be underestimated. [2]
<u>Initial underwriting</u> e.g. Proposal form will need to be modified because of different quality of available information from overseas. The questions asked may need to be changed to reflect lower levels of financial sophistication. The systems to collect the information may need changing e.g. no internet availability in underdeveloped country, or some lives need to be assessed face-to-face. [3]
There may be no state healthcare system, private doctors may report in different ways from home country. Doctor Questionnaires/Forms may need to be redesigned/translated to obtain necessary information. The fees structure will need to be modified, and how to deal with possible lack of specialist testing that could be undertaken for large sums assured. [6]

Financial underwriting may be limited by less ability to verify financial information e.g. cash-in-hand workers. [1]

Interpretation of information will need to be modified. May need to employ specialist medical advisors to help with unfamiliar diseases found in overseas country. Similarly cultural expertise will be needed to understand how lifestyles affect mortality in the overseas country e.g. prevalence of riding motorbikes without helmets, drug abuse, standard of housing. [3½]

Application forms/information collected may need to be translated. [½]

The need to work within the overseas legal system will need to be allowed for. Need to determine the extent to which fraud/nondisclosure may be penalised by insurer eg can payment on death be withheld/reduced. Also what factors can and can't be asked about during underwriting eg may not be able to use gender as a rating factor. [3½]

Specification of terms may need to be modified. Any competition in overseas country, and what do they offer. Similarly any legal restrictions on what insurer is able to do. [2]

Claims control systems likely to need modifying for overseas business. Need to make sure fraudulent claims can be detected. Overseas country may have a less reliable death certificate system. Chances for fraud may be increased eg easy for a person to "get lost" in a remote territory and be declared legally dead by overseas regime. Particularly if there is a corrupt culture. Or ID fraud is easy. May need to employ claims investigators on the ground overseas. Careful to balance costs against benefits eg may investigate only larger/particularly suspicious claims. [5]

Other drivers for change

The reinsurer may impose special requirements for the underwriting process;
May need to react for likely lower average sum assured. [1]

Regulation may be different

[½]

Operational differences could mean that different underwriting processes need to be used and the underwriting staff may be less experienced in the short term [½]

[Marks available 28½, maximum 8]

[Total marks available 36½, maximum 12]

(i)	*This part was answered very well by most candidates*
(ii)	*This part was not answered very well with the better candidates structuring their answer well to consider all angles and thereby covering more of the breadth on offer.*

Q7

(i)

It is reasonable to assume that age and gender are already in use to subdivide data. [½]

Differences in occupation between schemes [½]

Some occupations are naturally heathier than others - which will have a material impact on the mortality of the individuals of the pension scheme. [½]

A person's occupation tends to determine the income of the person. If the pension scheme has a link to salary then this will determine the income in retirement.
Income enables them to live a certain lifestyle, will determine housing quality and access to healthcare, nutrition - all of which impact the mortality. [1½]

Housing - the level of housing determines influence on mortality and morbidity - how susceptible to illnesses as an example: [1]
Geographical areas [½]
This will impact the quality of medical services, or certain climates may lead to different diseases as examples [1]
Education - certain industries might have a higher educated workforce [½]
Indeed some companies may have promoted education on things like health care. [½]
[Marks available 6½, maximum 2]

(ii)
Information should be as full as possible to try and understand the mortality experience in sufficient homogeneous groupings. [1]

Age split. [½]
Location - This would include the following information if available:
Postcode - or equivalent

City

Suburbs with individual cities

Street name - although this may be too few houses in which order to make conclusions [2]

In addition to the general location it would be useful to know the types of housing the member lives in e.g. flat, detached house, terraces etc. And how close the housing is to each other. [1]
Location of hospitals/doctors are all linked to the general location above but proximity to houses would be interesting and how much of the general population is this covering. [1]
Salary/Pension - the current pension would be a useful proxy to the income the member may have and therefore the type of lifestyle and access to healthcare available. [1]
However care needs to be taken because this may only be part of the members income and therefore an understanding of the level of service would be useful to determine the general salary level when they retired or left the company would be useful. [1]
Occupation - sufficient information on what the individual persons job would be useful but probably easiest is to find out whether the work was white collar/blue collar work (or equivalent eg exec, managerial, staff). In addition if possible how long the work was done for and if they changed - e.g. did the individual go from being a machine operator to exec level (salary history might help with this). [2]
If available the level of education obtained would be useful - e.g. secondary school, degree, professional qualifications etc. The higher the level the better understanding of the lifestyles information would be obtained. [1]
Unlikely but if any genetic testing (or medical underwriting available) would be helpful information in assessing the experience. Indeed if this wasn't available smoker status/prevalence in the companies could be useful. [1]
Gender split would be useful [½]
Marital Status [½]
Medical History and Family History of certain conditions [½]
However in collecting all this information care needs to be made to ensure sufficient levels of analysis can be made (i.e. the data is sufficiently credible and reliable) in order to make a conclusion, so exposed to risk data will also be required. [½]

Any one-off events that have affected the information needs to be allowed for. [½]
[Marks available 14, maximum 7]

(iii)
Information to be used to calculate the TVs needs to be relevant and have statistics backing up - e.g. if the North of the country has lower mortality and is justifiable then paying a TV reflecting this would be considered fair - i.e. it reflects the value of the members pension being given up. [1½]
However the data/analysis needs to be sufficient to justify - if it is based on low numbers of death then it could be spurious on which to justify any TV. [½]
It will also need to consider how the data was collected for and for what purpose - if the information is to be used to set a TV and the member wasn't aware that could be considered unfair. [1]
Also how old is the information collected - and is it reasonable to still assume it is relevant. [½]
What does legislation say around the use of the information [½]
It is important that TV's are fair and therefore the information needs to be accurate when calculating. [1]

The costs of collecting and maintaining the information need to be allowed for. [½]
[Marks available 5½, maximum 3]
[Total marks available 26, maximum 12]

(i) *This part was answered well by most candidates.*
(ii) *This part received mixed responses, some candidates went into lots of detail on the process and therefore did not go into enough depth. Those candidates who made a range of points and then expanded scored well.*
(iii) *Few candidates managed to translate part (ii) into the possible usage of it for TV's with only the best candidates attempting to apply part (ii) to the situation being asked.*

Q8

(i)
Liabilities are future spending (and any debt), and size of planned inheritance. [1]
What is the required standard of living. [½]
Need to consider nature - fixed vs real - and term of liabilities - eg planned retirement date, dependants [2]
What currency are they in? For example, what if family are educated overseas or individual plans to retire abroad. [1]
What tax position is he in? Differing tax regimes may apply during income and inheritance phases. [1]
How much liquidity is needed? [½]
Potential for changing circumstances/liabilities into the future. [½]
Investor's risk appetite. [½]
Information should be obtained by an appropriate method (eg interview client, study financial reports). [1]
[Marks available 8, maximum 4]

(ii)
The main concern is that their fund is exhausted earlier that expected this could be because of:
Longevity (of individual and dependents) - living longer than expected [1]
Taxation, risk of changes, or ability to exploit rules made to encourage individuals to save - i.e. higher than expected taxes [½]
Lower than expected return on assets or volatility leads to insufficient income in retirement/liquidity problems or inheritance too low. [1½]
Higher than expected increase of liabilities relative to assets. [½]
Expenses of investment [½]
Any other reasonable answer

[Marks available 4, maximum 2]

(iii)
Longevity - invest part of portfolio in protection product such as annuity (with spouse's pension). [1]
Monitor health, take advantage of products offering protection e.g. whole life policy to provide inheritance. [1½]
Taxation - take advice. Diversify between asset classes which may have different tax treatment. [1]
E.g. maximise allowances for both income and capital gains, or tax exempt products. [1]
Asset returns - diversify by asset class, currency, use an investment manager [1½]
Relative growth of of liabilities - Matching, including de-risk the strategy over time as investment time horizon shortens, regular monitoring and take action. [2]
Expenses - consider collective investment schemes compared with direct investment; choose passive funds over active if appropriate [1½]
As long as funds have low tracking errors [½]
Always look at net returns (active may be worth paying for in certain cases) [½]

[Marks available 10½, maximum 6]

[Total marks available 22½, maximum 12]

Candidates generally struggled with this question.

(i) *Stronger candidates applied the relevant part of the course but lots of candidates focused on emotional needs of the individual and some focused on modelling which didn't answer the question being asked.*

(ii) *This part was generally answered well, although some candidates just reworded the same risk to not score the different risks mentioned in the solution.*

(iii) *Most candidates attempted this part but only the stronger candidates focused on all the relevant points with most mentioning 1 or 2 and then moved on.*

Q9

(i)
Longevity risk, the longer the borrower lives the more interest accumulated and the more likely the amount repayable is capped at the property value [1½]
Morbidity risk, the higher the rate of morbidity the less time the fixed interest rate will be received for before property is sold on move into long-term care. [1]
Health including mental health, if the borrower is in poor health and unwilling or unable to move into long-term care the property may fall into disrepair. [1]

House prices/inflation, the lower house prices increase (it could be negative), more likely the amount repayable is capped at the property value. Poor marketability/delay in selling may exacerbate this risk. [1½]

House value could be less than expected due to poor maintenance. For example:

Cost of living increase, retirees usually have relatively fixed incomes, so if cost of living increases more rapidly than income the homeowner is less likely to maintain the property to the level expected by the bank. The risk is greater if borrower at outset is unable to cover their cost of living.

Lack of incentive to maintain property, there is a greater risk of the property falling into disrepair if the borrower is not incentivised to maintain the property. Reason for this would include the bank not monitoring the state of the property and taking early action, the property value being less than the mortgage, or the borrower not having relatives (or others) they wish to leave a legacy to. [2]

Risk of property damage, e.g. fire/flood. Moral hazard of homeowner not insuring. [1]

Interest rates, if interest rates fall the borrower is more likely to repay early if they can reborrow at a lower rate so the bank will receive the interest for less time than expected i.e. make less profits than expected. If there are significant penalties for early repayment when interest rates fall these may provide less protection than expected because there is a larger financial incentive to use an approach to avoid the charge, e.g. move into long-term care and move back out after repaying loan. [2]

If interest rates rise, the bank will miss out on earning more on the open market. Exacerbated if the bank is liable to finance at a variable rate. The overall risk to profits depends on what profits are made when market interest rates are lower than the fixed rate. [2½]

The fact that interest accrues may present liquidity issues. [½]

Mis-selling risks, there are risks that the loan is miss-sold, for example, the borrower may have been pressured into borrowing by family members to give them the proceeds. [1]
Reputational/regulatory/legal risks, the target market is vulnerable. Poor publicity/increased regulatory interest may arise, particularly if the bank is seen to be pressurising a house sale or maintaining high fixed interest rates when market rates have fallen. Such risks may also arise in respect of dependants living in the property. [2]

There is a risk of making a lower return on this product compared with alternatives. [½]
The level of competition is a risk. [½]
Operational risks e.g. poor admin. [½]
[Marks available 17½, maximum 6]

(ii)

<u>To reduce the risk that the accumulated borrowing will exceed the property value in future:</u>

Valuing the property on a long-term through-the-cycle basis rather than current market value. A long-term through-the-cycle basis would adjust property values to temporary features, for example value based on lower of current and average condition. [1½]

Maximum loan to value limits. [½]

House price derivatives e.g. protect from market crashes. [½]

Maximum borrowing allows for age (and sex if permitted in the country), with lower borrowing limits at younger ages [½]

Longevity contracts to payout if lifespans increase sufficiently. [½]

Diversify by property location [½]

<u>To reduce risk that property condition deteriorates:</u>

Underwriting of borrower, whilst no interest is paid on the loan the borrower needs to be able to afford their cost of living both now and into the future if they are to be able to afford to maintain the property [1]

Underwriting of borrower on what the proceeds will be used, this could identify if the borrower is being pressurised by someone (e.g. family parental abuse) to give their wealth away. [1]

Regularly survey property to check it is being maintained to expected standard and take action if not to protect the bank's collateral value. [1]

Require property insurance as condition of mortgage. [½]

Bank could provide a helpline for services for the elderly. The bank is interested in protecting the borrowing collateral value and this is aligned with helping the borrower with information. For example, if issues are identified on a survey visit, referring borrower to the assistance helpline to help them get the assistance they need could be more effective at taking early action to protect the bank's collateral value. [1½]

Allow the borrower to protect part of their property value for inheritance giving. The longer the borrower has a financial interest in their property the greater the incentive for the property to be maintained. It also gives additional assets the bank has recourse to if the borrower breaches loan agreement terms. [1½]

Max 3 marks for managing deterioration

Other:

Require approved advisors e.g. lawyer to give advice and explain contract to borrower. This reduces the risk of miss-selling/reputational and transfers the risk. Ensure mortgage Ts and Cs are clear. [2]

Process of identifying deaths to reduce delays in selling property and is especially important if loan value is greater than property sale price. [1]

Bank has to approve sale price and process to reduce the risk that the property is sold for less than loan or that there are undue delays in selling the property. [1½]

Obtain required finance on a matched basis i.e. fixed and accruing interest rate, to protect from interest rate rises and avoid liquidity problems. [1½]

Or use alternative to a completely fixed rate to protect against interest rate rises e.g. fix only for a temporary initial period, offer a rate linked to market rate movements i.e. stabilised rate that smooths, but not removes, market rate changes. [1]

Research competition and consider return on alternative products, to check this product maximises return on capital. [1]

[Marks available 18½, maximum 8]

[Total marks available 36, maximum 14]

(i)	*This was generally answered well but only the strongest candidates produced a range of points to score really well*
(ii)	*This part was not answered well with most candidates giving generic risk management responses rather than focusing on the scenario being asked.*

Q10

(i)
Motor third party liability insurance indemnifies the owner of a motor vehicle against compensation payable to third parties for death, personal injury or damage to their property. [2]

In most countries such cover is compulsory, with or without an upper limit on the amount of compensation. The cover provided may or may not be limited to that required by legislation. [1]

[Marks available 3, maximum 3]

(ii)
All citizens involved in a motor incident as a third party would be covered if the government provided third party liability insurance. [½]
Without this cover the compensation would depend on whether the motorist at fault had their own personal third party cover or the financial resources to cover the third party claim. If this was not the case then citizens involved as third parties would not be compensated which would be considered unfair. The financial claims can be very high, and likely beyond the financial resources of the motorist. The market premiums may be unaffordable to sections of the population - including drivers with poor claims history who have greater likelihood of then causing more third party liability in the future. [3]

The country may be one whose citizens have a natural antipathy to purchase this insurance. [½]

There may be political motives for the move, or strategic reasons (eg budget surplus, encourage driving). [1]

Allow insurance at cheaper rates, through economies of scale/removal of profit margins. [1]

Government may wish to avoid the need for legislation to make this insurance compulsory for all drivers. Concerned about the risk that some drivers may drive without insurance and in this case the third party would not be compensated. The government may need to provide a fund to cover this. [1]

[Marks available 7, maximum 3]

(iii)
Advice can be given on the likely cost of providing the third party cover. The cover is provided by the government so no need for any contributions to profit but will need to allow for the costs of future claims and expenses. Some of these claims could take a long time to be settled. [2½]
Can advise on the assumptions to be used. Historic data will be available relating to the probability of events and potential costs but these may need to be adjusted for the new cover

[1½]

Advice could be given on suitable models to use and how to use the output. [1]

Actuaries can also advise on how this insurance could be paid for and the pace of funding. This could be through general taxation as it is a potential benefit for all citizens. Could be through tax on fuel, vehicle tax, tax on insurance companies, or whether to fund via debt. Can advise on costs and assumptions to be used to make comparisons and factors to consider in final decision. [3½]

They can also advise on risks involved and how these may change over time e.g. relating to new types of vehicles. Or changes in legislation affecting values of potential claims. [1½]

Can also advise on potential changes in other factors which could affect values of claims e.g., interest rates, longevity, Ts and Cs including excesses. [1½]

Recommendations on ways the government could manage and mitigate the risks involved in proving this cover. [1]

[Marks available 12.5, maximum 6]

(iv)

<u>Insurance companies' shareholders</u>

Insurance companies will be providing this cover as part of their motor insurance. Third party cover will no longer be needed and so this will affect policies to be offered in future which will involve extra work and is also likely to affect future profits. Will be fewer expected claims so this will impact the reserves that will need to be held. Expenses relating to claims should be reduced. There may be additional taxation on insurance companies to pay for the new cover and this may affect business. [2]

<u>Insurance companies' employees</u>

There may be additional work initially due to different policies being written. There may be fewer policies being taken out which may lead to redundancies. [1]

<u>Reinsurance companies' shareholders and employees</u>

They are likely to be similarly affected. Or they may take on some of the risk from the government. [1½]

<u>Motorists</u>

They will no longer need to purchase third party motor insurance cover so their insurance premiums should be reduced. However, they may need to pay increased amounts elsewhere depending on where the government will be raising the money for the cover e.g. on fuel, vehicle licencing or general taxation. [1½]

<u>Taxpayers</u>

Taxpayers may be expected to pay for this universal cover. [½]

<u>Car companies/distributors (potentially)</u>

Motoring costs being lowered stimulates sales. [½]

<u>Companies selling fuel (potentially)</u>

If the government decide to fund the cover through a tax on fuel this increase in cost may affect sales. [½]

<u>Members of the public</u>

All are potentially affected by being involved as a third party so having all motorists covered will be beneficial. [1]

<u>Lawyers</u>

There may be less work relating to insurance company claims. [½]

<u>Regulator (of the government).</u>

Will monitor any advance funding of the costs, ensure fairness of operation of scheme. [1]

Other suitable stakeholders
Marks can also be awarded for other suitable stakeholders with good explanation.

[Marks available 10, maximum 5]

[Total marks available 32½, maximum 17]

(i) *This part was answered well.*

(ii) *This part was also answered well by most candidates.*

(iii) *This part was generally answered well but the stronger candidates made a good cross section of points with some candidates going into far too much detail.*

(iv) *This part was answered less well with some candidates again going into far too much detail rather than looking at all the stakeholders.*

END OF MARKING SCHEDULE