

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

A Committee of the Council of ICPAU

CPA(U) EXAMINATIONS

LEVEL FOUR

INTEGRATION OF KNOWLEDGE – PAPER 16

COMPREHENSIVE CASE STUDY

MORNING SESSION MATERIAL

TUESDAY, 15 JUNE 2010

INSTRUCTIONS TO CANDIDATES:

1. Time allowed: **6 hours**.
9.00 a.m. – 11.30 a.m. (2 hours 30 minutes): Planning.
11.30 a.m. – 12.30 p.m. (1 hour): Break.
12.30 noon – 4.00 p.m. (3 hours 30 minutes): Writing.
2. The following pages contain case study material.
3. The case study questions are contained in a separate paper marked Afternoon Session Material.
4. The completed answers and any working papers, clearly labelled working papers must be handed in at the end of the afternoon session. Where working papers form part of your answer, ensure that they are appropriately cross-referenced.
5. It is in your interest that you hand in all written material prepared during the examination.
6. Tables are provided on page 15.
7. Please read further instructions on the answer book.

The Polimuria Development Bank

Background

The Polimuria Development Bank (PDB) is a development finance institution operating in the Mzansi Development Community (MDC) region with a mandate to foster the economic development of MDC member countries. The Bank was set up in 1960 with an initial authorised share capital of United States dollars (USD) 150 million. The bank's core business is development finance with products mainly in the form of long-term loans, leases, venture capital and working capital finance. The head office of the bank is in Maweni where most of the executive and administrative functions are performed, with country offices in all the MDC member states. The bank is owned by the member countries of MDC all of which have an equal shareholding. These include Angola, Zambia, Tanzania, Mozambique, and Lesotho among others. Each of these countries also nominates two representatives to the board of directors; the permanent secretary in the finance ministry and a private sector representative. The board of directors is the final decision making organ of the bank.

Early Years

Established in the early sixties, the bank is among the few regional institutions that survived the turbulent times of the sixties and seventies when several countries in the mzansi region were struggling for independence, as well as the civil wars that ravaged some of these countries for decades, with several military governments succeeding one another.

In the early years, the bank was doing very well, with a niche in long-term foreign currency denominated lending. Very impressive performance was reflected in those years with a huge return on equity (ROE) that at one point hit 20%, and return on capital employed (ROCE) hitting the 12% mark! This performance was largely attributed to the fact that the bank was the only foreign currency denominated lender in the region with products including United States dollar (USD), Japanese yen (JPY) and Great Britain pound (GBP) loans. At that time, most of the African countries run fixed foreign exchange management regimes with their central banks as the only authorised dealers in foreign currency. All importers or travellers had to apply to the central banks for foreign currency, which was then offered at non-negotiable rates. Back then, it was illegal to privately trade in foreign currency. As expected, there were some illegal dealers in most member states, popularly known as "Kibanda" who always quietly bought and sold foreign currency. It is alleged that some bank staff both

in Maweni and in the regional offices amassed a lot of wealth from dealing in foreign currency; especially the US dollar which is the bank's reporting currency.

Business Processes

The bank's processes can be described as bureaucratic and slow. The core business line is lending, with funds obtained at concessionary terms in form of lines of credit and then on lent to clients. This money is normally borrowed at LIBOR¹ + a small margin, and on lent at variable rates. The lending rates are therefore computed as cost of funds + risk margin and profit mark-up.

Project Appraisal

Business inquiries are handled by the relationship managers who are based at the regional offices, as well as at the head office. These are the interface between the bank and its clients. When an application for finances is received, a preliminary review is carried out to determine whether the proposals are bankable. If the review is positive, a detailed appraisal commences after the client has paid a refundable appraisal fee of 0.8% of the required amount. The detailed appraisal involves the relationship manager working hand in hand with the sponsor to appraise the project after which a project paper is submitted to a credit committee for approval. This process normally takes approximately two months. Amounts less than USD 200,000 are approved by the credit committee, while those in excess must be approved by the board. Membership to the credit committee includes the CEO of the bank, the head of the legal department, head of operations and head of risk management, while the respective relationship managers may attend on invitation.

After approval, funds are remitted to the clients often in one disbursement. On some occasions, funds have been remitted directly to the contractors (in the case of construction financing) and suppliers (in the case of machinery financing). However, there are some cases where funds have been remitted directly to the sponsors' private accounts.

Project Implementation and Closure

Progress of implementation is monitored by the relationship managers who report to regional managers. It is also the responsibility of relationship managers to follow-up payments, and ensure that money is received on time.

¹ LIBOR refers to the London Interbank Offer Rate. London is widely considered the centre of corporate finance, and so is the place where global lending rates are largely determined.

There is no separate unit in charge of project monitoring or evaluation. Consequently, there is no formal documentation of project closure and evaluation of the completed projects so as to pick up lessons. Similarly, a split between appraisal and monitoring has been debated before but no conclusive decision was arrived at.

When projects turn bad, they are taken over by a specialist recovery unit under the operations department. The unit currently comprises of four persons. Working together with the legal department, these are the persons in charge of recovering bad loans and realisation of securities.

Turbulent Times

Changing Business Environment

The early 2000's saw the business environment turn quite hostile for the bank, with commercial banks making inroads into medium and long-term lending. This was largely attributed to the liberalisation policies in the region that opened up the foreign exchange regime, and the financial sector at large. Following liberalisation, governments allowed private players to run foreign exchange bureaus and financial institutions as long as they met the regulatory requirements. These institutions have since revolutionised the financial services sector in the mwanza region. Commercial banks, credit institutions and micro finance deposit-taking institutions have amassed huge deposits which are then on lent to borrowers at relatively low rates. What was previously a niche to PDB is now being eaten into by other players in the market. In these institutions, depositors are offered rates that are as low as 0.8% yet lending rates could go up as high as 26%.

At the lower end of the market are the numerous unregistered micro finance institutions. These generally operate as savings and credit cooperative societies (SACCOS), with some operating at sub-county level. It is a combination of all the above institutions that has made business difficult for PDB.

Noting the deterioration in performance, the bank changed its management team in mid 2006. The retiring CEO (Mr. Agenze Alfred) had been in office for 18 years, and had presided over some of the most fruitful years for the bank, at least as regards turnover. It was partly under him that the bank saw unprecedented growth in its portfolio. Annual disbursements had hit USD 90 million in 1996. Unfortunately, it was also under him that the bank's portfolio started showing major signs of deterioration in quality. The bank started to register huge defaults and loan foreclosures. Several securities were seized, and

on some occasions loans written off without recoveries owing to the unenforceable (defective) securities held by the bank.

The above deterioration in performance, however, was not entirely caused by internal inefficiency. From around 2002, there was a huge downturn in the economic performance of the member countries. One of the worst droughts in nearly a century hit the region and was followed by disastrous el-nino rains which caused widespread damage all over the region. Although the impact was initially expected only in the agricultural sector, the effects soon spilled over into other sectors of the economy. This led to several clients failing to meet their scheduled loan repayments. In some countries, the political problems involving white farmers did not help matters, as defaults continued to rise.

At the bank, however, these clients have not been downgraded given the laxed provisioning policy that has been in use since the early 1990's. Income in form of loan interest is still accrued in full. Customers who are, for example, six months in arrears are still considered normal clients with no specific provision being made apart from the general 2% provision. The provisioning policy has been previously questioned by the head of risk management and the head of internal audit but they were 'shut down' by the CEO. In their view, it was important to review the project fundamentals in the respective countries and then revise the grading appropriately. Their pleas fell on deaf ears! They even quoted the requirements of International Accounting Standard (IAS) 39: Financial Instruments: Recognition and Measurement, and IAS 37: Provisions, Contingent Liabilities and Contingent Assets but to no avail. "This is a time when we need everybody to work together as a team, not a time to criticize others" said Mr. Agenze. "What the bank needs now is clean books of account so as to look good to providers of finances. Increasing provisions is clearly the contrary," he added.

Ironically, some of the bad loans referred to above were owed by politically connected individuals in the member countries, while others were owed by projects that were bad "ab initio". The latter were projects which subsequent review had showed that the appraisal process was poor. How else can you explain the remittance of money into an account that does not belong to the applicant company! Or how would one explain the remittance of funds to a supplier whose company was created only a couple of months prior to the remittance! To worsen matters, some of the remittances were made in single tranches! It was the coming to light of these facts that led to major management changes in 2006.

The Management Changes

The first casualty was the head of credit operations, Mr. Moses Mugenzi, a Ugandan expatriate who was asked to leave immediately. Being a contract employee, he was paid full salary for the remaining period of his contract in compensation together with full retirement benefits (pension). Mr. Mugenzi was a seasoned lawyer who spent some years in the bank's legal department before his appointment as the head of credit operations. Prior to the payment of his terminal benefits, there were concerns over the tax implications of his termination. He argued that since he was after all a non-citizen of MDC member countries; there was no way his terminal benefits were going to be subjected to tax. He argued further that it was already going to be taxed by the Uganda Revenue Authority (URA) upon his return to Uganda. He had worked as an expatriate for only three years. Since the finance team was unsure of Mr. Mugenzi's residence status, his terminal benefits were not taxed.

In August 2006, the head of finance, Mr. Mohammed Kibuuka was also asked to leave, and was given a three months notice. He insisted that if he was to leave, he had to be paid as much as what was paid to the head of credit operations. However, his pleas to the board fell on deaf ears, as it was argued that 3 months notice was in line with his employment contract. A few months down the road, Mr. Agenze Alfred the CEO was also asked to leave.

It is now understood that the former head of finance (Mohammed Kibuuka) is contemplating suing for wrongful dismissal, and wants a payout of USD 100,000 in compensation. His lawyers have written to the bank with a notice of intention to sue. Professional opinion received from the bank's external lawyers indicates that the bank is likely to lose the case. They have in fact advised that an out-of-court settlement be pursued. This payout has not been provided for in the bank's financial statements.

The departure of the entire senior management team created a power vacuum with no substantive heads of all major departments. An interim CEO Mr. Abubaker Kamau was appointed approximately six months down the road, and was confirmed in position in late 2007. Mr. Kamau is a retired World Bank employee where he spent a good 25 years rising from a young graduate trainee to a senior principal projects officer. He has remarkable experience in project finance although there are some concerns about his management skills. He is an autocratic leader who always ensures that his point of view sails through.

Other Banking Industry Problems

Other problems faced by the banking industry in the mwanzi region are highlighted in **Appendix 2**.

Turnaround Time

Engaged as a turnaround specialist, Mr. Kamau is now working tirelessly to change PDB's fortunes. The bank has been making losses for now three consecutive years, and there are low prospects of returning to profitability in the near future. (See extracts from the financial statements in **Appendix 1**)

The bank's credit rating agency S&P (Standard and Poor) has downgraded the Bank to B⁻ - (B minus) although with a positive outlook. This is likely to make borrowing even more difficult or very costly, if there are willing lenders! With no funds to lend, there is likely to be further shrinking of the portfolio. The bank is also facing an increasing exposure to foreign currency risk. There is an increasing number of clients who prefer borrowing in their local currencies, rather than the US dollar. Given the fact that the bank's reporting currency is the US dollar, there are concerns over foreign exchange risk management. Asked about the likely exposure, the bank's head of treasury says.... "given our current IT system, it is difficult to tell whether we have incurred losses or gains on foreign exchange transactions. We shall not be able to tell until we get an IT system that can relate the sources and uses of money."

Asked about the challenge at hand, Mr. Kamau stresses the need for a cultural change at the bank..... "If we are going to help this bank, a lot of things must change. Take, for example, the operational inefficiencies! Some staff do not even read emails for days! How can we work in such an environment? Meetings are held and no minutes are recorded; decisions are made but nobody cares to follow them up; we cannot tell which projects are financed by which sources of funds; the list is endless! Whether it is an attitude problem or a competence matter, things must change. It's not business as usual any more."

Shortly after his arrival, Mr. Kamau assigned the business development manager the task of identifying sectors for potential intervention by the bank. "I understand we do not have a research unit to guide our sectoral investment decisions, but please do some research and advise me accordingly. We cannot keep investing in the agricultural sector alone. I have also attached a small brief² by my former workmate at the World Bank, just in case it has any useful information", he said.

² The brief referred to is reproduced as appendix 3

One of the other urgent issues Mr. Kamau has been dealing with is a review of the loan processes. On average, it takes about four months for a loan of more than USD 200,000 to be approved. This is because the board of directors must sanction the transaction, yet the board only meets once a quarter and sometimes once in six months! This process is quite long compared to commercial banks that can extend loans of similar amounts or even bigger within 10 working days. The new CEO, therefore, believes that review of the loan processing cycle could generate some efficiency that would ultimately improve the operations of the institution.

The other area of concern in the business process relates to the absence of input from the risk management department during loan appraisal. A risk assessment is done by the relationship managers, but there is no independent review, neither is there independent review of the project proposals. Relationship managers are also in charge of loan monitoring and project implementation.

The performance management tool in use has also been noted as a potential source of weakness. The bank has in place a performance-based scheme under which relationship managers were only assessed based on volumes disbursed. Bonuses were paid out to relationship managers who disbursed loans in excess of their targets. This is a performance-based reward system that applied to the operations department and senior management. Consequently, it was not clear whether this considered the extent of detail that the relationship managers went through during loan appraisal. One wonders whether this had any relationship with the quality of projects the bank financed in the past, particularly the bad ones.

The above credit risk management issues aside, scope of work for the risk department is also quite narrow. The department is fully occupied in managing credit risk with no attention paid to other potential risks that the institution may be facing.

As part of the turnaround efforts, a brainstorming session was arranged with heads of department together with middle level managers so as to assess the bank's present strategic position. Unfortunately, the discussions were not minuted!

Governance at PDB

The Bank is headed by a board of directors who are mainly retired politicians, as well as a few active businessmen (private sector representatives). The board comprises of 18 members, with 10 members constituting a quorum. Because of this requirement, it is sometimes difficult to convene board meetings, and often the meetings are rushed since the board members have busy schedules. In fact some very good business prospects have been lost owing to the failure to convene a board meeting with a quorum to approve the loans.

All the 18 board members sit on the audit committee, which, just like the full board has faced challenges in meeting regularly to consider the business at hand. The committee has for instance failed to meet and interview candidates for a vacant position for head of audit. Meetings have been postponed thrice due to lack of quorum. This position was elevated to head of department level, after the resignation of the internal audit manager who was a grade three manager. In his resignation, he sighted absence of support from the audit committee, and absence of respect from the former CEO (Mr. Agenze Alfred) as the main reasons why he left the institution. The new head of audit is expected to report to the CEO both functionally and administratively.

The Finance Department

The finance function currently comprises of two units; accounts and information technology (IT). The IT unit is headed by the IT manager, and accounts by a finance manager. Both report to the head of finance. The main challenges the department has faced relate to management information availability. Between 2003 and 2005 the bank implemented an integrated IT project that was meant to ease information processing. The system comprised of a human resource and administration module meant to facilitate payroll processing, management of staff bio data, management of staff training information, etc. It also comprised of a subsidiary ledger meant to manage the loans extended to clients, a treasury module for facilitating treasury operations and a general ledger component for financial reporting. About USD 1,100,000 was paid for the cost, customisation, installation and initial staff training.

In spite of the above, IT efficiency remains a big challenge for the bank. Invoicing of clients has become a nightmare, with reports that some clients have previously been sent wrong invoices. The finance manager attributes this to the data uploaded into the new system, with reports that inaccurate information was uploaded into the system. Unfortunately, the old system that had been previously in use was already de-commissioned. One cannot therefore be sure

whether all the clients' loan balances are accurate. There are no formal procedures regarding decommissioning of systems.

No periodic management information is generated because the system can neither generate budget variance reports, nor produce financial performance results by cost centre. Owing to system malfunctions, there are delays in posting transactions into the system, which delays have even affected the bank and loan reconciliation exercises. Clearly there are indications that the system may not have been implemented properly since there was no formal testing prior to commissioning. Available information also suggests that sign-off was done long before the commissioning date. Available documents show that the former head of finance, Mr. Mohammed Kibuuka signed the test certificate.

Regarding the human resource module, several staff complaints have often been logged with missing names on the payroll, unremitted salaries and over deductions for salary loans. Ironically, most of these control weaknesses have variously been pointed out by the internal audit team, even though nobody took them seriously. The latest follow-up of internal audit recommendations presented to the board audit committee shows that there are over 100 outstanding audit issues some of which are more than 390 days past the implementation deadlines.

Human Resource and Administration Department

The Human resource and administration department is headed by a human resource manager. This department has faced a lot of criticism from staff regarding the selective application of policies. Things like staff loans, promotions and salary reviews have all been variously questioned.

The other thing that cannot be missed is the failed performance management instrument. An estimated USD 150,000 was paid to a renown management consultant (Kaplan of the famous balanced score card (BSC)) to implement this performance management tool. Unfortunately, the project sponsor (former CEO) left in the year when the project was earmarked to take-off. Currently staff do not have performance targets, nor is the basis of performance appraisal known. A number of staff were recently recruited, but it is unclear what their job roles are. What is clear though, is the fact that relationship managers have been previously appraised based only on total loans given out. Bonuses were paid out to those who exceeded their disbursement targets.

Funding Constraints

PDB is facing serious funding difficulties. At the moment, only four lines of credit are available, with some of the lenders having withdrawn the availability of their lines of credit, pending some major positive improvements in the operations of the bank. With markets in Europe and the USA not fully recovered from the impact of the credit crunch of 2008/2009, funding problems are anticipated to continue, with the available funds being priced highly.

At the bank, these funding challenges are not disclosed to clients. This may be seen as an attempt to counter negative press coverage about the institution, but it may be counter productive. One such client signed the initial indicative term sheet, and the bank commenced his appraisal. Much later when the loan was due for consideration by the credit committee, the client was told that the bank is unable to fund his business due to shortage of funds. This client has sued the bank for damages. Another case relates to a milk processor, who fortunately decided not to sue, for as long as the bank refunded all costs incurred in putting together the project write-up. All this is happening against the backdrop of challenges of a shrinking portfolio at the bank.

Corporate bonds had been considered as an alternative source of local currency finance but the idea was later dropped owing to the prevailing market conditions. Interest rates have significantly come down in African economies as the central banks attempt to stimulate economic growth through private sector credit. In Uganda, for example, market rates³ had fallen to 3.57% for the 91 day treasury bills, 12.26% for a 2 year bond and 11.35% for a 3 year bond. This is as opposed to 5.3% for the 91 day treasury bills, 16% for the 2 year bond and 12% for the 3 year bond three years earlier. Such conditions, it was argued, were bound to make the issue of bonds unattractive. An undersubscribed bond would send a very negative image, it was concluded.

The Board Meeting

A recent board meeting was held and the main agenda item was the approval of the draft financial statements for the year ended 31 December 2009. The draft financial statements were, however, not approved owing to the disagreements that arose during the meeting, as well as management's failure to provide answers to some of the questions raised by the board. The minutes of the board meeting are still being compiled, but should be ready by 12.30 p.m. today.

³ Source: Bank of Uganda Financial News Report, 10-March-2010

Appendix 1

Extracts From the Financial Statements for the Past 5 Years

	2009	2008	2007	2006	2005
	DRAFT				
	USD '000'	USD '000'	USD '000'	USD '000'	USD '000'
Loans to clients	637,000	512,996	456,711	400,987	430,211
Other investments	191,000	136,091	135,271	120,456	100,003
Property, plant and equipment	6,595	7,006	7,436	7,215	8,013
Due to lenders	465,067	317,344	317,344	245,637	230,061
Ordinary share capital	155,696,	155,696	155,696	100,365	100,365
Reserves	277,181	266,193	248,210	241,500	226,500
Interest income	19,890	18,886	22,835	28,069	30,023
Other income	3,138	3,015	2,598	2,684	2,015
Interest expense	17,128	14,567	16,546	4,839	4,555
General administration costs	14,320	12,501	11,979	11,036	10,600
Net profit/(loss)	(8,420)	(5,167)	(3,092)	14,878	16,883

Appendix 2

Customer Care Concerns in the Banking Industry.

With fully fledged liberal economies where competition for the best services should be the norm, the banking industry in the mzanzi region has been found guilty of offering much less to their clientele in terms of customer care services. Results from a bank customer satisfaction survey showed that most banks are guilty of poor customer care. This is in stark contrast with the banks' corporate image.

The survey revealed that customer care services is an area that is mostly neglected by the majority of banks in the region and as a result customers get mixed-up and do not know where to get particular services within the banking hall. "Walk into any bank and chances are you'll be lost for direction," the report reads, adding "although all banks have at least one person directing customers, most banks do not have clear directional signage for where to get which service."

It was also noted that the customer waiting times are long, averaging 30 minutes for walk-in clients. There were cases where customer complaints had not been addressed for weeks, cases of over deductions in loan repayments as well as being overcharged. The overcharge cases were particularly noted in development banks.

The other common complaint specifically about development banks was the long business turnaround time. Customers claim that a loan application submitted in January may only be approved four months later after some high level meetings, which were claimed to be held only once a quarter.

On the brighter side, however, most customers are happy with the increased automation in the industry. Almost all banks have embraced information technology, and their customers are deeply satisfied, with the ATM service, account opening process and the banking environment.

Source: Mzanzi Business Journal.

Appendix 3

World Bank Advises on African Investment

The World Bank has advised investors to engage the African continent so as to exploit its various investment opportunities. Ms Obiageli Ezekwesili, the World Bank - Africa Vice President, said the continent is endowed with resources, which remain redundant due to low levels of technology and capital. Speaking to business executives and students in New York recently, Ms Ezekwesili said global investors must look to the continent for capitalization and business profit growth.

The World Bank, one of the biggest funders of African growth, has invested over USD 60 billion in the development of information communications technology to ease communication. She said the investment has caused a visible revolution on the continent, which acts as a guarantor to what is possible in other sectors. The emergence of a knowledge economy driven by innovation, education and technology has offset growth casting new hope on Africa's economic transformation - which had for years been built on a peasantry backbone.

Technological Transfer

Africa's development has taken a totally different paradigm, on account of the technological transfer and improvement, which for that case lines a chain of possibilities within other sectors. Ms Ezekwesili said the mobile telecommunications era has transformed farming, helping farmers access markets and information, which as a result has boosted business operations and income development.

As Africa rebounds from the economic crisis, growth for the year 2010 has been forecast at between 4.4 and 5.2 percent, which indicates a solid recovery. However, the high rate of unemployment and high population growth remain some of the factors affecting the lifestyles of ordinary Africans. Unemployment rises by over 10 percent every year which translates to between 7 or 10 million unemployed youths annually. Africa at least has over 200 million youths who are unemployed. Africa must do more to expand income-generating opportunities in agriculture; to improve education, skills training and the empowerment of women.

Table 1: PVIF- Present Value of Shs 1 Due at the End of n Periods

Period	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	18%	20%
1	0.943	0.935	0.926	0.917	0.909	0.901	0.893	0.885	0.877	0.870	0.862	0.847	0.833
2	0.890	0.873	0.857	0.842	0.826	0.812	0.797	0.783	0.769	0.756	0.743	0.718	0.694
3	0.840	0.816	0.794	0.772	0.751	0.731	0.712	0.693	0.675	0.658	0.641	0.609	0.579
4	0.792	0.763	0.735	0.708	0.683	0.659	0.636	0.613	0.592	0.572	0.552	0.516	0.482
5	0.747	0.713	0.681	0.650	0.621	0.593	0.567	0.543	0.519	0.497	0.476	0.437	0.402
6	0.705	0.666	0.630	0.596	0.564	0.535	0.507	0.480	0.456	0.432	0.410	0.370	0.335
7	0.665	0.623	0.583	0.547	0.513	0.482	0.452	0.425	0.400	0.376	0.354	0.314	0.279
8	0.627	0.582	0.540	0.502	0.467	0.434	0.404	0.376	0.351	0.327	0.305	0.266	0.233
9	0.592	0.544	0.500	0.460	0.424	0.391	0.361	0.333	0.308	0.284	0.263	0.225	0.194
10	0.558	0.508	0.463	0.422	0.386	0.352	0.322	0.295	0.270	0.247	0.227	0.191	0.162
11	0.527	0.475	0.429	0.388	0.350	0.317	0.287	0.261	0.237	0.215	0.195	0.162	0.135
12	0.497	0.444	0.397	0.356	0.319	0.286	0.257	0.231	0.208	0.187	0.168	0.137	0.112
13	0.469	0.415	0.368	0.326	0.290	0.258	0.229	0.204	0.182	0.163	0.145	0.116	0.093
14	0.442	0.388	0.340	0.299	0.263	0.232	0.205	0.181	0.160	0.141	0.125	0.099	0.078
15	0.417	0.362	0.315	0.275	0.239	0.209	0.183	0.160	0.140	0.123	0.108	0.084	0.065

TABLE 2: PVAF - Present Value of an Annuity of Shs 1 per Period for n Periods

Period	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	18%	20%
1	0.943	0.935	0.926	0.917	0.909	0.901	0.893	0.885	0.877	0.870	0.862	0.847	0.833
2	1.833	1.808	1.783	1.759	1.736	1.713	1.690	1.668	1.647	1.626	1.605	1.566	1.528
3	2.673	2.624	2.577	2.531	2.487	2.444	2.402	2.361	2.322	2.283	2.246	2.174	2.106
4	3.465	3.387	3.312	3.240	3.170	3.102	3.037	2.974	2.914	2.855	2.798	2.690	2.589
5	4.212	4.100	3.993	3.890	3.791	3.696	3.605	3.517	3.433	3.352	3.274	3.127	2.991
6	4.917	4.767	4.623	4.486	4.355	4.231	4.111	3.998	3.889	3.784	3.685	3.498	3.326
7	5.582	5.389	5.206	5.033	4.868	4.712	4.564	4.423	4.288	4.160	4.039	3.812	3.605
8	6.210	5.971	5.747	5.535	5.335	5.146	4.968	4.799	4.639	4.487	4.344	4.078	3.837
9	6.802	6.515	6.247	5.995	5.759	5.537	5.328	5.132	4.946	4.772	4.607	4.303	4.031
10	7.360	7.024	6.710	6.418	6.145	5.889	5.650	5.426	5.216	5.019	4.833	4.494	4.192
11	7.887	7.499	7.139	6.805	6.495	6.207	5.938	5.687	5.453	5.234	5.029	4.656	4.327
12	8.384	7.943	7.536	7.161	6.814	6.492	6.194	5.918	5.660	5.421	5.197	4.793	4.439
13	8.853	8.358	7.904	7.487	7.103	6.750	6.424	6.122	5.842	5.583	5.342	4.910	4.533
14	9.295	8.745	8.244	7.786	7.367	6.982	6.628	6.302	6.002	5.724	5.468	5.008	4.611
15	9.712	9.108	8.559	8.061	7.606	7.191	6.811	6.462	6.142	5.847	5.575	5.092	4.675