SOLUTIONS

24 October 2016 (am)

Subject F206 – Banking
Fellowship Applications

Introduction

The Examiners' Report is written by the Principal Examiner with the aim of helping candidates using past papers as a revision aid.

The Examiners examine the F206 syllabus and have access to the reading material and references contained in the reading material. The report contains more points than the Examiners will expect from a solution that scores full marks. The list of points is not exhaustive and marks were awarded for alternative solutions as well.

The report is written based on legislative and regulatory context at the date the examination was set. These circumstances may change.

QUESTION 1

You are the CEO of a Large South African Bank. You are considering further expansion into the African Region and are considering the neighbouring countries Namibia, Botswana, Zimbabwe and Mozambique.

i. Outline the considerations to take into account when choosing which country to expand into?

[9]

This question was the best answered of all questions in the paper. Some candidates failed to understand the question and lost time explaining non-relevant points. For example, some candidates were of the opinion that expansion would only be possible if a bank had a niche or unique product offering which is not the case.

There are several considerations that would need to be taken into account:

- The bank's strategy and risk appetite framework needs to be considered (in terms of why the bank is considering to expand into other territories, and specifically why the neighbouring countries):
  - If this is for diversification out of SA it is important to understand exactly why. For instance if it is to move into a currency / economy that will react differently to that of SA during economic stresses, then ideally one would look to select the country with the least correlation to SA (in these specific metric

  - If it is to grow the bank and brand (as perhaps the SA market is saturated), then the consideration may turn to how big those banking markets are, how competitive they are, how easily you can get into the markets etc as the goal is more centered around growth specifically and less focused on diversifying some of the country specific risk out of your operation

  - The relative levels of profitability of the banks within the countries or regions need to be considered (e.g. ROE, ROA, as deemed relevant to the bank's strategy).

  - Consideration also needs to be given to conduct / ethics of entering certain markets.

- Local legislation / regulations /tax within the regions in question:
  - The bank needs to gain an understanding with respect to general compliance / regulatory requirements (e.g. NCA) to ensure it abides by these regulations in each territory. It is also important to understand if any are prohibitive regulations in place that will make trading challenging

  - Will the Regulators allow international banks to join the market, and what restrictions will they have in place for non-local banks (including ensuring this will not result in anti-competitive outcomes)? This may be a function of the political situation within the country and how protective of the country is of its local banks and market.

- Will the SARB allow the acquisition or venture in new territories (as this put some additional capital strain on the bank based in SA overall)?

- Do countries have policies to attract foreign direct investment in banks?

- Are laws in place to enforce banking contracts?

- Is infrastructure in place such as individual registration lists (e.g. identification documents or deeds office) exists to support the different banking products? Does the country have access to bureau data for the management and tracking of credit risk?

- Political situation in the territories
  - Ideally the bank would want to expand into countries with a stable political situation, as well as an outlook that is stable (democratic, etc). This is also important to rating agencies in the rating assessment of banks.

  - This is both with respect to the government in charge and their ability to run the country effectively, as well as the stability of the populous itself.

  - The bank would also need to consider the reputational impacts (on its overall brand) of expanding into a specific country (for instance expanding into a region with human rights abuses could be seen as the bank aligning itself or agreeing with these practices). This could have negative impact on the bank's existing business model.

- Economy of the countries in question
  - Both the current economic situation as well as the outlook over the medium to long term should be analyzed

  - This includes understanding what the economic strengths of the country are, and how much they rely on specific industries (especially if the country is highly dependent on just a few industries as this increases the risk of future economic challenges – concentration risk)

- Level of competition within those territories
  - Ideally the bank must understand the number of competitors within the local markets (their relative sizes, expertise [so local or big multinationals]) to understand who and what they would be competing against should they enter those markets

  - This also must talk to the strategy of the bank. Is the bank looking to diversify into a new market across the board or are they looking to play in specific niche areas or products where they feel they would have some competitive advantage?

- The size of the local market:
  - Need to understand the numbers of customers, total value of the market, how much of an unbanked market there is in order to understand the potential of the market

    - Also need to consider the potential to make inroads into the local market, especially if it is already saturated with respect to the number of local banks in place (unless the bank plans to buy one of them)

- The ability of the bank to enter market
    - Will the bank be able to purchase a local bank (cost / available equity wise, can the bank raise additional funding for this if required)?
    - If so, are there any worth looking into in any of the territories (right size, product mix, level of exposure)
    - If not, will the bank have the ability to enter the market by starting from scratch
- What was the experience of other banks trying to enter the market
- Language can impact the investment decision. Mozambique, for example, is predominantly Portuguese. This may lead to additional costs.
- Availability of staff especially in territories with strict work permit requirements.

- Funding requirements:
    - The bank needs to consider how it would fund such a venture
        - Is there free capital available, and how much (as this will determine exactly what limitations there are in terms of the opportunities the bank can explore)
        - And if not, does the bank wish to raise funding in the market and the optimal legal structure to do so
        - The bank should consider how it will fund its balance sheet and how deep the local money market (liquidity) is.

- Capital requirements
    - The bank needs to determine under which capital regime the different territories and banks currently operate (e.g. Basel II) as this will assist in understanding the additional capital required within those territories and if this will impact the overall regulatory framework under which the SA bank has to operate.

    - There may be some diversification benefits between the countries (low correlation in economic performance for instance) which will allow overall capital benefits for the "new banking group"

    - The bank needs to consider currency volatility and transfer risk of future dividend receipts.

- There may be different reporting requirements within the countries in question, relative to SA, and this could complicate the aggregation of the "new group's financials". So for instance, IAS39 or IFRS9 provisioning methodologies.

- There would need to be a full due diligence performed on any available institutions to understand both the price and the quality of the potential purchase. Post due diligence the expansion would need to be approved by the Board and shareholders.

- Certain countries may also provide gateway to other markets (Namibia may provide access into Angola).

After careful consideration the Bank decides to expand into Namibia through acquisition.

ii. Discuss the considerations in purchasing a bank as opposed to opening a brand new bank? [9]

This question was generally well answered. Some candidates failed to explain the implications of establishing a new bank. The valuation drivers of an existing bank were poorly articulated.

- Regulation:
    - An existing bank has already been approved by the regulator while a new bank will require a new banking license.
    - Banking licenses are carefully considered as the Namibian (host) regulator will not wish to introduce any additional systemic risk into the Namibian economy
- Business model:
    - Purchasing a bank includes an existing customer base and going concern. So the bank potentially already starts off with a banking book that generates some income / cashflow.
        - The risk here is that the bank needs to understand the quality and type of clientele they are acquiring – a due diligence will have to be performed to ensure that the credit book performance is sufficient and in line with the SA banks risk appetite and ROE requirements
        - Given Namibia's history and the currency parity to South Africa, the due diligence may be easier to perform and the customer performance easier to assess than the other countries.
        - The business case for a new bank will be contrasted to that of a existing purchase. The level of intervention the bank can bring to the existing operations will be a key consideration in the business case.
    - Starting a brand new operation in a new country requires a large initial cash outflow (purchasing / building a branch and ATM network) and it takes time for the investment to start breaking even
        - This is due to the fact that it takes a while to build the brand, to develop a branch footprint / network, and it then takes a long time to start switching profitable customers (enough for economies of scale) to your bank from competitors.
        - This is especially so if the market has generally very sticky customers, and if it is highly competitive.
- Branding:
    - Purchasing an existing operation means the bank is buying into (or taking over) an existing brand that has a foothold of sorts in the current territory. This means the bank will be taking over both the good and bad reputational aspects (however it means the brand name is already in the market). It also means that

the costs involved with getting the SA bank's brand established are far lower as there is a brand to leverage off

  - The bank will however need to determine to what extent it will rebrand the current bank (do they completely rebrand it or just portions thereof), and over what time period. There is an opportunity to potentially look to retain the "good" branding aspects already in place, and to augment them with some of the philosophies of the SA bank. It is key to get this balance right to ensure a cohesive brand is ultimately developed

  - The philosophical rebranding is one aspect, but if it is decided to rebrand completely to the SA branding there will be a reasonably sizeable cost in terms of refurbishing both the branch and ATM networks (which detracts from some of the cost benefits of taking over an existing operation).

  - If the South African bank has a great brand in SA, there is a good chance many Namibians may have heard of the bank and may even consider switching to the bank (which allows the bank to save on marketing costs).

- Funding:
  - The depth of the local currency funding market will determine the ease with which the bank can enter the market. Certain jurisdictions have experienced significant liquidity constraints, such as increased reserve requirements, that would make entry much more difficult than existing purchase

  - Given the currency parity with South Africa and political stability in Namibia, funding is expected to be easier to achieve than some of the other jurisdictions.

  - It is generally difficult to build up retail deposit base and therefore a new enterprise will most likely be funded with wholesale funding which will provide a disadvantage compared the more sticky retail deposits

  - There is, however, a risk that the customers (especially depositors / clients with cheque accounts) may move as they may not trust the acquiring bank, or may be concerned around the relative strength of the old bank (as they may assume the old bank was bought as it was in financial trouble).

- Systems:
  - Buying an existing operation has the benefit of knowing that the system in place is likely to be sound and compliant with local regulations or standards. As opposed to having to build one from scratch.

  - The concern here may be whether or not these operational processes are in line with the frameworks of the SA bank. AML and POPI requirements may not be met within an existing operation.

  - It also means that operationally speaking the systems will be fully integrated, and there is an operational process (scoring / underwriting / payout) in place that currently works and allows the bank to service customers properly and with some level of efficiency.

- Staff and Skills:
    - In buying a going concern the bank will already have staff in country potentially with the required skills to continue running the business, as well as having local knowledge and knowhow. Especially if the original in-house systems continue to be used

    - This is far simpler than having to bring in the bank's own people, from SA, or to hire new staff in country and up skill them either on existing in country systems (or the new SA systems)

    - However the bank is likely to want to put some of its own people into the new country (to ensure sound management and to cross skill staff) which can come with its own challenges (overstaffing as well as potential political difficulties around this process if the local authorities do not want foreigners placed in senior positions)

    - The staff at the current operation may have concerns around job security, so there is a risk that the better people land up leaving and the bank is only left with the weaker staff. As part of the takeover process there will need to be good and concise communication with the staff of the bank being taken over to ensure that the new bank has their buy in

[Max 9 marks in total]

There are five banks with significant market share in Namibia. The target bank currently provides the following products: Transactional Accounts (Retail Current Accounts), Unsecured Loans and Business Cheque Accounts. The market share that the target Bank has within the local market (advances, profit share per product) is as provided below:

Market Share		
Product	**Advances / Active Customers**	**Profit**
Transactional Accounts	17%	18%
Unsecured Loans	30%	7%
Business Cheque Accounts	73%	53%

The bank's profits are split between the products in the following proportions:

Product	**Share of Profit after Tax**
Transactional Accounts	30%
Unsecured Loans	20%
Business Cheque Accounts	50%

iii. Discuss advantages and disadvantages of purchasing this specific bank.

[11]

This question was poorly answered. Candidates concentrated on the information provided in the tables instead of discussing the advantages and disadvantages of purchasing the bank.

- The bank being purchased is not a "full service bank" in the sense that there are no Credit Card, Vehicle Finance or Mortgages books. It also seems to have limited exposure to the Commercial / Corporate banking segments

- So the purchase will not have the advantages of being diversified across all products and does not have the advantages of having some element of collateralized products. The entire book is unsecured (from a lending perspective)

- However the bank is buying into an institution that has a reasonably large number of current (transactional) accounts which means there is a decent customer base with which the bank can look to sell into should the bank decide to enter the other product markets

- It would be valuable to obtain additional information around these current accounts to understand if these include overdrafts, and what the banks relative market share is of these limits and exposures.

- Current accounts also typically have fairly large "lazy deposits" attached to them, which means in purchasing this bank there is already some level of self funding that comes along with it

- If the bank does wish to compete with the other banks with their missing products it will have to ensure it can develop / purchase / adapt systems to allow for these missing products.

- This comes with its own challenges in the sense that the bank would be starting "from scratch" in the market if it wished to enter this part of the market (from a branding perspective).

- Market shares of products:
  - This bank has a disproportionate market share in the business banking space. In fact so much so it is far out of line with what one would expect (and the relative profitability looks decent). The concern here is not necessarily the large market share in itself (as if it is appropriately priced then this is not a bad thing), however this does pose a potentially large concentration risk and potentially limited growth opportunity.

  - Furthermore the business bank current accounts will provide relatively less expensive funding, which is probably the reason for the high level of profitability.

  - If the commercial segment starts to take strain, e.g. slower economy or a stress that specifically hurts large chunks of the book, the bank is heavily exposed (by volumes) and the bank is also relying on this portion of the book to generate around 50% of its overall profits, which is a large percentage in itself.

  - Given the lower levels of market share in the transactional and unsecured loans, this indicates growth opportunity in lower yielding business lines.

- Profitability of the products currently on book:
  - Transactional business looks fair i.e. the market share of this product is roughly in line with that of their profit shares. So the product is at least performing in line with the market / competitors which is comforting.

- The business current account product has a slightly higher market share relative to their profit share. This may be the reason for their higher market share as perhaps the product is priced very competitively.
    - This does mean that there is potential to tweak the strategy for either more profitability (by pricing up but this will be at the expense of market share) or differentiating the product more (on risk for instance) to improve the ROE's (as there is plenty of business on the books)
    - There is also a serious risk that if the competitor banks start pricing similarly or more competitively, or improve processes to match ours, then there is a risk of both losing market share and some level of profitability (in absolute terms).
- The unsecured loans product would be a big concern. The bank has a slightly disproportional market share (30% instead of perhaps 20% given there are 5 large banks), however the profit share is particularly low (at only 7%). This could be as a result of several things:
    - Could have been the strategy to grow the book, pricing highly competitively, to grow market share. Are the ROE's sufficient for this strategy though?
    - Can the bank price up to boost profitability again (ROE), and how much will this impact relative market share or volumes.
    - The application process could be exceptional at the bank, boosting market share (so it is not a pricing play), but the book is performing much worse than it should (so either risk scorecard is not working, or collections strategy).
    - Either way irrespective of the reason for the disproportional shares, there is no doubt that something would have be done to improve the relative profitability of this part of the purchased book

- The bank being purchased does have a relatively large reliance on the transactional products for its total profitability (80%). Typically this is not a bad situation to be in since transactional products are generally "sticky" in terms of customer retention and typically generate good income during all economic cycles (unlike many credit products).
    - That said it would be good for the bank to look to diversify its product offering as long term profit growth and stability will be improved the more sources of income the bank has
- The bank has been able to develop significant market share. This indicates well developed systems and controls as well as potential deep relationship with the regulator.

[Total 29]

QUESTION 2

Bank XYZ intends to develop a new information technology system for card transactional payments in order to replace its current system. The IT process is a critical cornerstone of the bank's operations. You are an independent consultant and have been approached by the regulator to provide a risk assessment on the project.

i. a) Describe how you would undertake the risk assessment;
b) outline the difficulties you may encounter and
c) explain how you may resolve them. [12]

Following the conclusion of the project the regulator noted an increased number of customer complaints regarding bank charges on Bank XYZ transactional products.

ii. a) Discuss approaches to how transactional product might be priced and how the cost of the system replacement might be incorporated into the pricing. [4]

b) With reference to the increase in customer complaints, outline the risks associated with the approaches to incorporate the system replacement costs and how these could be mitigated. [4]

[Total 20]

This question was poorly answered. Some candidates did not describe how to undertake a risk assessment and in particular the processes involved. Instead candidates explained what a risk assessment is and therefore did not secure available marks.

Risk assessment

- Purpose: The role of the independent project risk assessment is to provide comfort to the regulator and to support the risk management process. The independent assessment would identify the causes of risk to project delivery, their management, mitigation during the project as well as post-delivery.

- Approach: This would be done by interviewing appropriate staff, including the risk project manager, and reviewing the risks and outcomes of the project. Reference can also be made to similar projects if available.

- Significant emphasis will be placed on quality of documentation and the ability to of the documentation to independently verify the output from the interview processes

- The project manager would be expected to keep formal track of risk identification and regularly report the risks throughout the project. The independent assessment will conduct an audit of this process. Furthermore the independent assessment processes will seek to obtain comfort that key performance indicators are maintained to ensure risks can be tracked.

- In particular, evidence will be sought on workshops held for the purpose of identifying the risks and any mitigants that might be employed. Part of this would be to assess how risks are related to each other. Scenario planning should be used to illustrate the impact of combinations of risks and it will be important to assess the viability of the delivery.

- For each risk, the risk process manager would estimate the probability and severity. If there are any key areas where the timing of the risk may be more severe, this should be considered.

- Clear contingency details are required given the criticality of the system.

- The financial impacts of the contingencies should be reviewed for reasonableness.

Difficulties encountered and how to resolve them may include:

- The project may have been under cost pressure. As a result all governance, documentation and testing may not have been completed.
  - o The bank may not have completed all actions items and remedial work may address immaterial issues.
  - o Material failures, that cannot be rectified need to be escalated as a matter of urgency.
  - o Such failures need to be identified, collaborated and confirmed by the bank’s senior management, approved and escalated to the regulator.

- Individuals may not be able to assess probabilities and impacts accurately. They may not have the experience and can be prone to making poor estimates of probability. This can be mitigated by ensuring that the risk assessment meeting has a range of individuals involved with different backgrounds. The experience of similar projects can also be used as a further validation.

- The involvement of an outsourcer may make it difficult to get an accurate assessment of the risks that they are running. The outsource contract would need to be examined to determine what covenants were included within it should a risk crystallize so that the net impact of the risk can be determined.

- The project output may not have been properly tested. Key details of design principles, detailed definitions of data, unit testing, key controls both for traditional and agile approaches need to be verified. In extreme circumstances it may be required to halt the project until the corrective actions has been taken

Similar arguments max[12]

(ii) a)

This question was very poorly answered. Most candidates understood the key principles but failed to highlight the range of approaches available.

The approach to card transactional product pricing varies greatly:

Card issuing

- In certain jurisdictions an entry level debit card is priced without any transaction charges. Instead the bank relies on the net interest margin on the deposits in these accounts to recoup costs.

- However, currently in South Africa, the range of charges on transaction products vary greatly in line with the type of benefits offered. These include but are not limited to
    - The number of transactions – card swipes
    - The number of transactions – withdrawals
    - The number of transactions – debit orders
    - Minimum balance
    - SMS update notifications
    - Ancillary benefits such as loyalty programmes, travel benefits, taxi services etc.

- For corporate card transactional product a range of options exist which may include:
    - The volume of transactions – card swipes for eligible procurement
    - Size of aggregate transactions
    - The lifestage of the corporate client

Card acquiring

- The product will be priced by the acquiring bank subject to the conditions of the card association
- Fee will be based on gross sales minus reversals plus interchange fees and certain specific allowance for back charges

- The costs may be capitalized or incurred as running costs. Given the importance of card transactional business, the cost of the system change is likely to be high. In such an instance, the costs will be capitalized and amortized through depreciation charges throughout the lifetime of the system.

- Due to competitive pressure, it is unlikely that the system replacement will be priced explicitly. Instead fees will be extrapolated based on expected portfolio and transactional growth and the present value of the fees will be compared to the present value of all running costs, including the cost of system amortization.

b)

- The business case for the new system may be challenged. If the planning assumptions used prior to the system development do not transpire then the bank may not be able to recoup the cost over the expected lifetime.

- The cost allocation may result in the product becoming uncompetitive in the market.

- This will happen if the volume and scale projections used during the initial product are not viable.

- The increased number of customer complaints can be indicative of risks to the product pricing, system delivery or poor customer communication and change management.
- Lack of accountability from a front line perspective may result in scope creep and wasteful expenditure in the system development team.

- The risks can be mitigated by enabling an efficient change management approach for system change.
- The risk can also be mitigated by setting price increase in line with the most inelastic preferences of customer. For example transaction based price increases may be considered more equitable than monthly price increases.

- Clear accountability to business line managers and cost allocations to their budgets will support measurement and management.

- Stress testing of input assumption will provide insights into appropriate targets and sensitivities when these are not met.

QUESTION 3

You are the CEO of a small South African based micro lender. The bank's funding consists of a mixture of wholesale and retail consumer deposits. The bank currently sells unsecured loans, with term of between 36 and 60 months, into both the South African and Botswana markets. Funding and exposure details are shown in the table below (roughly 50/50 split between the countries).

Balance Sheet

	Assets (R'm)	**Liabilities & Capital (R'm)**
Retail Loans – Prime Linked (BWP)	3 613	
Retail Loans – Prime Linked (ZAR)	2 451	
Retail Loans – Fixed (ZAR)	1 240	
RSA Bonds (ZAR)	40	
Cash (ZAR)	35	
Wholesale deposits (BWP & ZAR)		3 973
Retail deposits (BWP & ZAR)		1 576
Interbank (BWP & ZAR)		625
Equity		1 205
Total	**7 379**	**7 379**

i. Discuss the risks inherent in the balance sheet, and ways in which to mitigate these risks. [7]

This question was well answered.

- There is a currency risk as the split of ZAR and BWP currency is not clear, however c50% of the asset book is comprised of loans in Pula.

- Interest rate risk is evident in several forms:
    - There is potential gap risk as firstly the contractual tenure of most of the funding is overnight, potentially allowing all funding to be withdrawn immediately. Especially since a fair amount of it is sourced from wholesale and interbank funding – as such there is a large risk of funds being withdrawn rapidly under stress situations.

    - However the behavioural tenure of the funding may be more stable than this in reality (especially retail deposit funding).

    - There is also a fairly large refinancing risk as a large chunk of the financing is from wholesale funding which can flow out quickly especially if there are rumours of the bank having problems. Rates offered for this part of the funding may need to be adjusted quickly

    - A fair percentage of the asset book is comprised of fixed rate loans, but all the funding is linked to an index rate of sorts and is variable. So the bank is exposed to movements in the prime lending rate and this could cause a squeeze on NII (depending on which way rates move of course, there is a chance the NII could increase too).

    - In addition there is a basis risk that the bank is exposed to. The Botswana lending may be prime linked, but this is the prime rate in Botswana which will not necessarily move in line with that of RSA. So there is a risk that the base rates move differently relative to each other.

- There is a clear lack of free cash available for disbursing new loans on their portfolio, so if the bank is looking to grow exposures as a bank they need to acquire additional funding to allow this to happen with ease.

- There is only a very small liquid asset buffer available to the bank in the event of a stress scenario playing out (even a slight stress scenario).

- Possible mitigants that can be employed to reduce the risks of this operation:
    - Make use of currency futures to mitigate / remove some of the currency risk

    - Interest rate swaps could be used to hedge out the interest rate risk (the differential between fixed assets and variable funding), as well as the mismatch between the linking of the rates (Botswana prime versus RSA prime). Although how readily available these swaps are is questionable (especially the prime "swaps" market has not been established yet)

    - The bank could look to start originating deposits in Botswana (if there is a market for this), that are prime linked, to at least remove some of the currency and basis risks.

    - The bank could ensure it has sufficient access to funding from the SARB (in case there is a need for this as a last resort as this is not ideal) – as they have such a low level of highly liquid assets.

    - The bank should look to increase its funding overall to provide it with both a buffer and also available cashflow to grow the asset book (if this is their strategy). It is just a question of how much funding is "easily available" and at what cost (and if this cost can be passed onto the customer or if it will result in lower NII and returns).

ii. Explain how the bank would manage the interest rate risk in the book.

[3]

This was the most poorly answered question in the paper which was surprising. Candidates often failed to mention the governance process required.

- The most important thing as a starting point is to ensure there is a proper treasury team (ALCO) that is set up or is already in existence in the bank. This is important as this is the area responsible for overseeing all aspects of balance sheet management including capital, asset and liability management. This includes raising of funds, all aspects of reporting and risk management.

- Typically, in conjunction with the board, treasury will assist with setting up the risk appetite with respect to asset and liability risk management and will set limits (and early warning triggers) across several metrics to ensure that the funding and interest rate risks of the bank are kept within reasonable ranges.

    - In the case of this bank these limits will need to be set independently of where the actual metrics are currently (there is no doubt that several of the limits would be breached if they were set using "industry norms").

    - The bank then needs to consider all the metrics that are in breach currently, and will have to propose strategies to rectify each of these metrics over time (with realistic but possibly short timelines) to quickly get the bank's asset liability mix in line with reasonable expectations.

    - With the advent of Basel III in SA some of these plans may have to be implemented even quicker in order to ensure compliance with the new regulations and the metrics required (LCR for instance).

- The treasury area needs access to regular MIS regarding movements of the asset and liability books. It needs to ensure all the relevant monitoring metrics can be generated using this MIS in a timeous manner and ensure that it is available as often as is typically required (monthly / weekly / daily).

- Stress testing needs to be performed on the book, encompassing several risk events and outcomes, to understand where their current weaknesses and risks lie such that the bank can look to either hedge these out (with appropriate market products) or can look to reduce these risks using other means (for instance potentially raising more funding to increase their LAB).

The head of sales has suggested adding a new product to the current loan offering. It is a loan with interest and fees payable monthly, and a bullet payment of the full initial capital amount due at the end of the tenure of the loan. Loan terms will be for 60 months only, the product will only be offered in South Africa at fixed interest rates to keep the client installment payable flat. He furthermore suggests that the product should be funded using 60 month fixed deposits.

iii. Discuss the risks, benefits and other considerations associated with this suggested product in comparison to the current loan and funding products.

[5]

This question was poorly answered with candidates making relevant but insufficient number of points.

- It would be expected that these loans will typically perform worse than standard loans / would be riskier. This is as a result of some additional risks that occur as a result of the product design:

- The duration of the loan is long, and hence there is more time for something to change in the clients' employment / financial circumstances which will increase the risk of a default at some stage.

- The EAD for the loan will be particularly high, as the capital is not repaid and is simply a bullet payment at the end of the tenure of the loan. So the risk of a large loss is far greater than with an amortizing loan (relative to the original capital disbursed).

- The suggested product offering (as made by the head of sales) is completely inflexible (fixed term 60 months and no capital repayment whatsoever over the tenure of the loan). There may not be much of a market for this product in reality if it is this inflexible. It is probably better to allow some flexibility in the term, and possibly to allow differing levels of final bullet to be payable (not just 100% of the original capital amount).

- Capital modeling would have to be performed specifically for this product as a result of this, to correctly allow for the LGD / EAD of this product (PD may also be slightly higher as there may be some incentive to not repay the debt in the end). Since this product is not something widely offered in the market using market data in order to assist with this endeavour is also not a likely possibility

- Provisioning on this product would also need to be carefully considered, especially if the customer makes use of the product to restructure current debt (consolidate debts) already on hand. This product allows extreme extension of these commitments and as such it could hide client stress for a longer period of time.
- There is a high pre-payment risk associated with these loans. So while it could be possible to match the contractual tenure of the loan, the actual behavioural tenure could be different in reality.

- While at face value it appears that funding these loans with equivalent duration deposits is a good idea, there may not be a readily available market for this sort of funding in the market. Very long term fixed deposits are not overly popular in the market (especially for fixed rates – variables rates are slightly more common). The bank may also need to fund at variable rates and instead hedge out the interest rate risk separately.

Benefits:

- This product is fixed rate and as a result clients are less exposed to interest rate movements (or risk) in their personal capacity, so this product would give the bank more options in terms of product offering and gives the client some level of comfort around their future obligations.

- As the product only requires capital to be repaid right at the end of the contract, it allows a client a much smaller installment relative to the amount of capital disbursed (giving the client more affordability at inception – possibly a good debt consolidation product).

iv. Describe liquidity risk monitoring metrics that can be used to track and understand the liquidity risk inherent in a banking portfolio.

[10]

This is a bookwork question. This question was well answered.

- Loan To Deposit Ratio:
    - This is a standard and most commonly-used metric, typically reported on a monthly basis. It measures the relationship between lending and customer deposits, and is a measure of the self-sustainability of the bank

- Cumulative liquidity model (extended view of the 1 week and 1 month liquidity ratios):
    - This is an extension of the liquidity ratio report and is a forward looking model of inflows, outflows and available liquidity, accumulated for a 12-month period. It recognizes and helps to predict liquidity stress points on a cash basis through time.

- Liquidity risk factor:
    - This is a snapshot measure which shows the aggregate size of the liquidity gap: it compares the average tenor of assets to the average tenor of liabilities. On its own, a one-off LRF number is of little value. It is important to observe the trend over time and the change to long-run averages, as this will give one an early warning of the build-up of a potentially unsustainable funding structure.

- Concentration report and funding source report:
    - This report shows the extent of reliance on single sources of funds. An excess concentration to any one lender, sector or country is an early-warning sign of potential stress points in the event of a crash.

- Inter-entity and Intra-group lending report:
    - This report is a valuable tool used to determine both how reliant a specific banking subsidiary is on Group funds, and also to what extent it is approaching any regulatory limits that may be in place.

- Net Stable Funding Ratio:
    - This is a Basel III requirement and is the ratio that measures the amount of long-term stable funding relative to funded assets and off-balance-sheet

liquidity exposures. It is intended to promote longer-term structural funding of the Bank’s balance sheet.

- Liquidity Coverage Ratio:
  - This ratio measures the amount of unencumbered, high-quality liquid assets that can be converted into cash to meet liquidity needs for a 30 calendar day time horizon under a significantly severe liquidity stress scenario. It is a Basel III requirement to monitor this ratio and it is intended to promote short term resilience of the Bank’s liquidity risk profile.

- Encumbrance Ratio:
  - This ratio measures the amount of encumbered assets (not available for use in times of a stress) against total assets. The purpose of monitoring is to understand the extent to which the Balance Sheet is encumbered and to understand opportunities for further pledging of assets and to comply with regulatory requirements for covered bond and securitisation programmes.

- Type A : Type B Ratio:
  - This ratio compares the amount of Type A customer deposits (“non-stable”) to the amount of Type B customer deposits (“stable”). The purpose of monitoring this ratio is to ensure that lending is funded through stable customer deposits.

- Liquidity Asset Buffer (LAB):
  - This is the total value of assets that are available to be used in times of funding stress. Tracking this value over time as well as looking at the point in time view gives Treasury an appreciation of the ability of the bank to manage stresses with respect to funding and how this ability changes over time.

[Total 25]

QUESTION 4

ABC bank has been operating for 30 years and is one of the largest banks in the country. The local market is dominated by 3 large banks. The CEO of ABC wants to aggressively increase market share in the next 5 years.

To assist the Board of Directors, the CEO has commissioned a report from a consultancy that explains the key considerations for formulating a strategy in light of this ambition.

i. Suggest the points that should be made in the report with respect to:

- The expectations of different groups of stakeholders
- Macro and micro-economic considerations
- Capital management and funding
- Risk appetite

[20]

This question was poorly answered with candidates making relevant but insufficient number of points.

i) There are several factors that will have to be analysed and understood in order to develop the Bank’s strategy. These are discussed below:

1. Stakeholder expectations:

The strategy will need to consider the various stakeholders, including shareholders, regulators and clients.

- Shareholders
    - Shareholder expectations assist in defining financial targets.
    - Shareholders will want to ensure that the ambitions of the CEO balance risk and return.
    - A very aggressive strategy will require higher levels of capital and consequently would need to offer shareholders a higher return on capital.
    - It will therefore be necessary to identify the most efficient level of capital to spend on the venture.
    - It would also be important to ensure that other higher yielding investments are not overlooked.

- Clients
    - Client expectations – considering both current and future clients – may assist in defining products and service delivery expectations.
    - Increasing market share should involve both a retention strategy as well as a marketing strategy to gain new clients.
    - The company will need to consider whether they will pursue clients from competitors or move into untapped markets e.g. low income markets that were previously not served. This will present different levels of risk and return.

- Regulators
    - The expectations (and requirements) of regulators, particularly in the banking industry, may have a significant impact on what is possible, and the resources, both financial (often in the form of capital), and people, required to support a particular plan.
    - The regulator is likely to increase scrutiny on the bank if volumes increase significantly in the short-term.
    - The company will need to ensure that any regulatory requirements are met in terms of new product terms and conditions, changes to capital held etc.

2. The macro (economic) and micro (market and market segment) environment:

- Macro economic environment
    - The company will need to consider expected macroeconomic development in the next five years.
    - If significant growth is expected over the period it may be a good time to expand, since people are expected to be spending money and therefore will have a greater propensity to take out credit or purchase investment products.
    - If the economy is projected to slow down in the next few years, this will likely reduce the potential impact on market share of any marketing strategy.
    - The macro-economic environment in the next few years will also impact the types of products that will be in higher demand.
    - The expectation of a high interest rate environment should prompt the company to focus on savings and investment related products.
    - Conversely the expectation of a low interest rate environment should prompt the company to focus on credit related products such as mortgages and credit cards.
- However, one has to bear in mind that predictions can be dangerous and so any chosen business strategy should be robust under various scenarios.
- For a bank, this is particularly important, and capital and liquidity management, under various scenarios, is a key aspect of any plan.
- Micro-economic environment
    - The company will need to consider the profile of customers within the chosen segment, including factors such as:
        - Age
        - Disposable Income
        - Marital status
        - Number of dependants
        - Types of occupation
        - Existing products held etc
    - These factors will have a bearing on the market's demand for certain types of products.
    - For example, middle-aged white collar workers are likely to have a higher demand for mortgage related products than recent graduates.

3. Capital & funding:
    - The company will need to consider whether there is sufficient excess capital to pursue the CEO's growth plans.

- If additional funding from third parties is required there may also be questions of risk management.

- Capital and funding are central to any strategic plan, as the bank should be able to demonstrate its robustness, within the context of its chosen strategy, through a full business cycle and under extreme stress scenarios.

- Such a consideration is a regulatory requirement in most jurisdictions and needs to cover both the sufficiency of capital and access to liquidity under both "fair weather" and adverse business conditions.

- For this reason, capital and liquidity management (in effect, the structure of the bank's balance sheet) lie at the heart of bank's strategic plan and will guide the bank's capacity for embarking on the new venture.

- Capital sufficiency and liquidity will be affected by the nature of products sold to new clients and the speed at which the portfolio grows.

- For example, rapid growth in credit related products could lead to potential liquidity strain in the short-term as well as a need to increase credit provisions, whereas a focus on investment related products would be less likely to negatively impact the bank's liquidity and capital profile.

- Capital requirements will also depend on whether the Bank is on standardised or advanced approaches and the relative risk weights between the two.

- Whatever the position of a bank, these issues remain central to the development of their strategic plan and any plan will continuously be tested against its potential impact on capital levels and liquidity profiles.

- Similarly, the strategic plan will have to take account of the bank's ability to attract appropriate duration funding and, where necessary, to raise capital over the entire planning period.

4. Risk Appetite:
    - Risk appetite is shaped by a number of factors, including:
        - Board and shareholder appetite for variations in financial performance and expected levels of profitability (e.g. return on equity or return on capital – see below);

        - Absolute and relative levels of loss absorbing capital and regulatory requirements;

        - Funding structures and liquidity profiles;

    - Reputational and market positioning of the bank;

    - Operational robustness and managerial capacity.

- The strategic plan will have to be assessed against the framework of the risk appetite for the bank as approved by the Board.

    - For example, rapid growth of the balance sheet is unlikely to be a choice for a bank with a low tolerance for credit risk surprises,

    - while geographical expansion might not be a top priority for a bank with a low tolerance for operational risk –

    - however, this may well be a strategic option for a bank with significant capital buffers, robust operational processes and a deep pool of managerial talent.

- The company will need to consider its particular situation with respect to such features in order to choose the appropriate means of growing its portfolio. An element of this will be the capital and liquidity management plans as previously discussed.

[Total 20]

Following discussions with the Board the CEO has extended the time horizon of the growth strategy to 8 years, with the first three years focused on internal restructuring

ii. Suggest reasons why the company might want to restructure as part of its strategy.

[6]

This question was poorly answered with candidates making relevant but insufficient number of points. Some candidates ran out of time.

Reasons why the bank may want to restructure:

- The company may be looking to change or make improvements to the way it engages with clients.

- This could involve making use of new technology which may require setting up a dedicated team of specialists including both the hiring of new resources and moving around of existing resources.

- The company may want to scale down existing operations to make way for new plans.

- This may involve closing branches and departments that are no longer required at all or at the same scale to support the business going forward.

- The company may want to create a more efficient operation which would involve reducing costs where possible and streamlining processes.

- The company may want a dedicated team to drive certain aspects of the new strategy (e.g. marketing) which could involve hiring new staff and moving existing staff to the new team.

- The company may plan to acquire another company as part of its strategy and may need to restructure as part of the integration process.

- There may be new regulatory/legal requirements that lead to a need to restructure.

- The company may believe that a different structure is necessary to support its plans for aggressive growth.

- …For example it may decide to grow existing departments to achieve sufficient scale to manage the expected influx of new clients or build new competencies to improve its chances of meeting its growth targets. Both these changes would likely require a broadening of management capacity and acquiring new staff and expertise.

- The company may want to outsource parts of its business which it believes would be more efficiently conducted by a third party.

- The company may have identified its current structure as out of date or out of line with market practice.

[Total 6]

[Total 26]

[GRAND TOTAL 100]

END OF EXAMINATION