Institute and Faculty of Actuaries

EXAMINERS' REPORT

SP9 - Enterprise and Risk Management Specialist Principles

April 2023

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.

For some candidates, this may be their first attempt at answering an examination using open books and online. The Examiners expect all candidates to have a good level of knowledge and understanding of the topics and therefore candidates should not be overly dependent on open book materials. In our experience, candidates that spend too long researching answers in their materials will not be successful either because of time management issues or because they do not properly answer the questions.

Many candidates rely on past exam papers and examiner reports. Great caution must be exercised in doing so because each exam question is unique. As with all professional examinations, it is insufficient to repeat points of principle, formula or other text book works. The examinations are designed to test "higher order" thinking including candidates' ability to apply their knowledge to the facts presented in detail, synthesise and analyse their findings, and present conclusions or advice. Successful candidates concentrate on answering the questions asked rather than repeating their knowledge without application.

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.

Sarah Hutchinson
Chair of the Board of Examiners
July 2023

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

The aim of the Enterprise Risk Management (ERM) subject is to instil in successful candidates the key principles underlying the implementation and application of ERM within an organisation, including governance and process, as well as quantitative methods of risk measurement and modelling. The candidate should gain the ability to apply the knowledge and understanding of ERM practices to any type of organisation.

The SP9 examination generally requires bullet-point or short form essay style answers, together with concise mathematical applications. The answers given below are just one possible set of acceptable answers.

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

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

Well-prepared candidates, who were able to apply their knowledge of the core reading to the specific scenarios given in the questions, were successful in this diet. Candidates who were able to draw upon on a wide range of risk types, and who were able to demonstrate how ERM can be applied in the day-to-day governance of companies scored well.

Many candidates did not appear to plan their answers, and therefore were unable to benefit from question parts that built upon and developed ideas linked to each other.

Questions that required understanding of risk interactions and of tail risk were not answered well by unsuccessful candidates.

C. Pass Mark

The Pass Mark for this exam was 56.
150 presented themselves and 81 passed.

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Solutions for Subject SP9 - April 2023

Q1

(i) (a) and (b)

Insurance risk/underwriting risk [½]
Underwriting risk refers to the risk that premium will be insufficient to cover the future losses and associated expenses due to the actual experience being different from that anticipated when the insurance products were designed and priced [½]
The Company has positive appetite for insurance/underwriting risk [½]
as this is a risk it is well equipped to carry, it has the experience, expertise, mitigation, monitoring and other tools to accept and manage [½]

Reserving risk [½]
the risk that future claims, premiums and/or associated expense cashflows will differ materially from those anticipated in setting the technical provisions [½]
The Company has a balanced appetite towards reserving risk [½]
Using optimistic assumptions when reserving, may lead to under-reserving and potentially adverse financial and regulatory impact when experience materialises [½]
Using overly conservative assumptions may lead to inefficient use of capital (thus causing shareholders' dissatisfaction and possible withdrawal of support) and/or tax authorities' considerations [½]

Market risk [½]
Currency risk/FX risk [½]
Market risk refers to the risk of loss or adverse change in financial condition resulting directly or indirectly due to fluctuations in the level and volatility of market prices of assets, liabilities and financial instruments [½]
Balanced appetite for market risk [½]
as seeking some market risk can give rise to profits [½]
hedging market risks can be expensive [½]

Liquidity risk [½]
the risk that the Company is unable to realise investments and other assets in order to settle its financial obligations when they fall due [½]
Negative appetite for liquidity risk [½]
Any liquidity considerations will cause regulatory and reputational adverse impact [½]
e.g. unable to pay claims or meet obligations [½]

Credit (or counterparty) risk [½]
The risk of loss or adverse change in financial condition resulting from fluctuations in the credit standing of issuers of securities, counterparties and any other debtors to which the insurers are exposed [½]
Credit exposures arise from exposure to banks via cash deposits, credit assets held [½]
Reinsurance counterparties (reinsurance recoveries) [½]
Balanced appetite [½]
This is not a risk that the company might proactively seek but should be taken to either mitigate other risks or must be tolerated in order for the Company to operate [½]

Operational risk [½]
The risk of direct or indirect losses arising from inadequate or failed internal

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processes, people and systems or external events [½]
Negative appetite for operational risk [½]
Operational risks arise as a consequence of business operations and can have a catastrophic impact on reputation and business viability [½]

Regulatory/compliance risk [½]
Risk of not meeting required regulatory/compliance standards [½]
Negative appetite for regulatory risk [½]
Breaching regulatory requirements could lead to loss of license to carry out business [½]
[Marks available 17, maximum 9]

(ii)
Retain/accept [½]
May choose to retain if the Company is well-placed to accept, manage and report it
Examples include acceptance of Fire risks [½]

Remove/reject/avoid [½]
The Company is unable to manage this risk, hence may choose to eliminate it
Examples include cease accepting risks from specific lines of business, liquidate specific investments [½]

Reduce/manage [½]
Take actions to reduce impact or likelihood. Examples include limits on investments, max Sum Insured Amounts, excesses [½]

Transfer [½]
Transfer the risk to other providers via reinsurance arrangements, outsourcing etc. understanding that the third party will expect to be compensated for the risk they take on [½]
[Marks available 4, maximum 4]

(iii)
Insurance/underwriting risk:
Reinsurance [½]
Facultative reinsurance especially for large commercial risks [½]
Portfolio and exposure monitoring to ensure exposures are within appetite [½]
Appropriate policy wordings [½]
without ambiguities, mirroring where necessary the reinsurance treaties [½]
Segregation of duties, four-eye principle . [½]
Appropriate underwriting limits based on experience and expertise [½]
Policy excesses [½]
Exclusion clauses [½]

Reserving risk:
Reserves set and peer-reviewed by persons of appropriate experience and expertise [½]
External review to ensure adequacy of processes and procedures [½]

Market risk/FX/currency risk:
Invest in Euro-denominated instruments [½]
Currency swaps/forwards/futures [½]

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Matching of assets	[½]
Appropriate limits and restrictions set in the investment guidelines and monitored	[½]

Liquidity risk:

Project expected cashflows and regularly monitor	[½]
Arrangement of overdraft and other credit facilities	[½]
Matching of assets and liabilities by:	[½]
Duration/term	[½]
Nature	[½]
Currency	[½]

Credit risk:

Managing/reducing premium debt where possible	[½]
Use a number of counterparties (i.e. diversification)	[½]
Credit derivatives	[½]
Reputable, high credit quality reinsurers and other counterparties	[½]
Exposure limits	[½]

Operational risk:

Risk policies and procedures in place	[½]
KRIs, monitoring against these	[½]
Business Continuity/Contingency plans and disaster scenario planning	[½]
Regular internal audit and external consultants' review of processes, systems and procedures	[½]
Performance management/staff training	[½]
Legal advice/robust contractual agreements	[½]

Regulatory risk:

Use appropriate expertise	[½]
Monitoring compliance	[½]

[Marks available 17, maximum 9]

(iv)

Emerging risks are characterised by their uncertainty	[½]
The key purpose is to identify the likelihood	[½]
and impact of potential emerging risks	[½]
in order to be ready to respond/react to the risk	[½]
and ensure that appropriate mitigation is in place, if required	[½]
The Company also uses the analysis to identify any business opportunities	[½]
e.g. first mover advantage	[½]

Examples:

Regulatory and legislative changes	[½]
Pandemic	[½]
Cyber risk	[½]
Climate change	[½]
Change in the EU and International monetary policies	[½]
Technological changes (e.g. AI)	[½]
Geopolitical or Inter-country tensions and instability/war	[½]

[Marks available 7, maximum 3]

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(v)
Overall financial condition of ABC likely negatively impacted [½]
Both profits reduced [½]
and solvency coverage reduced [½]
There may be offsetting factors affecting both profits and solvency [½]

Insurance risk/business - the widespread lockdowns lead to reduced economic activity:
Requests for additional discounts for upcoming renewals due to lower economic activity and significant impact on certain industries [½]
Spending power of existing and potential policyholders is reduced [½]
This may have led to reconsideration of insurance spending to less comprehensive insurances [½]
or the least insurance level required by regulation [½]
Reduced motor claims due to the movement restrictions [½]
Budget cuts, not well-maintained facilities and rushed start-up actions as business seek to return to normality [½]
May lead to heightened accident/fire risks [½]
Initial reduction in health claims, as non-essential operations were deferred [½]
Routine screenings and planned treatments have been postponed [½]
exacerbating health problems, and increasing health claims [½]
Employer and public liability claims (if employer/third party is found liable for not attending to all government guidelines and transmitting the virus) [½]
Restrictive measures impacted physical/mental health, increasing health claims [½]
More restrictive reinsurance terms on renewal: [½]
Additional exclusions relating to pandemic risks [½]
Higher rates due to additional losses they may have experienced [½]

Investment/Liquidity/Credit risks and considerations:
ABC's investments are in cash, cash equivalent and bonds, hence impact on investments may be limited [½]
The Company has no exposure to equities which experienced high volatility [½]
May be no reason for increased liquidity considerations [½]
as lower premium income and increased claims in certain classes, offset by lower claims [½]
However lower premium income and increased claims could lead to adverse liquidity impacts [½]
If counterparties are reputable and of high credit rating, impact on credit risk low (but should be monitored) [½]
Premium debt impact as policyholders may face financial difficulties and are unable to pay for insurance [½]
Some Companies provided extension of their grace periods to support their customers [½]

Operational risk/considerations:
Significant number of staff had to work remotely [½]

Hence the following steps had to be taken in short-period of time:
enable remote log-ins [½]

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Purchase of laptops [½]
Enhance information security [½]
New 'working from home' policies and procedures required [½]
Can all work be performed remotely? [½]
Certain processes and procedures e.g. reinsurance purchase become more cumbersome due to absences [½]
Lower number of staff due to persons impacted by Covid-19 [½]
Initiation of business continuity plans and confirmation (or otherwise) of appropriateness [½]

Other considerations:
Increased expenses, e.g. relocating staff, communication with policyholders [½]
Increased uncertainty in assumptions used in reserving and capital calculations [½]
Increased compliance risk, i.e. due to rapid changes in regulation [½]
Increased strategic risk, e.g. in responding appropriately to ever-changing government actions, and access to government support [½]
Increased legal risk, e.g. in interpreting policy wording in relation to covid-related claims [½]
Impact on reputational risk will have depended on how pro-active ABC was in communicating with customers, and treatment of staff [½]

[Marks available 21, maximum 12]

(vi)
Benefits:
More accurately captures the risk profile of the Company [½]
Enables the Company to take credit for the risk mitigation strategies that have been implemented [½]
Improves Enterprise Risk Management [½]
Can be a significant tool to inform decision making [½]
by considering the impact of actions in a holistic manner across the Company [½]
Possible reduction in capital [½]
More dynamic [½]
Can use for other purposes too, economic capital modelling [½]

Challenges:
Significant effort and cost in building the model [½]
May outweigh any capital reduction [½]
Significant effort and cost in maintaining the model [½]
Obtaining supervisory approval is necessary [½]
Expertise required [½]
May not be readily available in a small company [½]

[Marks available 7, maximum 3]

(vii)
Model risk arises from the use of an inappropriate or inaccurate model when assessing of managing risks [½]
Parameter risk arises from the use of inappropriate or inaccurate parameters or assumptions within such models [½]
As such, incorrect or suboptimal decisions can be made [½]
Pandemics are considered a low frequency [½]

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high severity event [½]
which means there is limited historical data to model pandemic events [½]
There is considerable uncertainty about the frequency and severity of future events [½]
as governments build on historical inadequacies and take better measures [½]
e.g. more adequately trained emergency services staff, better resourced medical facilities, more appropriate restrictive measures to restrict transmission) [½]
Then we also need to consider the changes in the Company's underwriting terms and conditions and/or underwriting practices [½]

[Marks available 5, maximum 3]

(viii)
The expected net loss calculated purely from historical data is €190k [½]
which is broadly consistent with the model output [½]
There have been 2 pandemics in the last 20 years [½]
with an average net loss of (€3m+€0.8)/2 = €1.9m [½]
compared to the 1-in-20 loss from the model output of €2m [½]
and 1-in-10 loss from the model of €0.5m [½]
The 1-in-20 loss as per the model of €2m is much lower than the €3m loss experience in 2002 [½]
The €3m loss in 2002 corresponds to a probability between 1% and 5% [½]
We may not be comparing like-with-like (model vs empirical pandemic events) [½]
The nature of the pandemic (all pandemics are different) [½]
Rates of transmission [½]
Demographics (e.g. geographic, socioeconomic) [½]
Changes in external factors like medical interventions, population behaviour / response, government response etc. [½]
Changes in the reinsurance structure [½]
Changes in underwriting practices [½]
Changes in terms and conditions of underwriting policies [½]
Consider / compare output from other models to inform analysis of results [½]
Overall, the historical data is not adequate to discard model outcome. [½]

[Marks available 9, maximum 4]

(ix)
(a)
The insurer may need to consider how interactions between its risks change 'in the tail' [½]
By 'in the tail', we mean when extreme manifestations of risks are being observed simultaneously [½]
Whether any interaction between risks is likely to be particularly more onerous under stressed conditions [½]
Whether the risk distributions for individual risks are appropriate [½]
The shape of the joint risk distribution may no longer be appropriate [½]
and it may need to update its correlation assumptions to take into account tail effects [½]
and consider whether upper/lower tail dependence remains appropriate [½]

[Marks available 3½, maximum 2]

(b)
Extreme investment losses simultaneously in different investment markets

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(e.g. equity losses, bond defaults, property etc.) [1]
Increase in reinsurer defaults exacerbated by investment losses/market turmoil and increase in claim rates [1]
Extreme investment losses due to market turmoil / recession, coupled with mass lapse of policies/premium defaults [1]
Increased morbidity rates leading to extreme underwriting losses for Health Insurance business together with extreme investment losses [1]
Any other sensible example [1]
[Marks available 5, maximum 2]

(x)
Sensitivity analysis involves varying each input parameters one at a time [½]
to understand the importance of each assumption to the model output [½]
and the sensitivity of model outcome to the assumption. [½]
It can be used to assess suitability of a response strategy [½]
by assessing impact in the absence of any response and then, in the presence of the proposed response [½]
Scenarios testing involves varying a number of input parameters simultaneously [½]
looking at the results of the model under various scenarios representing plausible sets of future conditions [½]
Sensitivity testing ignores interactions between assumptions [½]
and it is difficult to assess the aggregate impact of changing assumptions one at a time [½]
There are both top-down and bottom-up approaches to scenario testing [½]
Scenario testing can be useful for bringing people together from across the company to construct a plausible scenario [½]
Scenario testing is more complex than sensitivity testing and requires more expert judgement [½]
The choice of scenario can be subjective. [½]
Stress testing only looks at extreme events so needs to be combined with other techniques to understand the full range of outcomes [½]
Stress testing is an approach favoured by regulators, e.g. the Solvency II standard model for calculating the SCR [½]
A sensible example of sensitivity or scenario analysis [1]
[Marks available 8½, maximum 6]

(xi)
The assumptions appropriately capture the impact of an economic recession [½]
considering the different drivers that may be highly correlated at such stressed times [½]
Only fire premium is stressed, and this may be because some/all of the other classes of business are mandatory by law [½]

ABC should also consider stressing:
Motor premium income (fewer vehicles, less travel due to reduced spending power) [½]
Liability premium income (fewer businesses in operation) [½]
Health premium income (premiums less affordable, more defaults) [½]
The fire premium is stressed as at times of recession the spending power of the policyholders tend to reduce [½]
moving to more basic covers [½]

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and/or terminating their non-compulsory policies [½]
or requesting discounted rates [½]
Stressed times may lead to unethical behaviours (e.g. fraudulent claims) [½]
or greater propensity to claim (e.g. for smaller amounts that previously would not) [½]
An economic recession is evidenced by the reduction in the value of invested assets, hence the assumption is appropriate [½]
Reduction in asset values also reflects increased credit risk [½]
Reinsurance counterparties may face similar economic conditions to insurer [½]
and possibly having had their credit ratings downward revised [½]
It is noted that neither operational [½]
nor liquidity risk are considered [½]
both of which may increase at stressed times [½]

[Marks available 9½, maximum 4]

(xii)
Fire policies terminated/not renewed will negatively impact profit [½]
if Fire is a profitable class of business [½]
The lower number of new policies may immaterially lead to a reduction in the capital requirement (due to reduced exposure) [½]
Increased claims lead to reduced profitability [½]
€8m fall in profits on a €50m premium income is significant [½]
Increase in capital requirements is less significant [½]
The reduction in value of invested assets is directly reflected in profit and loss [½]
so unless there is a change in the duration and other characteristics of assets (e.g. credit rating) [½]
capital requirement impact is limited [½]

Reduction in reinsurance counterparty credit rating by 2 notches would not be reflected in P&L [½]
but would in the capital requirement [½]
The limited increase in capital requirement indicates that the reinsurance counterparty remains of adequate quality [½]

[Marks available 6, maximum 4]

(xiii)
Legal risk:
The risk the Company will be unable to enforce the contract or the contract is not fit for purpose [½]

To protect against this risk, the Company must:
Consider the reputability and standing of the vendor in the market prior to the signing of the contract [½]
Use standard-market terms for contracts where possible; and [½]
ensure that contract has been properly reviewed by specialised legal advisors [½]
Credit risk: failure (bankruptcy) of outsourcer [½]
Reduce impact by carrying out due diligence re financial health of outsourcer [½]
and continuing to monitor this financial health [½]

Compliance risk:
The risk that the vendor is not compliant with regulatory requirements [½]

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resulting in financial, operational, reputational etc. impact to the Company [½]
The Company may choose a vendor regulated in a strong regulatory environment [½]
of at least similar requirements to the ones imposed to the Company by the local regulator [½]
The Company should review the vendors policies and procedures to ensure they are adequate [½]
and its due diligence should also consider review of any incidences of non-compliance. [½]

Data fraud or mis-management:
The risk that sensitive/confidential information in soft or hard form is disclosed to unauthorised parties [½]
resulting in financial, operational, reputational etc. impact to the Company [½]
This could be intentionally, due to erroneous actions or inadequate information security measures [½]
The Company should use reputable, highly experienced vendors [½]
and review their information security measures to ensure they are adequate [½]

The security measures should consider all the areas of security applicable to the outsourcing of data:
Physical access to data [½]
Encryption of data [½]
Back-up of data [½]
Data segregation [½]
The Company should sign all required confidentiality/GDPR provisions [½]
and arrange for highly secure data transfers [½]

Business Continuity:
The risk that the vendor fails to deliver due to inadequate business continuity plans [½]
The Company must ensure that the vendor has adequate business continuity and disaster recovery plans [½]
The Company should monitor performance and service adequacy [½]
The Company must ensure that minimum service level terms are set out in the agreement [½]
and must devise appropriate monitoring mechanisms and tools [½]
Appropriate escalation governance processes should be in place to ensure that any inadequacies are re-mediated [½]

[Marks available 15, maximum 6]

[Total 73]

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Candidates who planned their answers to parts (i) (ii) and (iii) together tended to score well and were able to produce a coherent response covering risk identification, risk appetite, and risk mitigation. Many candidates found difficult to justify appropriate risk appetites for different risks.

Part (iv) was well answered by many candidates.

In part (v) successful candidates were careful to make sure they included a range of points to describe the impact on both the financial condition and the risk profile of ABC. Some candidates omitted discussion of the financial condition altogether.

Parts (vi) was well answered by many candidates.

All but the highest scoring candidates found difficult parts (vii), (viii) and (ix). Part (vii) was not well answered, and candidates appeared to lack a precise understanding of model and parameter risk. Many candidates did not make use of the model output and historic data appropriately for part (viii). In part (ix), very few candidates were able to articulate tail dependence in a concise manner, and most found difficult to give relevant examples of tail risk interactions.

Parts (x), (xi) and (xii) were reasonably well answered by most successful candidates. Some candidates found difficult to articulate concisely the difference between stress tests and scenario tests, or did not cover both aspects in their response.

Part (xiii) was well answered by many candidates.

Q2

(i)

Corporate Governance refers to the way the Board provides oversight of the bank [½]

and the processes it puts in place to ensure that the Company is run in the best interests of its shareholders and other stakeholders [½]

To achieve this, the Board:

Sets out appropriate risk appetite [½]

Recruits the skills needed to successfully implement ERM [½]

Establishes organisational structures; and [½]

Ensures segregation of roles and responsibilities. [½]

Specific examples of good corporate governance may include:

Separate individuals taking on the roles of chair and CEO [½]

Majority of NEDs should be independent [½]

Certain board subcommittees, e.g. audit, remuneration, nomination, composed entirely of NEDs [½]

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The full Board should meet regularly, e.g. monthly [½]
Board members should be 'fit and proper', with sufficient qualifications, knowledge and expertise to be able to challenge decisions [½]
and diversity [½]
All Board members (including the CEO) should engage annually with formal performance management [½]

[Marks available 6½, maximum 2]

(ii)
Examples of internal controls include:
Monitoring of actual performance vs. plan/budgets [½]
Establishing data/information security protocols [½]
Establishment of processes and procedures [½]
Safeguarding of I.T. assets [½]
Regular password changes [½]
I.T. security policies for employees [½]
Regular access reviews [½]
Developing business continuity plans [½]
Monitoring performance indicators [½]
Ensuring four-eye principle is applied/peer review [½]
Ensuring appropriate authority limits are in place [½]
Segregation of duties [½]
to avoid dominance risk/conflicts of interest [½]
Thorough screening/recruitment checks for employees [½]
Regular staff training [½]
anti-fraud/money laundering. [½]
Whistle blowing policies [½]
Clear organisational structure with established reporting lines [½]
Up to two other suitable examples [1]

[Marks available 10, maximum 4]

(iii)
Three lines of defence model:
First line [½]
Business units where the risk taking activities are initiated [½]
Primary risk management, with appropriate control mechanisms in place [½]
Second line [½]
Risk Management and other Control Functions [½]
that provide challenge and oversight over the activities of the first line [½]
Reports directly to Boar to maintain independence [½]
Third line [½]
Internal Audit (or the Board with support from Internal Audit function) [½]
responsible for the independent review and provision of assurance [½]
that the Company's internal control systems are effective and properly implemented [½]
Reports directly to the Board Audit Committee to maintain independence. [½]

Benefits:
Simple to understand and communicate [½]
Can be considered best practice [½]
Avoids confusion, gaps and overlaps when assigning risk management

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responsibilities [½]
Supports sufficient control and challenge at all levels of the organisation [½]

Cons:
Control functions may lack skills and expertise to challenge effectively the risk taking activities [½]
Potential of risk management being too restrictive or not adequately so [½]
Misalignment of interests in the first line [½]
Taking risks to maximise revenue vs. minimising losses and managing risk [½]
Second line may not be fully independent [½]
e.g. reliance on skills/expertise of first line [½]
Third line may be too far removed to provide appropriate assurance [½]
There are different sub-models for how the first two lines of defence interact [½]
Offence vs. defence [½]
Policy and policing [½]
and the partnership model [½]
(Award up to 1 mark for a sensible justified conclusion on which sub model works well for the bank (½ mark for recommended sub-model and ½ mark for justification) [1]
[Marks available 14½, maximum 6]

(iv)
Risk appetite is defined as the degree of risk an organisation is willing to accept to achieve its objectives [½]

It considers:
The level of risk [½]
The types of risk that are desired to meet these objectives [½]
The risk tolerance [½]
i.e how much risk the Bank is prepared to retain or how much variability is willing to withstand [½]
It is usually expressed as a set of short and clear statements relating to the one or more measures of risk [½]
May include a probabilistic statement [½]
linked to a time horizon [½]
The Board sets the risk appetite [½]
with engagement and input from the risk function and senior risk managers [½]

Risk appetite statements could be based on:
Retain certain solvency levels/solvency coverage [½]
Credit rating [½]
Financial condition [½]
Earnings volatility [½]
Ability to pay dividends [½]
Economic value [½]
The Risk Function discusses the risk appetite with the Board (or the Board Risk Committee) [½]
and translates these statements into a more detailed set of risk tolerances and limits [½]

Examples include:

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Common equity tier 1 ratio	[½]
Investment limits per asset class	[½]
Risk adjusted return on assets	[½]
Number of complaints	[½]
Number of operational incidents	[½]
(Award 1 mark for up to two other examples of tolerance limits)	[1]

Limits are clearly communicated throughout the business	[½]
to ensure risk appetite is embedded within daily operations	[½]
Clear controls and monitoring mechanisms are in place to ensure compliance	[½]
Breaches are escalated at the earliest opportunity	[½]
with an action plan to remediate	[½]

[Marks available 15, maximum 5]

(v)

General items to be included in the report:

Risk appetite statement	[½]
Business objectives	[½]
Explanation/description of the 5 key risk metrics	[½]
and how they link to risk appetite/business objectives	[½]
Description of any crystallised losses or incidents	[½]
Emerging risk analysis	[½]
Details of the review process undertaken in producing the report	[½]
Any decisions required from the Board	[½]

Common equity tier 1:

Indicator of capital adequacy	[½]
by comparing Company's capital against assets	[½]
BASEL III Tier 1 requires a minimum ratio of 4.5%	[½]
so regulatory minimum is in place for the Company	[½]
The Board appetite is more than this minimum regulatory requirement	[½]
so indicates that the Company is well capitalised	[½]
and risk metric shows this is stable over both quarters ("Green")	[½]
Could also be an indicator that the capital is not effectively utilised	[½]
e.g. due to risk-averse nature of executives	[½]
e.g. due to lack of opportunities	[½]

Risk adjusted return on capital:

Strategic risk metric	[½]
which is an indicator of the profitability of the Bank	[½]
10% indicates the minimum profitability the Board accepts	[½]
The profitability is stable from quarter to quarter	[½]
with a small increase noted since the previous quarter	[½]
Metric is in the amber zone, lower than the expectations of the Board	[½]
Need to understand and explain the drivers of the lower than expected profitability	[½]

Invested assets allocation limits:

This is to monitor market/credit/investment risk	[½]
Limits are in place to manage exposure to different classes	[½]
Risk dashboard indicates breach, but with exception approved by the Board	[½]

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The Board may have reviewed breach and decided to retain for additional period [½]
e.g. because it does not want to rectify/disinvest/sell assets at unfavourable terms [½]
It may be that the limit should be reviewed to ensure it remains appropriate [½]

Number of IT outages:
Operational risk indicator [½]
IT infrastructure is extremely important to daily operations [½]
Disruptions impact internal and external stakeholders [½]
and could lead to errors, dissatisfied customers, loss of data, duplication of work, regulatory fines etc. [½]
One outage is within appetite [½]
but Board would need to ensure that the outage was not for a critical system [½]
or occurring for the same system in both quarters [½]
Cause of outage should be investigated and reported [½]
duration of outage recorded [½]
and implications for business operations [½]
Business continuity/back-ups/recovery plan should be in place to accommodate for frequent outages [½]

Number of Complaints:
Operational risk indicator [½]
Indicates level of customer satisfaction [½]
Previous quarter was green but this quarter is amber [½]
Reason behind complaints should be investigated [½]
to ensure that it is a one-off or coincidental and not a new trend [½]
and action taken to remediate the root cause where appropriate [½]
[Marks available 24, maximum 10]

Parts (i), (ii), (iii) and (iv) were well-answered by many candidates, and successful candidates were able to show good knowledge of the core reading in their responses.

Part (v) was answered well by successful candidates. However, some candidates focussed only on discussing the given risk metrics, and failed to include a concise summary of relevant overarching points that would be covered in the Risk Function's report.

[Paper Total 100]

END OF EXAMINERS' REPORT

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