MICROENTERPRISE INNOVATION PROJECT (MICROSERVE)

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ASSESSMENT OF THE CAISSE D'EPARGNE DE MADAGASCAR

Delivery Order No. 803

by
Peter Hanney
Judith Beckwith

Submitted to
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Chemonics International Inc.

with
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EXECUTIVE SUMMARY

The Caisse d'Epargne de Madagascar (CEM), is the only nationwide savings bank operating in Madagascar. It was created in 1917 as a division of the Madagascar Post Office, and the two operations remained integrated until 1985, when CEM attained some autonomy. The 1985 law required that CEM establish its own board of directors and internal operating procedures. CEM at that time had an aggregate savings balance of about Francs Malgaches (FMG) 5.7 billion.

Since 1993, CEM has been a major beneficiary of USAID's Madagascar Financial Market Development Program, which has delivered more than $1 million in technical assistance and equipment to Madagascar's savings operations. USAID support has helped strengthen CEM and has resulted in the development of an important savings franchise that has witnessed growth in deposits from 17 billion FMG in 1993 to an estimated FMG 120 billion at the end of the first quarter of 1999.

This growth occurred despite restrictions that were imposed on CEM by the 1985 decree. One interpretation of the decree deprives CEM of any discretion it has over where it places its funds, which are all invested with the Central Bank of Madagascar on an account with the National Treasury. But contradictory words in the decree permit CEM to undertake a wide variety of financial transactions, including making loans, but CEM has not taken advantage of this opportunity and has, instead, directed its efforts to the substitute legal framework that was embraced in a 1995 decree. The 1995 law was designed to facilitate CEM's transition from a wholly public-sector-owned enterprise into a limited liability company. Although the 1995 law allows CEM to undertake lending operations, it cannot do so until it receives approval from the banking supervision department of the Central Bank of Madagascar.

The Malagasy Government realized it needed to create employment and alleviate poverty, so it agreed with USAID to strengthen CEM's structure, in preparation for lending activity that, over time, could lead to CEM's privatization. Because CEM had already taken some steps to institutionalize, USAID was prompted to sponsor an assessment of CEM's strengths and weaknesses in an effort to determine its short-term, medium-term, and long-term needs; and to define remedies for its deficiencies and identify a variety of other options.

This assessment includes an evaluation of the needs of the market and activities of the competition, and identifies the best framework to invest depositors' funds in the microenterprise sector.

Introduction

The objective of USAID's work in Madagascar is poverty reduction and its Special Program Objective is to improve the trade and investment environment. Thus, USAID is focusing some of its efforts on strengthening Madagascar's financial infrastructure and expanding access to financial services for small-scale economic agents. This focus has been reflected in the Financial Markets Development (FMD) Project. The Mission is now assessing the results of FMD within the Caisse d'Epargne de Madagascar (CEM).

Under the MicroServe indefinite quantity contract, USAID/Madagascar hired Chemonics International to assess CEM's ability to conduct savings mobilization activities in a high-quality, sustainable manner and to expand its financial service offerings over the medium term.[1] The consultants were assigned to analyze the legal framework and institutional environment governing CEM operations; assess the managerial capacity of CEM staff; evaluate CEM's operational effectiveness; recommend actions, policies, and measures to ensure that CEM performs effectively; and identify ways that USAID could continue to support CEM within the Mission's objectives.

Field work was conducted between May 3 and June 11, 1999, by the following individuals:

- Peter Hanney, financial services expert and team leader,
- Robert Hans, financial services expert,
- Pedro Souss, management information specialist,
- Jimmy Ramiandrison financial analyst. and
- Judith Beckwith, financial services expert and MicroServe technical advisor.

A draft report was submitted June 11, 1999. It contains comments made by USAID/Madagascar staff at the final briefing meetings. Chemonics will respond to comments to the draft by both USAID/Madagascar and the CEM, contained in Appendix L, in a separate submission.

The consultants designed the assessment with Mission staff; read appropriate documents and literature; interviewed senior Madagascar government officials from the Ministry of Finance, the Post Office, the Central Bank of Madagascar, and the Banking and Finance Supervision Commission (CSBF). They also met with multilateral donors, officers of the International Monetary Fund; commercial bankers, and other individuals who work in microfinance and microenterprise development in Madagascar, and had lengthy meetings with CEM senior managers.

The team reviewed the laws that regulate the banking sector and those that directed CEM's transition from an adjunct of the post office to a Société Anonyme. The consultants examined CEM's financial systems, processes, and controls and compared their findings with banking industry standards for financial management and internal control systems. Financial statements

[1] From its inception in 1918 until Decree 85/602 was passed in 1985, the Caisse d'Epargne was called the CEM. The decree transformed CEM into an *etablissement public à caractère industriel et commercial*, or EPIC-CEM. In 1995. Law 95/019 transformed EPIC-CEM into a *Société Anonyme,* or SA CEM. According to the CSBF, CEM is still an EPIC-CEM. This report uses CEM except when a particular legal status is referred to.

and income accounts were compiled from company records and, to the extent possible, were reconciled on an accrual basis.

In this report, microenterprise is defined as an economic activity that involves 10 or fewer employees, a small business is defined as one that employs 10–25 employees. Microfinance and financial services refer to savings and lending services, whereas microcredit refers to lending services alone. The term *small-scale finance* applies to microenterprises and small businesses alike. Small-scale economic agents are small-holding farmers, and owners of microenterprises and small-scale businesses.

As microfinance has developed over the past 20 years, it has been primarily concerned with the poorest of the poor and the informal sector intermediaries that dominate the service providers. This relationship has brought with it some unfortunate consequences. First, the poorest of the poor are just one group among various lower income groups. They do not constitute the entire microenterprise sector nor are they microentrepreneurs by virtue of their poverty. Second, the ongoing focus on the poorest of the poor has worked to the detriment of microenterprise finance. Microentrepreneurs who have the capacity to improve or expand their businesses are routinely neglected by formal financial institutions and, in many cases, informal intermediaries as well. There have been no measurable and systematic studies to show that the poorest of the poor contribute to sustainable economic growth. In fact what often passes for credit is little more than a welfare transfer payment in an amount that is not large enough to be translated into enterprise growth.

Misunderstanding the nature and market potential of microenterprise finance and assigning a social mission to what rightly should be commercial, profit-generating transactions has hindered and perhaps prevented microfinance from becoming a part of routine banking operations. In addition, most regulatory bodies in developing countries do not treat microcredit as a legitimate loan, which means that the best microenterprise loans are considered to be consumer credit loans. Misclassifying microenterprise loans distorts portfolio risk weighting, the calculation of reserve requirements, and loan write-offs.

Until recently, most donors, at the insistence of nongovernmental organizations (NGOs), used noncommercial means of credit distribution as the only ways to serve the microenterprise sector. As a result, financial institutions stayed out of this market entirely because they misunderstood the market and the profit potential of microenterprise finance and the profile of potential microentrepreneurs as borrowers.

It is the opinion of the consultants that microfinance should be treated as a niche market activity by traditional banks. Experience has shown that microfinance can be financially viable, sustainable, and profitable if best practices that are routinely associated with informal microfinance institutions (MFIs) are coupled with sound management, systems and prudential norms. The consultants strongly recommend that financial services be extended to the micro market through regulated and supervised financial intermediaries. Fortunately, important steps have already been taken in Madagascar to make this happen. The consultants hope that CEM and USAID/Madagascar will support these efforts.

Because up-to-date audited financial statements and supporting documents were unavailable, some of the consultants' findings and interpretations are subject to question. But, in their opinion, the main issues have been properly identified, documented, and analyzed. They have made practical recommendations that will facilitate the transformation of CEM into a fully operational financial service intermediary.

The consultants thank the management and senior officers of CEM for their support and assistance for providing office space and for promptly providing documents and data that were needed to understand CEM operations. The team also thanks Mary Norris and Robert Dean of USAID/Madagascar for their generous time.

The opinions contained in this report are those of the consultants. They do not necessarily reflect the opinions of USAID/Madagascar or CEM.

The CEM In Context

A. Overview of the Financial Sector

The Malagasy banking system has undergone a major transformation since a series of nationalizations occurred in the mid 1970s, and over the past decade, Madagascar's economy has become increasingly market oriented. Banks have been privatized and government shareholdings in the banking system are shrinking. Formal financial institutions in Madagascar include the central bank, five private sector commercial banks (three are French owned, two are owned by Mauritians), a state-owned bank (which is being privatized), the state-owned savings institution CEM, three insurance companies (two are state-owned), and four networks of savings and loan associations (SLAs)[1]. Informal financial intermediaries include two donor-supported MFIs and a number of NGOs.[2]

The financial sector in Madagascar is still developing. The banking sector dominates and financial transactions primarily take place among the urban economy and population. Financial instruments are relatively rudimentary and a well organized and active capital market does not yet exist . Demand and supply of financial services are seriously inadequate. Financial institutions are biased toward short-term finance and there is little medium- and long-term debt and equity. Many borrowers have no access to the formal financial system because of their size, the nature of their activities, and their geographic location. Legal and judicial systems are not well developed and contract enforcement is seriously hampered. As a result, many people lack confidence in financial intermediaries, and many still operate on a cash basis outside of the financial system. Suppliers and users of financial services alike lack basic financial information on lending terms, credit risk, and the like.

Financial services generally are insufficient and ineffective for the following reasons:

- Formal financial institutions lend only to well established clients;
- Low-income clients generally lack collateral and are unknown to commercial banks;
- Competition in the financial sector is limited;
- Transaction costs are high and service is inefficient; and
- A credit culture is undeveloped among the population.

[1] In French they are *Mutuelles d'épargne et de crédit*, or MECs. Law 96-020 (9/4/96) was enacted to promote and regulate MECs.

[2] A law regulating the nonmutuelles, including NGOs, has been drafted by CSBF and should be presented for approval in the near future.

B. The Target Market

Most entrepreneurs in Madagascar have small-scale economic activities, their financial requirements are few, and savings capacity is small. Most of them are unincorporated small farmers, tradespeople, and producers. They operate in the informal economy, according to local customs and routines. They share some characteristics, including the following, among others:

- They generally operate family-based, individually owned, unregistered, unlicensed enterprises;
- They do not maintain basic record and account books;
- A large portion of their activities are unmonetized (particularly among small farmers);
- They tend to prefer real assets to financial assets;
- Their financial resources and credit needs are considerably smaller than those of financial institution clients; and
- Financial transactions are generally informal, unorganized, and take on a highly localized form of mutual help between family members and friends.

Although the industry and service sectors account for 68% of Madagascar's GDP, the vast majority of the population is rural (78%) and engaged in agriculture (82%), yet agricultural households received less than 2% of the estimated credit that was extended during the period under review. Ninety-eight percent of the enterprises consist of businesses that employ five or fewer people.[3]

Small-scale finance programs targeted at rural people have been, for the most part, unsuccessful. To see why this is so, one need only consider the sheer size of the country, the variety of its climate, the absence of a good communications network, and its dilapidated infrastructure. CEM undoubtedly services the requirements of small-scale economic agents in the lower income groups through its post office network. Indeed CEM's primary strength is its savings mobilization capacity. CEM has more than 450,000 clients, but large deposits account for only 10% of its assets. CEM has not developed a strategic marketing plan on the basis of a well defined target clientele.

[3]These figures suggest that a great potential exists for small-scale finance, but not all small-scale economic agents will require or request savings facilities and credit. This point is discussed further in Section IV.

C. Table 1 Madagascar: Basic Facts and Figures

Gross Domestic Product (GDP) US$ 3.6 billion

Structure of Economic Output

- agriculture/primary activities 32% of GDP
- industry 13% of GDP
- services 55% of GDP

Estimated Population 1997 13,500,000

- Men 49.8%
- Women 50.2%
- Rural 78%
- Urban 22%

Age of Population

- < 15 years of age 44.5%
- 15–64 years of age 52.3%
- > 64 years of age 3.2%

Economically Active Population 54% of total

Active Population >15 years of age 50% of total

Average family size 4.9 persons

Number of Households 2,750,000

- Rural 77%
- Urban 23%

Percentage of population in agriculture 82%

- Residing in rural areas 90%
- Agricultural households receiving credit <2%

Nonagricultural enterprises

- Single owner 67%
- 2–5 people 31%
- 6–10 people 1.4%
- >10 people 0.6%

Nonagricultural enterprises receiving credit <5%

- From banks <3%
- From family and friends 70%
- From owner 17%

SECTION III

The Caisse d'Epargne de Madagascar

A. Institutional Arrangements

CEM was founded in 1917 as a division of the Madagascar Post Office to serve as a national savings bank. It has since evolved into a major savings institution. Today, CEM is positioned to transform itself into a full-service commercial bank after it has complied with the regulatory formalities that govern the award of bank licenses.

A1. The Legal and Regulatory Framework Governing CEM

Three laws and one decree have had important implications on CEM's current legal status:

Decree 85/601, dated 6 March, 1985,

Law 95/019, dated 25 July, 1995,

Law 95/030, dated 7 September, 1995, and

Law 96/020, dated 4 September, 1996.

Decree 85/601 made the savings bank (caisse) a semiautonomous public enterprise of industrial and commercial character (EPIC). Under the terms of the decree, responsibility for caisse operations were to be shared between the Ministry of Finance (financial management and administration) and the Ministry of Post and Telecommunications (procedural matters). Although the decree granted the EPIC caisse authority to apply up to 50% of its deposit base and social fund reserves to specific investment and financing activities,[1] the caisse never exercised that right. The decree required that the caisse place depositors' funds in a treasury account maintained by the Central Bank. Interest was to be paid on funds in an amount determined by the minister of finance.

Law 95/019 transformed the caisse from an EPIC into a Société Anonyme (SA), or stock corporation, and renamed it "Caisse d'Epargne de Madagascar, SA," or CEM. CEM immediately became subject to the law that regulates SAs as well as the revised Banking Law, 95/030, which was approved shortly thereafter.

Article 3 of Law 95/019 made CEM responsible for contributing to the economic and social development of small and medium-size enterprises and for providing financial services to them. The article noted that CEM was to mobilize savings; provide short-, medium-, and long-term

[1] Such as lending for construction and housing, investment in state-owned companies, buying stock in financial institutions, and financing other operations of an economic or social nature (Article 22).

financial institution from the CSBF and was in conformity with the terms and conditions of the Banking Law.

Article 6 of Law 95/019 established the capital base for CEM at FMG 1.2 billion, which was to be divided into 120,000 shares of stock valued at FMG 10,000 per share. The government assigned itself 100,000 shares, or an ownership stake of 83.4%, and left 16.6% of the shares to be sold at a public offering. The article stated that a portion of the government's shares would come from the social fund reserves, which were established under Decree 85/601 and valued as of December 31, 1994. Any funds in the reserve that were not used as share capital were to be credited to the government's current account. The article also called for the preparation of a provisional agreement that would specify this arrangement and for submission of the agreement to the constituent assembly for its approval.

Article 14 of the law called for a 10-person board of directors. As long as the government held 50% of the shares in CEM, five board members would represent specific ministries; one each would represent the general assembly of shareholders, the national assembly, and the senate; and two were to be selected by the other eight board members. When the government's ownership falls below 50% of the share capital, the size of the board is to be modified and may range from 3 to 12 members, who are to be chosen by the general stockholders. Additional clauses in Article 14 authorize the board to act in the name of CEM and to determine CEM's policies, management routines, and administrative guidelines; to sign the contrat-programme[2] with the government; and to name a board president, who assumes responsibility for CEM management. The article also allows the board to appoint a director general, whose job is determined by the board. The director general cannot be a board member.

Article 37 made CEM subject to the control of the Commission de Contrôle des Banques et des Etablissements Financiers (Committee for the Control of Banks and Financial Entities or CCBEF).[3]

Article 39 called for the government and CEM to draw up a contrat-programme to define the reciprocal rights and obligations of each, the mechanism for savings collection, the payment and reimbursement systems, the amount of funds to deposit in the Treasury as a counterpart to the government's guarantee on deposits, the conditions and mechanisms for withdrawals by CEM, and the taxation of funds deposited in CEM.

Article 40 severed the relationship between EPIC-CEM and the post office but called for a protocol agreement to be drawn up between the new SA CEM and the post office, which would define payments for services rendered post office windows. The law also said that SA CEM could work through other intermediaries to conduct its savings mobilization transactions.

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[2] *Contrat-programme* does not have an English translation. We used *agreement* in this report, but that does not adequately capture the formality that is implied in the French phrase.

[3] Law 95/030 replaced the CCBEF with the *Commission de Supervision Bancaire and Financière,* or CSBF.

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Article 44 prohibited the EPIC caisse from being transformed into the SA CEM until it had complied with all the formalities required under Law 95/019. These included, among other things, a provisional agreement on the registration of government shares, publication of a notice of a public offering of 20,000 shares of stock, that the first stockholders' meeting would recognize the subscription and transfer of stock had been paid within six months of registration, and that the statutes of CEM had to be approved at the second stockholders meeting.

Article 46 required CEM to meet the requirements of the Banking Law (95/030) before securing CSBF authorization to operate as a full-service financial institution within a period of no more than four years.

A revised Banking Law (Law 95/030) passed in September 1995 identified five types of financial intermediaries that come under the purview of CSBF. It is unclear whether CEM must operate as one of these intermediaries, but it is clear that CEM must receive CSBF authorization to operate as a full-service financial institution before commencing operations.

Law 96/020[4] detailed how the Banking Law applies to the activities of cooperatives,[5] taking their ownership structure into account. Law 96/020 permits CSBF to grant a collective license to cooperatives that are joined in a federation. The license is valid for the central agency and the individual associate members. The central agency must be responsible for discipline within the network and serves as the point of contact with CSBF on monetary regulations and prudential norms. The law says that an internal audit committee can perform the function of external auditors.

A2. Status of Legislative Enactments

CEM is a public enterprise of EPIC, although there is disagreement on this point. Although the legal framework to establish CEM has been in place for nearly four years, Law 95/019 has not been formalized and enacted. According to CEM's managing director, critical issues must be resolved before it can complete the transition from an EPIC CEM to an SA CEM. The most important of these have to do with the composition of the board of directors, reconciliation of differences on the value of the social reserve fund, an outstanding CEM obligation to the government, and the terms of the contrat-programme.

Law 95/019 stipulates that 80% of the 10-person board of directors has to be government officials and 20% has to be selected by stockholders, the majority of whom would represent the

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[4] Law 96/020 is referred to in the consultants' recommendations for future CEM activities.

[5] *Cooperative* is used broadly. It covers any institution that operates in the *sector mutualiste* (cooperative sector).

member having expertise in banking and finance). Although this arrangement does not reduce the overwhelming presence of government officials on the CEM board, the proposal would more appropriately reflect private sector ownership.

Major differences in the value and ownership of the social reserve fund must be reconciled before Law 95/019 can be enacted. (Refer to the de Maynadier report for a detailed explanation of the problem[6].) In May 1997, the director general of CEM requested a revision of the calculations contained in the provisional agreement (which was dated 26 March 1997 and was prepared by the Ministry of Finance and signed by both ministry and CEM authorities). Without resolving the differences, CEM cannot proceed with the sale of stock. Now, two years after CEM's request to the Ministry of Finance to do so, there has been no progress and the problem represents a major obstacle to enacting Law 95/019.

CEM is also requesting that Article 39 of Law 95/019 be amended to void the contrat-programme with the government once CEM is authorized to operate as a financial institution.

The valuation of the initial shares remains a problem. In the absence of a point of reference, the CEM managing director is not certain that it is appropriate to price each share at FMG 10,000 and had indicated his desire to receive some assistance with this issue.

CEM cannot complete the formalities required to operate as a Société Anonyme and begin the four-year transition period of becoming a full-service financial intermediary. It is the opinion of the consultants that none of the recommendations in this report can or should be implemented, nor should the period of transition begin until all outstanding differences between CEM and the government are resolved and all ambiguities in Law 95/019 are clarified.

A3. Current CEM Network

The CEM network currently consists of five agencies: two in Antananarivo; and one each in Tamatave, Fianarantsoa, and Majunga. Management has plans to open three new agencies during 1999 in Antsirabe, Antsiranana, and Toliara. CEM also mobilizes savings through some 270 post offices and satellite branches.

Until recently, CEM's service offerings were limited to accepting savings deposits and transferring funds between its agencies and branches of the Madagascar Post Office. CEM recently expanded the scope of its funds transfer services when it signed an agreement with Western Union and acquired a funds transfer franchise that has a worldwide network. This service captures a substantial volume of remittances transferred by Malagasy citizens to family members throughout the country.

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[6] *Un Compte Rendu sur le Status de La Société Anonyme Caisse d'Epargne de Madagascar.* Alain de Maynadier, Eccles Associates, May 1997.

service captures a substantial volume of remittances transferred by Malagasy citizens to family members throughout the country.

B. Management

B1. Governance

Findings. When Law 95-019 is operational it will establish CEM as an SA and will be headed by a 10-person board of governors who will represent the ministries of Agriculture, Finance and Budget (two governors), Industrial Promotion and Arts and Crafts, the Central Bank of Madagascar, the General Assembly, the National Assembly, the Senate; and shareholders (two governors).

This not the current profile of the CEM board. The 1985 decree establishing the EPIC-CEM still prevails and the existing board has 10 senior ministers and agency heads in addition to 8 representatives of CEM's savings customers who are recommended by CEM's managing director and are approved by the Minister of Post and Telecommunications.[7]

The board has met only three times since 1993. The last meeting took place in March 1997. The chairman is also the secretary general of the Ministry of Finance, which, in the opinion of the consultants, creates a conflict of interest. It appears that the managing director and the secretary general have frequent informal meetings. The board chairman provides guidance on strategic issues. It appears that the full board is not involved in making decisions that affect CEM.

An organizational chart of CEM operations appears in Appendix A, at the end of this section. Although the chart has never been approved by the board, it is satisfactory for CEM operations, except for the lack of an audit manager and board-appointed oversight committees.

The external auditor submits audited financial statements to the board. The last statements were dated June 1998 and reflected CEM's financial position as of September 30, 1997. These are the only reports submitted to the board because the external auditor is the only person who closes the books during a 12-month accounting cycle.[8] Once an audit committee is established and the board appoints the committee's members, the external auditor should report to the audit committee, and the committee in turn would report to the board.

Conclusions and recommendations. Without a board of directors it is not possible to examine the issue of good governance. The consultants strongly advise that steps be taken as quickly as possible to establish a well balanced, well functioning board of directors in keeping with the

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[7] The government made a commitment to USAID to change the board composition in 1993. It is not known why the board composition has not yet been changed.

[8] CEM's accounting department does not balance the general ledger and therefore is unable to generate financial statements. CEM's inability to balance the daily general ledger should theoretically resolve itself when it redefines its boundaries with the Post Office.

B2. Management

CEM's day to day management is centralized at the head office. The managing director approves all projects and expenditures and has some signing authority. Although it is not documented, the finance director is the de facto deputy to the managing director. Other division heads report to the managing director but they have no formal delegated authority. Agency managers report to the director of the commercial division. An administrative officer and a group of tellers, divided between receiving and paying tellers, normally support agency managers.

The organizational chart does not show the position of the *agent comptable*, who reports to the managing director and is required to cosign for all expenses, disbursements, checks, and any other documents that require two signatures. The consultants were told that this position would be redundant under the 1995 law and that the finance department should perform the work of *the agent comptable*. Signing authority requires that either the managing director or the financial director remain in the office with the *agent comptable* at all times. It also means that if an agency has no available preapproved funds, it is unable to incur expenses without approval of the head office. Overall, the system is inefficient.

The finance department, which is located in the head office, is responsible for account reconciliation, budget formulation and management, the costing of services, and procurement. Serious weaknesses exist in this department. According to CEM's organizational chart, the department is also responsible for treasury and asset liability management. The department's routine activities do not conform to industry standards for a financial institution. In particular, cash flow management is ad hoc and has resulted in a serious underutilization of cash balances. There is no asset liability gap management per se.

Budgets are developed by the finance director on the basis of historical performance and costs. Agency managers are not involved in the budget exercise. Records are not maintained on an agency cost basis nor is management able to monitor the performance of individual units. Projects and capital investments are undertaken without the benefit of feasibility studies or financial plans. This approach does not permit meaningful budget-to-actual performance monitoring and expenditure control. In addition, the board of directors does not approve annual budgets.

The administration department is responsible for all nonmanagement personnel and general services. There is no centralized personnel management function and files are split between the head office and the administration department.

B3. Human Resources

The management team is composed of long-term employees who graduated from the state-owned post office. Their technical skills, acquired on the job and through participation in various training programs, are not fully adequate for the major procedural and technical changes that will be introduced if the recommendations in this report are implemented.

training programs, are not fully adequate for the major procedural and technical changes that will be introduced if the recommendations in this report are implemented.

According to a Convention Collective in 1997, staff compensation is based on a collective contract signed between staff members and management. Salary increases are across the board adjustments based on CEM's profitability. Details of the formula are not known nor are there in place procedures or a policy for this. No formal performance evaluation system exists. Staff are allocated to 1 of 10 categories and 4 subgroups on the basis of their academic preparation and responsibilities. Salaries are determined on the basis of a set scale with increases awarded annually in accordance with the length of service and time spent in a given category.

Written personnel procedures exist but are incomplete. One particular concern is that of succession. Given the additional demands on management during the transition period, a plan for succession is critical to the personnel policy.

From 1993 until now, the number of staff has increased from 45 to 155. This increase exceeds the deposit growth rate and is attributable to the opening of new branches as well as the transfer to CEM's payroll of staff who previously had been paid by the post office. Most agencies employ 8–15 staff members. CEM should not overlook that expected growth in savings accounts will only be realized if additional staff are employed. Workspace is already a problem at the main agency.

C. Operations

C1. Policies and Procedures

The board's powers and responsibilities of management are set forth in Law 95-019, however, for some activities, the Decree of 1985 is the guiding document. In general, it was observed that operating procedures are not based on any policy guidance that was approved by the board of directors nor is there any assurance that the procedures reflect the board's wishes.

Recommendations contained in the 1997 The Eccles Associate Report, "Financial Reporting and Planning Process," have not been implemented despite technical assistance having been provided to upgrade this activity. CEM has developed operating procedures, exclusive of internal controls, for personnel and payroll, treasury, equipment, automobile use, savings accounts, budget accounting, staff savings accounts, and procurement. Some procedures are well conceptualized, but some lack a clear segregation of duties and dual control over CEM assets.

C2. Cash Control

Dual control is not practiced outside of the main agency, which is located at CEM headquarters. An agency manager who was asked about operating procedures said that he had never seen any. Dual custody of the cash vault at the main agency was observed; however, controls appeared to be weak and responsibility for withdrawals was not defined. No dual control of cash or bank accounts exists at the agencies where the cash vault can be accessed with only one key. No formal cash limits exist for individual tellers or the vault. Withdrawals from the vault are not

under joint custody nor are they registered in the cashbook. Although the amounts of money being handled are relatively small, a system of dual control is required.[9]

The following physical security weaknesses were observed at the Fianarantsoa agency:

- Lack of an alarm system;
- Absence of a closed-circuit TV surveillance system;
- Tellers were not frequently rotated from one teller post to another;
- Surprise cash counts were not part of an established routine of management;
- No formal character background checks were conducted on tellers before they assumed their duties;
- No teller holds "bait-money;" and
- Established policies and procedures do not exist for handling cash.

These weaknesses are not comprehensive; rather, they were obtained through observation and questioning of senior agency staff, and were corroborated by head office staff. Head office managers confirmed that similar security lapses are standard throughout CEM agencies.

C3. Accounting and Bookkeeping

Tellers' cash and agencies' cashbooks are balanced daily. Aggregate receipts and disbursements are recorded directly to a journal that is sent monthly to the head office for posting to the general ledger. Cash and savings account entries are not processed though a central proof-control mechanism. Even though CEM's activities are not particularly complex, the dual control and balancing features required of any financial institution are lacking.

Posting to the general ledger is generally performed on a monthly basis. The accounting department never balances the general ledger; rather, the task is performed by the external auditor, albeit with significant delays. This lack of financial control facilitates asset manipulation that can go unnoticed until the next balancing exercise, which in CEM's case, may be the following year.

The post office manually processes transactions for CEM's savings customers who make their deposits at post office counters. The settlement process is highly inefficient. Transaction entries are registered in a journal, and then totaled and sent to CEM monthly, after which the accounting department registers significant delays in processing the entries. Another checking activity by the post office's clearing office adds several more days to the process. The post office's settlement entries are simultaneously transmitted through the CCP (the post office banking division) to the Treasury for CEM's account.

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[9] In 1998, an agency manager stole the contents of the vault while serving as the sole custodian. Although the manager was arrested, dismissed, and replaced, the "control" system remains unchanged.

A flow chart in Appendix B shows the settlement process for savings transactions. Savers receive no interest for the first 15 days after making a deposit. Staggering of interest posting is intended to compensate for the delayed settlement process even though in practice, the settlement date for most transactions frequently exceeds 15 days. To cite an example, CEM received a check from a post office branch in mid May 1999 for 1.3 million FMG, which corresponded to deposits that had been received during October 1998. The primary cause for delays in settling savings transactions is clerical. Preparation and control functions are handled manually, and there is no requirement to ensure that work orders are processed the same day. Automated processing would theoretically facilitate daily settlement. Some savings counters are computerized, and their linkup to CEM's systems could facilitate same-day processing of the corresponding accounting entries.

The protracted process for settling transactions exacerbates the problem of account reconciliation and distorts the calculation of payable interest. The accounting, legal, and physical boundaries between the post office and CEM should be clearly defined. These delays in accounting for interest distort CEM's financial accounting and explain the difficulty CEM encounters in determining its depositor liability until many months after deposits have been made. Added to the lack of a disciplined reconciliation of accounts means that figures, account balances, and the value of asset line items are open to manipulation.

CEM's account with the Treasury is fed by checks drawn on the CCP. Withdrawals are handled in reverse, when the Treasury sends CEM checks drawn on the Treasury Account with the Madagascar Central Bank. Accounting delays make reconciliation of CEM's account with the Treasury account difficult, at best. At year end 1998, for example, the Treasury showed FMG 25 billion more in its account for CEM than was registered on CEM's books, a difference reflected in our financial statements as savings transactions in transit, which is an unreconcilable item. Given the absence of suitable controls, the delays in booking deposit transactions, and the triangular arrangement for transferring and booking transaction data, it is no wonder that the Treasury account balances shown in the CEM general ledger do not reconcile with those of the finance ministry. To make matters worse, the Treasury does not issue statements on CEM's accounts; which makes it difficult to reconcile interest due amounts. Changes in the interest rates paid on Treasury Bills are not advised on a timely basis and the actual payment of interest on the account is delayed. Interest due from the Treasury in 1998 for example, is scheduled for payment in mid June 1999, at the earliest.

No written contract for interest due exists between CEM and its savers. Interest is calculated annually up to the end of the calendar year. Customers who close their accounts must wait six months after the end of the year in which the interest was earned before receiving it. This practice reduces the real return to depositors and deprives small savers of the compounding affect of interest due.

Term deposits that earn high interest rates and that mature during the year, however, pay interest at maturity. This practice is inconsistent with the way regular savings accounts holders are treated. Moreover, large accounts are paid up to double the market rate. This practice prejudices CEM's interest margins and return on equity. In addition, large-account holders rarely demonstrate loyalty when rates go against them and unexpected withdrawals could destabilize expected cash flow.

Another cumbersome process is the updating of interest to savers' passbooks. Because only the head office can post interest to passbooks, once a year, customers have to hand in their passbooks while they are forwarded to the head office.

The post office is reportedly capable of making electronic fund transfers between its own bureaus. The system could be used to expedite transactions handled for CEM, but costly processing has been cited as the main disincentive for this.. With the advent of electronic transfers between computer terminals, transaction costs should be minimal and insignificant when weighed against the benefit of having CEM's savings ledger balanced daily. The post office and Treasury should also benefit from this daily cleanup of accounting records.

CEM's accounting practice is based on a mixture of cash accounting and accrual accounting methods. This gives rise to inconsistencies and the inability to produce accurate financial statements. Audited statements compiled by two different auditing firms as of September 30, 1997 contained unexplained differences and amounts for the same line items because there was a lack of integrity in the figures being examined. If CEM were to become a bank, the Central Bank of Madagascar will require that CEM adopt at least the Madagascar chart of accounts and accounting standards for its monthly reporting. Although these standards are not in total compliance with international accounting standards, they do give clear and consistent advice on the treatment of accruals.

CEM's accounting system is unable to generate reliable data on the cost of individual services or even the cost of doing business. The financial performance of individual agencies is also undeterminable. The accounting system should be revamped to facilitate the development of cost centers and costing of new services before they are introduced. The internal control and financial management supplement shown in Appendix K should be adopted.

C4. CEM–Post Office Relations

CEM has five agencies and plans to open three additional ones over the next year, all of which are expected to be on line with the network and should significantly strengthen CEM's coverage in the main cities. CEM also has franchised representation in 165 post offices. Adding in the CEM presence in part-time satellite post offices, CEM has a presence in approximate 270 post office counters. In the future, some communities may be difficult to serve because of poor infrastructure and telecommunications linkages. Integrating all branches could be nonviable from a cost/benefit point of view, which will frustrate efforts to integrate all post office branches into the CEM network.

The 17 computers operated by the post office are the property of CEM, and were provided by a donor. Unfortunately, several of them do not work because they have not been maintained, computers at two branches are unusable because they do not have dedicated telephone lines, the only person at one branch who had computer knowledge was transferred and not replaced, and it is difficult to maintain them because so many post offices are remote. The only viable solution to these problems is that either CEM or the post office acquire ownership in the computerized network, the post office could buy its own computers and operate them for CEM customers under a service contract; or the CEM could lease and staff savings counters at designated post

offices and, at the same time, install and operate its own computer equipment. Under either option, operating these counters would have to be cost-effective and allow CEM to maintain its up-to-date accounting records, regardless of the location of the service within the post office/CEM network. A clear operating boundary for such a network and a determination of which post office branches are to be computerized must be made. CEM needs the online capacity of the post office to serve its customers. Any physical segregation of post office branches from the CEM on-line network would not prejudice CEM's customers.

C5. Recommendations

The weaknesses and deficiencies in governance, management, and operations are not exclusive. They represent only a sample of the institution's policies, procedures, administration, and systems that must be improved.

The guidelines in Appendix K mirror those recently released by the Organization for Economic Cooperation and Development and contain a comprehensive framework for institutional strengthening. Thus, the guidelines reflect the recommendations that the consultants would make. CEM should study the document, set priorities, formulate an action plan, and secure the approval of the board of directors to proceed with the all important task of upgrading its operations.

D. Management Information Systems

This section contains recommendations for improving policy, management processes and procedures, equipment, and software enhancements that will provide CEM with the information technology (IT) framework and infrastructure it requires to support its operations in the next two or three years.

A management information system (MIS) is a set of integrated technology through which accurate and timely data are merged to produce information for decision makers. The decision makers must have a clear idea of the kind of information they need and how they will incorporate it into the decision-making process. A good MIS will reduce the risk of erroneous business decisions.

This analysis concentrates on technology needs (i.e., the software, hardware, and organization of information technology). A longer-term analysis is impractical because IT quickly becomes obsolete. Implementing the consultants' recommendations will serve as the foundation for creating an integrated MIS and enable CEM to process financial data effectively and quickly.

This analysis has been discussed with USAID/Madagascar staff and with Mr. Hery Ralison Rakotoson, Director of Information at CEM, although many of the recommendations had already been discussed during the assessment. Mr. Ralison was receptive to the recommendations and recognized their potential effect on CEM operations.

D1. The Technology Platform

D1a. Software

Description. CEM has 10 different computer software applications that are divided into management software and a main group of services, savings software.[10] The most important applications, management of savings operations (gestion des operations d'Epargne—GESOP), management of savings information (gestion des renseignements relatifs aux epargnants—GESRE), and statistics, were written in RMCOBOL 85. The other applications, operations (movements des operations—MOP), accounting (agent comptable), general administration, payroll, budget, finance, and treasury were written in Clipper. By taking advantage of the Y2K application conversion, all the RMCOBOL 85 applications were converted into Clipper with the exception of GESOP, which is in the process of being converted. The Clipper version of GESOP is expected to be converted by October 1, 1999 and the parallel run between the RMCOBOL and the Clipper versions by December 1, 1999. This will allow the new version to be ready by the close of the business year on December 31, 1999.

The biggest constraint of the system is that the applications are neither interrelated nor physically connected to each another. Each was developed individually and runs on a separate computer. A relational database is not used even though CEM is aware of the need to bring their computer applications into one.

CEM uses the industry standard Microsoft Office, includes Word, Excel, and PowerPoint. It does not have a World Wide Web site. Software development methodology is not applied nor are design tools such as CASE Tools being used. Very few off-the-shelf software programs at CEM have original licenses.

Conclusions. Because CEM offers only a limited number of financial services, most of its business operations can be handled by available computer applications. However, CEM has no technicians who are trained in RMCOBOL 85, and, coupled with the restriction that the language was designed to operate on proprietary systems only (a closed platform) such as the NCR Tower 32/700, it is necessary to convert all computer applications into a language such as Clipper, which is easier and more flexible in its uses. The decision to convert all the applications from RMCOBOL 85 to Clipper was correct and, in the consultants' opinions, represents an upgrade of applications.

CEM's continued growth and the availability of more powerful tools in the market will oblige it to continue converting its software. The next level should be into a relational database management system (DBMS) and a graphic user interface (GUI). For this conversion, CEM intends to use a Microsoft SQL server and Visual FoxPro. A relational database will offer several advantages, such as centralization of information, easy access, data integrity, and easy customization of information for new business requirements.

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[10] See Appendix C for additional information on computer users and applications .

CEM has two programmers in software development and systems maintenance. Their work is limited to supporting the current applications. It will be necessary to out-source the software development and establish a task force to support CEM's technical staff. At least two local companies (RINDRA and TECHNO TOP) have experience in this type of technical environment; they can be contracted to do the conversion work. Both companies have worked with CEM. Using local companies and SA CEM IT staff should be cost effective. Because CEM technical staff and users are well versed in computer applications, the conversion process should be a smooth one.

Recommendations.

Converting all software into a database and GUI environment will require money. It will also be necessary to hire a local company to provide technical support. A conversion will result in an integrated applications system that uses more modern and dynamic software.

For CEM to comply with intellectual property laws, it should purchase licenses for all off-the-shelf software packages. This requires money.

More sophisticated procedures to test and upgrade software applications should be introduced.

CEM should develop an internal Website that contains general information about its operations and services. It is important to develop this early because it is the trend in technology development. The Website can be created using a wide area network.

Technical staff must undertake a systems development methodology that supports software for systems or CASE Tools. The consultants recommend Engineer of the Information for project development, and the ERWIN case tool for design. Both products are simple to use and locally available.

D1b. Hardware

Description. Hardware is the technology component that is most vulnerable to obsolescence. Hardware is expensive and it is difficult to keep abreast of the latest developments.

The bulk of CEM's computer equipment is located at the head office. Agencies are limited to one or two pieces of equipment, mostly older desktops, a 14K modem for dial-up transmission, and a printer. CEM is in the process of acquiring a server that will be located in the head office and will house the new database or data integration project. (See Appendix C-2 for an inventory of hardware and accessories.)

Conclusions. One server must be acquired for the network controller; it should be located at the CEM head office. It must have adequate capacity to process the current transaction volume and accommodate growth over the next two years.

Existing agencies and those planned for 1999 must be equipped with new hardware and connected to a local area network (LAN). The existing 486-processor personal computers and printers can also be connected to the LAN for support and backup purposes.

Recommendations.

CEM should purchase a server for communications control.

All CEM agencies should be upgraded to a LAN that consists of two computers, one printer, a 56K modem, and a tape back-up streamer.

D1c. Network

Description. The CEM headquarters has two small LANs that can capture the deposit business and handle administration at the main branch. All agency-based transactions are transmitted to the head office via a dial-up line used after business hours. This transmission is performed using a 14K BPI modem. Many phone lines in Madagascar do not transfer data faster than 14K.

All CEM agencies and 17 post office savings counters are connected by modem.[11] The other post office counters transfer information via diskette. Small post offices transfer information manually, in paper format, a process that can take up to seven months or longer to complete.

No wide area network (WAN) or interconnection of LANs is in use. Some independent Internet accounts are available at the CEM head office through the local service provider, DTS.

Conclusions. It is necessary to create a WAN that connects all CEM agencies with the head office. The WAN should consist of an intranet topology, a structure that uses Internet communication hardware and software to connect, which avoids the high cost of conventional data communications. The benefits of such an intranet WAN are many:

- Information and files can be cost-effectively transmitted by e-mail;
- It uses internal and external e-mail services;
- Speedy communications between agencies are facilitated;
- Communication between remote places using phone lines is facilitated;
- It is inexpensive to maintain; and
- The World Wide Web can be accessed from the head office only.

A WAN requires that the head office and all agencies be connected by a LAN using Windows NT, the industry standard. The LAN will use a hub that will permit equipment to be connected in different configurations. A router will be connected to a dedicated line using a 56K modem at the head office. (see Appendix C-3). The main connection at the head office will be connected through dial-up phone lines from the agencies and the post offices that are connected to it. A LAN is a simple connection between desktop personal computers, a 56K modem, and a printer (see Appendix C-4).

[11] It is not clear whether all the post office on-line equipment is properly functioning.

A WAN is inexpensive to operate and facilitates transmission of e-mail and other data at least every hour. Dedicated phone lines were considered, but they are expensive in Madagascar, and an intranet configuration is relatively easy to set up, operate, support, and is also cost effective. Several institutions in Madagascar already use a WAN/intranet configuration.

Recommendations.

A WAN that links CEM agencies and the head office should be installed .

Install a LAN in each agency and head office.

D2. Organization

Description. The information department (Direction Informatique, or DI) is divided into two areas, service and maintenance (service developpement et maintenance, SDM) and data management (service traitement des données, STD). They report to the Office of the Director, Mr. Hery Ralison Rakotoson. SDM has two staff members whose task is to develop and maintain software. STD has six staff members who are responsible for managing the daily operations. The director has his own office.

DI has no formal training program. Rather, it responds informally to the needs of CEM users and provides solutions based on available resources. Senior managers provide no guidance or direction nor do they request input for strategic planning purposes. There is no policy for evaluating CEM's hardware and software needs. Any support that is provided is informal and limited to basic solutions within the limitations of existing resources.

Conclusions. DI's organizational structure requires a minor adjustment. A software firm should be hired to assist with the extensive conversion and development of a new system to support the SDM. This assistance should be temporary and CEM staff must be prepared to maintain the application after the installation and handover are complete. The DI should take great care to hire a technical support company in a disciplined way and ensure that the most cost-effective approach is selected after service is provided.

A new SDM user support function should be added. This is a prerequisite for any computer environment that uses client servers, database systems, and network connections. A Help Desk should be established to support all users throughout the CEM network.

A task force that reports to the board of directors should be appointed to facilitate prompt and effective decision making the recommended MIS changes are designed and implemented (see Appendix C-5 for additional information).

Recommendations.

Create a Help Desk support group inside the STD.

Outsource software development to a local firm.

The board of directors and senior managers should be directly involved in making MIS policy and decisions.

A formal training program should be required of all CEM technical staff.

USAID should provide a technical study tour for senior technical staff to introduce them to the operations of similar institutions in the United States.

Technical seminars should be offered with participation by foreign experts in specific topics such as software development, security and control, and contingency planning. These seminars would benefit other public institutions as well as CEM.

D3. Security and Control

Findings. Nothing has been done to mitigate CEM's fairly extensive dependency on IT. Security access passwords are not used and physical access to the server room is not controlled. The current practice of isolating computer applications in different machines limits information exchange and increases the risk of error. Data integrity will occur only if an integrated database is installed, which will restrict access to authorized personnel and decentralize information input and output.

The DI lacks procedures to guide its operations. Personnel who do not have formal computer training perform tasks with on-the-job learning. Technology transfer is limited to a few employees. This practice is risky and gives rise to an ill-founded sense of job security among staff and works to the detriment of the institution. The risk is compounded by the absence of software documentation that either does not exist or is limited. This undermines software development in general and results in an excessive degree of reliance on programmers.

Like many other institutions in developed and transition economies, CEM does not have a contingency and disaster recovery plan that would allow it to continue operating with a minimum of disruption if its IT systems collapsed. This is alarming because CEM's backup system is incomplete, inadequate, and would not allow the reconstruction of applications if an emergency occurred.

Conclusions. Immediate attention and action are required. First, CEM's risk of information loss and/or exposure to extended periods of disruption is unacceptably high. Second, there is no documented evaluation of IT requirements for branch expansion and the impact that expansion will have on CEM's ability to administer additional transactions and services. As a result, there is no means to control the commitment and expenditure of financial resources. Capital investment decisions should be taken within the framework of a budget approved by the board of directors, and subsequently approved by senior management in conjunction with the information department. Third, there is an urgent need to protect the integrity of financial data and ensure transparency and accountability.

Recommendations.

CEM should develop a contingency and disaster recovery plan that guarantees no disruption of business activities occurs. A first step in this direction is to backup all data files.

CEM should develop a comprehensive IT development program and capital investment budget that is consistent with its strategy and business plan. The plan should be approved by the board of directors, reviewed periodically, and modified as appropriate.

In accordance with policy guidelines set down by the board of directors, operating procedures and controls must be developed, introduced, and institutionalized to ensure that modifications to systems hardware, software, and data management routines are properly authorized, tested, and implemented. The system, including all software applications, must be appropriately documented, and all changes duly recorded.

Access to the system's hardware, software, and data must be restricted to authorized personnel only. Security devices and logical systems access will minimize the risk of unauthorized access to the system. It is recommended that CEM purchase antivirus software for networks, firewall protection for the network, and encryption software for network routers.

Once the new technology is in place, a database and client server are necessary to create two working environments: one for testing and one for production. This will limit users' access.

Any new or modified component must be tested in a separate environment to guarantee that the system functions correctly. No untested component should be part of the production environment.

D4. Y2K Assessment

Findings. The consultants reviewed the assessment of Ambre Associates; a local firm that performed a Y2K compliance assessment under the USAID/Madagascar-sponsored Year 2000 Compliance Review. Our efforts to verify the correctness of Ambre's conclusions are based on a random inspection of source codes and hardware components.

CEM's software has 6 to 10 basic operational systems that were originally written in COBOL. Hardware is unsophisticated and uses a simple WAN for connectivity. Much of the software that CEM uses is neither Y2K compliant nor Y2K certified.

Conclusions. Following several meetings with Ambre Associates staff, we have concluded that the evaluation methodology was appropriate and that the completed recommendations and plan of action is adequate for CEM. The final document described in detail the problem associated with the technological components. The document clearly and adequately defines the source that verified compliance, the certification of each computer product, and the plan of action required to resolve possible problems.

CEM's decision not to modify the current COBOL programs to make them Y2K compliant was correct because there is little in-country technical capacity in COBOL programming (CEM has only one person who is familiar with COBOL). Therefore, it is important to take advantage of the Y2K compliance work to upgrade CEM's software to a common computer language. CEM is

also in the process of replacing and upgrading all non-Y2K compliant hardware, including the NCR Tower 32/700, with a more advanced Compaq ProLiant 3000 R server.

We believe that CEM is prepared to confront any possible disruption in its operations that may result from the Y2K problem.

Recommendations.

The GESOP application should be run simultaneously in Clipper and COBOL. This will allow problems or errors to be detected during the conversion, before the new system is fully operational and the old system is discontinued before January 1, 2000.

The minimum requirement for future software or hardware purchases is that they be certified as Y2K compliant.

D5. Management Information System

Findings. To develop a meaningful MIS, decision makers must be able to specify their minimum information requirements. Users must also have access to integrated technology that allows for accurate and timely compilation of data that are required by decision makers. CEM senior managers lack the expertise to define their information requirements and incorporate them into the decision-making process. Staff also lack basic technological knowledge to produce an integrated MIS system that will quickly generate accurate information.

Conclusions. Several reports and evaluations have already been carried out. They are available to CEM and provide specific details for improving the financial reporting system. The guidelines in the Eccles report should serve as the point of departure. Those guidelines, and an upgrade of the technological platform and a more proactive decision-making team are required to move forward with the development of a sound and responsive MIS. To recommend a new MIS report would not be productive because the recommendations in the Eccles report were never implemented.

Recommendations.

Establish a task force that would include an MIS advisor to develop an overall institutional development plan.

Create an integrated technological platform, taking into consideration the recommendations noted in this analysis.

Develop a basic management information reporting system using the detailed analysis contained in the Eccles report.

D6. Summary of Recommendations for MIS

In order of priority

- Involve the board of directors and senior management in policy formulation and decision-making on MIS operations as appropriate, and, on this basis, formulate or introduce information technology operating procedures that reflect policies that have been agreed to.

- Ensure that all changes to systems hardware, software, and data are properly authorized, tested, and implemented; that the system is appropriately documented; and changes introduced are recorded.

- Ensure that all software is accompanied by basic documentation.

- Restrict physical access to system hardware, software, and data to authorized personnel only.

- Use security devices and logical systems access to minimize risk of unauthorized systems access. Purchase software for this purpose (e.g., network antivirus, firewall for network access, encryption of network routers).

- After installing the new technology platform, create two working environments, one for testing and the other for production, based on a database and client server environment.

- Convert software into a database and GUI environment to support an integrated applications system. Outsource support for the conversion effort to a local company as necessary.

- Ensure that all off-the-shelf software is properly licensed in accordance with intellectual property laws.

- Create more sophisticated operating procedures for testing and producing software applications.

- Develop an informational WAN-based, in-house website that can accessed via the Internet.

- Use methodology for systems development that supports systems software (CASE Tools), such as "Engineer of the Information" for project development and "ERWIN" case tool for design.

- Install LANs and WANs in and between each agency and headquarters. Equipment should include at least two computers, one printer, one 56K modem, and one tape backup streamer.

- Purchase a server for communications control.
- Create a Help Desk support group inside the STD organization.
- Outsource software development services to local firms.
- Establish a formal training program for CEM technical staff and users.
- Arrange for senior staff to participate in educational study tours, with the support of USAID.

E. Financial Analysis

E1. Methodology

The scope of work for this assignment called for the preparation of monthly income and expenditure statements. Unfortunately, CEM's accounting system does not generate a monthly income and expenses report for the following reasons:

Posting and accounting of deposits is handled by more than one responsibility center. It involves staff at the post office, CEM and the National Treasury. This triangular arrangement operates manually, is extremely inefficient, and increases the possibility that errors occur.

Delays in data compilation and transfer, posting and reconciliation, financial reporting, and the failure to close the general ledger on an annual basis means that at any point in time, there are differences between the Treasury account balances reflected in the accounts of the Ministry of Finance, the CEM and the post office. Those differences are sizeable and they do not address the problem of ensuring that the CEM's savings accounts transactions are current.

The accounting operations must request CEM's National Treasury account balance information in person because the Treasury does not issue account statements, nor does it advise interest rate changes on a timely basis.

The latest available audited statements, prepared by the Cabinet Martin Rasoanaivo, reflect CEM's financial position as of September 30, 1997.[12] The audited statements prepared by Delta Auditing/Deloitte Touche, which the consultants used, contained discrepancies and lacked credibility to the point that they were not useful in this analysis. In addition, no audited statement or general ledger closing was available for the period ending September 30, 1998.

It was not possible to extract up-to-date, reliable data on which to base a financial analysis of CEM performance or to develop reasonable projections for 1999. Therefore, the consultants worked with account balances that were generated by the CEM system as of December 31, 1998,

[12] A second independent audit for the same period was prepared by Deloitte Touche but the audit results differ from those of Cabinet Martin Rasoanaivo.

with the exception of the account with the National Treasury. The Treasury account is reconciled separately but is not regularly balanced with CEM accounts.

CEM's actual asset balances as reported by the Treasury as well as its accounts with banks were used to establish the asset values and the 1998 financial statements and, in this report, are pro forma.

In addition, it was not possible to reconcile deposit accounts and the consultants identified a major discrepancy between CEM's assets and liabilities. CEM's accounting department attributed the difference to delays in transferring and posting the transaction data processed through the post office network. A discrepancy of FMG 26 billion in liabilities is shown as *Savings Transactions in Transit* on the 1998 pro forma statement. For the sake of simplicity, the 1999 projected financials retain this same level.

This figure is not precise. The amount, which reflects an asset-liability gap, was determined on the basis of a physical review of CEM's account statements with various banks and the Treasury. The amount shown is the result of the best efforts of the consultancy team to determine the value of transactions that have not been reconciled and which the post office is supposed to post. This situation should be remedied. Indeed, the entire settlements system should be overhauled and automated.

E2. Assumptions

The consultants present three scenarios for the 1999 projected financials: worst, good, and best case. The best case scenario assumes 25% growth in the volume of savings and is based on actual growth in value of the deposit base, which has exceeded 30% per annum over the past six years. This performance cannot be ignored. Data from 1998 reflect a slowing of this trend, despite the opening of three new branches, but an adjustment has not been made to the percentage mix of the deposit base.

The rapid rate of deposit growth over the past few years is primarily the result of two factors. First, interest received by CEM depositors is tax exempt and depositors may reap further tax incentives in direct relationship to the average balance maintained. Second, CEM has routinely paid substantially more than market-based interest rates on savings accounts. In addition, it introduced special accounts (term deposits, or jumbo accounts), on which it pays double the market rate of 6%. To a certain extent, the addition of large individual deposit accounts distorts the growth trend because volume growth can be partly attributed to a few new, large-scale deposits rather than to an actual increase in the number of depositors.

The three scenarios were developed using growth rates of 10%, 15%, and 25% (refer to Appendixes D, E, and F). Actual results in 1999 may well exceed these expectations, but to project growth above 25% is, in our opinion, too speculative in an economy that still suffers from major structural weaknesses. Accordingly, we present a more conservative position.

E3. Statement Analysis

Accounting Practices. CEM's current accounting practices for transactions handled by the post office and settled through its account with the National Treasury seriously distort its financial statements. Interest received on the account at the Treasury should, in our view, be paid monthly or quarterly rather than six months after the end of the period when it is due. Similarly, savings account interest should be paid monthly or quarterly instead of six months after the end of the year in which the interest is earned. Changing these accounting practices would increase CEM's balances with the Treasury and CEM's gross savings account balances by the amount of the interest accruals. It would also help to clean up the financial statements, facilitate a daily balancing of the general ledger, and permit CEM management to produce financial statements on a monthly basis, which is the practice at most financial institutions.

Income and Revenue Trend. The net income and financial revenue for each year from 1993 to 1998 are profiled in the graph in Appendix G. In 1994, the Malagasy government provided a grant of FMG 2.9 billion to compensate CEM for the previous year's low interest income paid by the Treasury. This amount was recorded entirely in the income statement for that year. Otherwise, the level of net income would more or less have followed the pattern registered for financial revenue throughout the period.

Expenses. The comparative five-year statement of income and expenses indicates the need to carefully monitor certain line items:

External expenses increased by 35% in 1998 because of an increase in advertising expenses and the opening of three new agencies.

Interest charges include the interest paid to stable accounts (5.25%), ordinary accounts (4.5%), and special accounts (up to 12%). Interest paid to stable and ordinary accounts has remained unchanged since 1997 despite CEM's apparent freedom to set interest rates. However, total interest expenses went up at a higher rate than the increase in deposits. This is attributed to above-market rates being paid on the special accounts (jumbo accounts) from the latter part of 1998.

Salaries and wages doubled between 1996 and 1998 as CEM hired additional employees for the new agencies. In addition, commencing January 1998, the salaries of some personnel who work at the five agencies are charged to CEM, whereas before then, they were paid by the post office.

Interest Income. CEM earns interest from two sources: its regular account with the Treasury and Treasury Bills (BTAs). CEM began purchasing BTAs in September 1998.

At present, the CEM maintains 92% of its liquid assets with the National Treasury. The interest rate earned is based on the average 12-week BTA rate, which is established according at the biweekly BTA auction. The interest rate earned from the Treasury began to rise in the second quarter of 1998, when it increased from 5.96% to 16.27% at year end, before dropping to 13.11% during the first quarter of 1999. The interest rate earned on BTAs purchased at the auctions is

significantly higher (200 to 400 basis points) than that paid on CEM's account with the Treasury. This rate has fluctuated between 16% and 19.5%.

E4. Ratio Analysis

CEM's financial performance can be measured through the application of financial ratios. Based on the series of ratios introduced in the December 1997 Antal report and cited in the statement of work for this assignment, the following results have been obtained:

Ratio Measurements	9/30//96	6/30/97	12/31/98	Comments
1. Current Assets—Investments Current liabilities–Savings	0.28	0.18	0.38	Should be 1.0
2. Total Liabilities–Net Worth	6.32	8.35	9.27	Should stay under 10
3. Gross Revenue—Interest exp.	68.0%	67%	57.2%	Should stay above 65.0%
4. Profit Before Tax / Gross Revenues	37%	6.0%	5%	Should be at 15%–20% range.
5. Profit before Tax / Total Assets	8.5%	0.6%	0.6%	Should range at 1.5%–2.5% minimum.
6. Net Worth / Total Assets	13.0%	10.0%	8.9%	Should stay between 0% and 15%

Ratio 1 is not appropriate for a financial institution. Asset/liability management requires an even closer matching of maturities and currencies than in a commercial enterprise to ensure that gaps (unmatched positions) are minimized and sufficient cash is held to honor withdrawals while appropriately investing surpluses to conserve the institution's capital.

Ratio 2 does not accurately measure capital adequacy because CEM has no credit risk assets in its balance sheet. This situation will remain until CEM is authorized to engage in credit operations. CEM can theoretically withdraw money from the Treasury at any time to honor its liabilities. Also, requiring this ratio to be below a certain benchmark would, in essence, limit CEM's ability to accept savings deposits beyond a certain limit. Until a credit risk exists, this is inappropriately restrictive. Furthermore, equity would increase considerably if interest on savings accounts and balances with the Treasury were posted in accordance with our recommendations. For these reasons, this ratio should be discarded.

The accumulated effect of low interest rates at the beginning of 1998, coupled with an increase in operating expenses and personnel charges have resulted in decreased profitability for the period in question and a deterioration in the ratios established in the December 1997 Antal report. This situation caused Ratio 3 to drop from 67% in 1997 to 57.2% in 1998.

For Ratio 4, in late 1997 and into 1998, the spread between interest revenues and interest expenses was squeezed as the rates paid by the Treasury went down significantly. In the beginning of 1998, these rates reached historical lows of 5.96%. Meanwhile, interest paid to depositors remained unchanged despite the apparent ability to freely set rates. The accumulative effect of the low interest rates paid at the beginning of 1998 and the increase in the external expenses and personnel charges have led to a decline in pretax profitability.

Return on assets (Ratio 5) is projected to remain at about the 1998 level during 1999. It is strongly recommended that CEM review its options for improving its return on investments. Purchasing more Treasury Bills from the market offers a worthwhile return.

Ratio 6 fell slightly in 1998 because the small increase in capital (through retained earnings) did not keep up with the strong growth in savings accounts. The investment in three new agencies and the distorting effect that the delayed interest payments are having on the financial statement are the principal causes of this.

Although the six ratios used are in line with the scope of work, they are not widely used by the banking community to measure financial performance and stability. The consultants recommend using the ratios that follow. Only those that are germane to current CEM activities should be applied. Those relating to loans would not be applied until CEM is authorized to conduct lending activities, acquires a banking license, and is able to lend. Using some of these criteria, the following performance indicators have been calculated on the past six years' actual results.

Performance Criteria	**Calculation Base**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**
Return On Equity	Net Income/Average Equity Capital	(56.65%)	131.72%	11.26%	60.92%	4.11%	6.19%
Net Interest Margin	(Interest Income–Interest Expense) x 100 /Average Total Assets	1.82%	6.43%	5.88%	18.19%	6.28%	6.56%
Value Added per Employee (VAPE)	**Net Income + salaries/# People On Payroll A***	30.9	64.8	65.6	171.9	59.2	84.4
Net Income to Staff Expense	Net Income/Total Staff Expense	(4.89)	11.99	1.13	7.06	0.36	0.45
Yield on Earning Assets	Total Interest Income/Average Earning Assets	10.01%	14.36%	11.96%	28.77%	11.45%	12.25%
Net Spread	**(Interest Earned/Loans) – (Interest Paid/Interest Bearing Deposits)**	5.45%					

* figures in millions of FMG.

The following performance indicators have been calculated on the basis of 1998 actual results and the 1999 projected figures, and for the three growth scenarios of 10%, 15%, and 25%. The results are shown in Appendixes D, E, and F, and are based on CEM's records and its account balance at the National Treasury. The results reflect the enormous distortion brought about by the interest settlement system in place. Therefore, the performance ratios are of limited use until CEM's financial management system is improved and proper procedures and controls are put in place.

Banks are typically evaluated in terms of profitability, risk, efficiency, productivity, and capital strength. Comments on these performance measurements and how CEM ranks versus the industry are provided here.

E4a. Measure of Profitability

Return on Assets (%)

Calculation: Net income after tax x 100

Average Total Assets

Significance. This ratio evaluates operating profits to total resources and is considered to be the best single ratio for evaluation of a financial institution and its management. The industry standard is about 1%, depending on the type of financial institution. CEM, with a projected 2–2.5% for 1999, is clearly doing better than the average. The ratio would further improve if interest were paid in a timely manner.

Ideally, the denominator would be the average daily assets outstanding. However, this figure is not readily available. Other averages, such as the average at month end or quarter end, are usually used as substitutes for the base.

Return on Equity Capital (%)

Calculation: Net Income After Taxes x 100

Average Equity Capital

Significance. This measures the return on shareholders' equity/investment. It is best to measure this ratio on the basis of average level of equity over time, but when such data are not available, monthly or quarterly figures may be substituted. CEM's projected 27%-33% is well above the industry norm of 15%. The rapid growth rate in liabilities has been reducing the level of capital in relation to assets. This is of little consequence as long as no loan portfolio risk exists, however, if CEM introduced assets in the form of loans into its balance sheet, it would need an additional capital injection.

E4b. Measures of Risk

Risk measures include loan loss rate (loan losses as a percentage of total loans), liquidity, and asset liability management. CEM does not make loans, therefore it does not incur credit risk, and its asset to liabilities situation cannot be measured in a meaningful way.

E4c. Measures of Operating Efficiency

There is no universally accepted definition of these ratios. For this report we attempt to establish precise definitions and methods for calculating the ratios using terminology that has general acceptance.

Net Spread (%)

Calculation: Interest Earned x 100 — Interest Paid x 100

Loans Interest-bearing Deposits

This ratio covers only those assets and liabilities that have an interest rate attached to them. Therefore, this excludes the impact of non–interest-bearing deposits, capital, and nonremunerated

reserve requirements on net interest earned and, thus, on bank profits. This helps define the effect of interest rates on bank profits and therefore provides a better understanding of the sources of bank profitability and, consequently, on the vulnerability of a bank's earnings.

The industry standard for net spread is 1.25%. CEM, through its high yielding investments with the National Treasury and Treasury Bills, is able to far exceed this level while incurring no credit risk. With growth in deposits set at 10%, pro forma 1998 and projected 1999 net spreads are 5.9% and 7%, respectively. Spreads range up to 8.2% when a 25% growth in deposits is applied.

Net Interest Margin (%)

Calculation: Interest Income – Interest Expense x 100

Average Total Assets

Significance. This ratio identifies the core earnings capacity of a bank: its interest differential income as a percentage of average total assets. An alternative approach prescribes earning assets as the denominator based on the presumption that the interest margin applies to earning assets engaged in providing interest income.

Both nonearning assets and non–interest-bearing liabilities have a powerful effect on the net interest margin. This is because nonearning assets are a burden on income, particularly if they are financed with interest-bearing liabilities, while non–interest-bearing deposits positively affect earnings, especially if they finance high-margined interest-bearing assets.

The industry average for this ratio is 4.5% and CEM's projected performance under this is somewhat low at 2.4%-2.6%, depending on the growth rate of deposits. Reducing interest rates and aligning interest payments on both assets and liabilities in the manner recommended in this report should have a positive effect on this ratio.

E4d. Measures of Staff Efficiency

Because salary remuneration generally represents the major component of a bank's noninterest expenses, staff productivity, measured either against staff expenses or number of people on the payroll, can provide insight into a bank's efficiency. However, because current period savings in personnel remuneration through excessive restrictions on salary levels can lead to a decline in the quality of service and staff motivation, care has to be taken to avoid reducing the institution's efficiency over the longer term.

Net Income per Staff Member

Calculation: Net Income After Tax

Number of People on the Payroll

Significance: This measures the average income generated by each staff member. This ratio would be significantly different for a wholesale bank that handles less labor-intensive loan

funding and is normally operated with lower paid staff. Projected 1999 performance is estimated to produce a marked increase in employee productivity from about FMG 4 million in 1998 to between FMG 21 and 28 million, depending on the growth rate of deposits.

Value Added in Financial Services

Value added is the difference between revenues and total nonlabor costs such as interest expenses or telephone costs. It consists of profits, wages, and taxes. Value added is what customers pay above the cost of inputs when they use financial services firms. The concept is simple: Labor works for investors' capital to add value to it by turning capital into goods or services that are sold to customers at a profit. Value added is used worldwide as the basis for taxation. The usual application of the valued added tax in Europe, for example, is in manufacturing or retailing industries, where nonlabor costs are dominated by raw materials and goods for resale.

The value added concept is an especially good measure of productivity for financial institutions because other measures of inputs and outputs are overwhelmed by financial costs and revenues. There are few material inputs into the production of financial services, and output is hard to characterize. Examination of value added focuses on the value to customers of a financial firm's activities. Value added can be calculated for a firm using the following equation:

Value Added = Wages + Profits + Taxes

A useful comparison of firms and industry segments is value added per employee (VAPE), which is calculated as:

$$\text{VAPE} = \frac{\text{Value Added}}{\text{Number of Employees}}$$

CEM is projected to show some significant productivity gains that will be further enhanced through automation of services and systems. VAPE is expected to more than double from about FMG 15 million in 1998 to over FMG 30 million during 1999.

E5. Capital Strength Measures

According to the Bank of International Settlements, capital adequacy requires that a bank maintain capital equal to a minimum of 8% of risk-weighted assets. A good capital ratio is 10% of risk-weighted assets. CEM however, has no risk-weighted assets per se because the risk is the Government of Madagascar, from which, theoretically, all funds are refundable on demand or within a short period of time. The gearing of capital will, however, become an issue that requires careful management as soon as CEM is authorized to conduct lending operations.

CEM's current capital, projected at 7.6% for 1999, is insufficient should CEM replace its risk-free liquid assets with risk-bearing loan assets. Adjustment to this ratio is generally accomplished through interest rates on both deposits and loans and a careful allocation of funds to ensure that capital adequacy is accomplished and maintained.

E6. Pro Forma Financial Statement—1999

The projected worst, good, and best case financial statements for 1999 are based on the following assumptions:

The volume of deposits will increase by 10%, 15%, and 25% respectively.

CEM's weighted average cost of funds is estimated to be 5.67%, based on the interest rates paid to ordinary, stable, and special accounts. The same interest rate regime on both deposits and investments will be pursued throughout the year.

The payment of interest on deposits and the National Treasury account will remain delayed for the rest of 1999.

According to CEM management, interest due on savings accounts shown as a payable in 1999, was capitalized in the institution's records at the end of 1998 even though it wasn't paid until July 1999.

CEM will invest in more BTAs in 1999 and reduce the amount of funds deposited into the Treasury account. This will result in an average return on funds of 12.88%. We were advised by CEM management that there is no restriction on doing so, but given the decision-making role of the government in CEM management, the degree of latitude that CEM enjoys with its own financial management appears to differ greatly from the authority granted to it by decree.

New agencies and a projected increase in business and personnel will result in an increase in these expense categories by 24% in 1999. This includes increasing the number of staff from 130 to 161. Compared with historical trends, personnel costs are substantially under the industry norm.

Other expenses are projected to increase at a flat rate of 12%.

Using the projected increase in deposits of 25% as a base, the financial projection for 1999 provides an estimated net income of FMG 4,310,421,023 based on the following assumptions:

An increase in savings deposits, to about FMG 24.5 million. As of April 1999, the recorded net increase in savings from CEM's agencies and post office bureaus was FMG 20.5 billion.

The number of savings accounts is projected to increase by 12%, in line with 1998.

CEM's average cost of funds is estimated to be 5.67% based on interest rates paid to ordinary accounts, stable accounts, and special accounts, and their respective importance in the total collected funds.

	Ordinary accounts	Stable accounts	Special accounts
Interest Rates	4.50%	5.20%	12.00%
Expressed as a Percentage of Total Deposits			
1999	40.00%	49.00%	11.00%
1998	42.35%	54.58%	3.07%
1997	45.80%	54.20%	0.00%
1996	42.78%	57.22%	0.00%
Average Costs of Funds 1999	5.67%		

During 1999, we project that cash surpluses will be placed in the Treasury account (86.5%), or used to buy Treasury Bills in the money market (8%). The remaining funds are in cash (3%), a U.S. dollar bank account (1%), and a local currency bank account (1.5%). The average return on funds is estimated at 12.88%. The actual and projected rates of return for each of these types of placement appear below:

	Actual 1/1–5/30	Projected 6/1-12/30	Average projected Return on funds	Percentage of Total deposit
1. Treasury Account	13.50%	13.25%	13.35%	86.50%
2. Treasury Bill	16.72%	16.00%	16.30%	8.00%
3. Cash	0.00%	0.00%	0.00%	3.00%
4. Dollar Account	0.80%	0.80%	0.80%	1.00%
5. FMG Account	1.00%	1.00%	1.00%	1.50%
1999 Average Return on Funds			12.88%	100.00%

CEM intends to set up three new branches during the next 12 months. The actual cost of agencies in Taomasina, Fianarantsoa, and Majunga has averaged FMG 250 million each. Thus, we estimate that two units will begin operations before the end of calendar 1999, for which an FMG 500 million investment has been forecasted.

CEM has undertaken to reimburse depositors for the commissions collected by the post office for processing transactions . The CEM decision translates into an expense and liability of FMG 695 million for calendar year1999, including approximately FMG 79 million for deposit transactions processed in November and December 1998. CEM management expects to negotiate and resolve this issue with the post office in the near future and that the levy will be discontinued at the beginning of 2000.

As of December 31, 1998, liabilities were adjusted by a net of FMG 25,889,003,132, which is shown as Savings Transactions in Transit. This reflects actual balances of the Treasury account, cash on hand, and in the bank. CEM's accounting records show only a total balance of FMG 98,557,061,798 for the aggregate of their customers' savings balances.

From our review of CEM's accounting records, the following balances exist:

	$	12/31/98 FMG	%
BFV US$ account	174,330.44	915,921,672	0.42%
BFV MGF account		1,712,611,810	1.51%
National Treasury CDC [1]		105,541,929,279	93.29%
Treasury Bill		1,600,000,000	1.41%
Agencies' Cash, CCP, Bank		3,807,055,110	3.37%
Total Cash or Equivalent – Balances		113,604,507,871	100.00%

1 Balance without accrued interest. The adjustment also takes into account the interest earned from the National Treasury of FMG 10,868,547,059, which accrued but was not received in 1998. Accounts receivable and payables have been at the same level as for 1998. The interest figure does not appear on CEM's books, and was reconciled from CEM's reconciliation with the Treasury.

F. Conclusions

As a conduit for savings mobilization, CEM has been and continues to operate on a profitable basis. However, this performance will continue only as long as the funds are invested in a risk-free manner with the government. Any attempt to stray from this strategy should be contemplated only if and after the institution completely overhauls its financial management internal controls policies and procedures. To evaluate CEM's performance until these reforms have been introduced makes the financial analysis exercise somewhat meaningless because the results of operations do not reflect those of an institution in which management and administrative capabilities are being put to the test through financial intermediation. In our opinion, financial viability is attainable, but it will require a major commitment from the government to enable the significant policy and procedural changes that need to happen.

The growth in the deposit base may be more temporary than real. Large depositors tend to show little loyalty when interest rates turn against them and are ever ready to transfer their funds to more attractive investment alternatives. Nevertheless, we strongly advise that the level of interest rates paid for jumbo accounts be reduced, if not discontinued. This recommendation takes into account that only two of the six commercial banks in Madagascar offer savings accounts at all, while the economy in general is experiencing a high level of liquidity. Therefore, considering the lack of credit risk and CEM's high level of liquidity, there is no apparent justification for paying over-the-market rates of interest. In addition, the practice of overly remunerating large depositors has other negative aspects.

CEM has enormous untapped potential to attract noninterest revenue through the development of noncredit services and products. These opportunities to diversify are not likely to be exploited in the near term, nor should they be. In the foreseeable future, all human and financial resources will have to be directed to strengthening the institution and its operations.

Conclusions and Recommendations

CEM is facing a window of opportunity. By law, it has, in effect, been granted the right to change its focus, expand its activity base, and become a full-fledged member of the formal financial sector in Madagascar. It also has the right to embark upon a four-year transition period during which it can introduce and institutionalize the changes in policy, procedures, systems, and management routines that will authorize it to operate as a formal, full-service financial institution. Although CEM is not specifically included in the list of enterprises to be privatized, the Government of Madagascar is committed to disengaging from state-owned agencies and enterprises.

It is the consultants' opinion that public sector reforms and a legal restructuring of the banking sector present an opportunity that CEM should not miss. The decision for CEM to become a largely privatized financial institution requires a solid commitment from all stakeholders to modify its public sector relationship; and to change, realign, and strengthen its internal operations.

The section presents the consultants' conclusions for CEM's ability to conduct high-quality savings mobilization on a sustainable basis, and to expand its financial service offerings over the near term and medium term. We also propose a plan for CEM's future growth and development; however, the proposal is predicated upon some well defined conditions that we believe must be met before the plan is implemented and agreement on a basic set of working assumptions.

A. Summary of CEM Strengths and Weaknesses

Strengths and weaknesses are based on current CEM operations.

STRENGTHS	WEAKNESSES
Established depositor base.	Inappropriate governance practices.
Access to relatively inexpensive funds.	Lack of management capacity.
Name recognition in target market.	Lack of technical subject matter expertise.
Established and growing network of agencies.	Lack of adequate policies and procedures.
Established presence within the postal system.	Inadequate systems and controls.
Attractive potential for expanding outreach.	Lack of financial management capacity.
Potential link between formal and informal financial sectors.	Limited revenue-generating capacity.
	Uneven geographic presence.

These inadequacies and deficiencies cannot be dismissed or explained away; many have been cited in previous reports. We believe that if agreement were to be reached on certain preconditions before any further initiatives are undertaken, that problems could be mitigated (if not resolved) during the transition period, and CEM's overall performance could be vastly improved. In addition, the importance of CEM's deposit base and its name as a valuable "intangible asset" should not be underestimated. A prerequisite for any financial institution introducing credit schemes and establishing a loan portfolio is to establish a solid depositor base. This can be a difficult and lengthy process. Other things being equal, the positive association of

the CEM name with savings mobilization places it in an enviable position and reduces the time it would otherwise need to introduce lending services.

On balance, CEM's weaknesses can be reversed through the systematic definition and institutionalization of appropriate management routines, basic banking prudential norms, and skills transfer. Although proven banking policies and procedures may have to be adapted to a certain extent, any modification is expected to be minor.

B. Proposal Preconditions

Throughout its history CEM has been controlled first and foremost by the Ministry of Finance. As an appendage of the ministry, through its savings mobilization activities, CEM has been and remains an important source of revenue for the Madagascar Government. It is therefore understandable that the government is hesitant to withdraw its control of CEM and the financial resources it generates.

Despite rumors to the contrary, no definite commitment has been made to privatize CEM. The volume of CEM shares to be sold to the private sector is minimal and will not change the Ministry of Finance's position on overall management control. In addition, because the ministry and CEM have not been able to iron out their differences and resolve the ambiguities in Law 95/019 in more than four years suggests that conditions need to be attached to any future initiative to revitalize CEM.

We recommend that the following be completed before the initiation of Phase I activities:

1. All ambiguities and outstanding problems relating to Law 95/019 be resolved.

2. The government commit to the phased sale of a portion of its shares until its ownership is reduced to that of a minority shareholder. This process would be completed simultaneously with the completion of Phase I activities.

3. The Ministry of Finance and CEM agree to transfer responsibility for overall management of the institutional strengthening process (i.e., policies, procedures, and systems governing operations) to a technical assistance team on the basis of a management contract arrangement. The Ministry and CEM would be involved in selecting the experts. In addition, an executive task force should be formed, which would meet monthly, to oversee the work of the technical assistance team. All major policy issues would be referred to CEM's board of directors for consideration and approval.

C. Proposal Working Assumptions

In preparing the proposed plan, we have assumed the following:

Financial sector reform. The economic and political situation in Madagascar will not worsen and government programs for financial reform, economic liberalization, and privatization will remain on track.

Target sector policy. The continued focus on, interest in, and support of government policies for small-scale finance and the growth of the microenterprise and SME sectors.

Definition of microfinance and microenterprise. Agreement on a flexible, practical, working definition of microfinance and small business finance, adapted to the realities of the Malagasy economic environment, to guide CEM's strategy and financial product development.

Demand-driven approach to small-scale finance. A bottom-up, demand-driven approach to small-scale finance, in keeping with the socioeconomic and geographic realities of the country.[1]

Formal versus informal financial sectors. CEM focuses on narrowing rather than broadening the gap between formal and informal financial activities and remains willing to act as an institutional link between the two, as may be appropriate.

Demand for financial services. Recognition that although potential demand for financial services is high, the estimated demand for credit among the lower income groups must be discounted by at least 25%; the rate of savings mobilization may not increase in direct relationship to the expansion of operations beyond urban and semiurban areas; and CEM may have to undertake a promotional campaign to extend its deposit base.[2]

Portfolio balance. In order to spread risk and realize financial viability, CEM will spread its financial services activities across a broad spectrum of end users, even while it maintains a focus on the needs and requirements of microentrepreneurs and SME entrepreneurs.

CEM lending activities. In keeping with the spirit and intent of Law 95/019, CEM will defer the introduction of credit schemes until CSBF authorization has been conferred.

Relations with the post office. The institutionalization of Law 95/019 and revision of the current working relationship between CEM and the post office in order to maximize operational efficiency, minimize cost, and benefit the depositor base.

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[1] A top-down, supply-driven approach is inappropriate in any economic setting. This is particularly true in Madagascar given its division into distinct agro-climatic regions and the state of infrastructure and services available between the regions. It would be inappropriate for the government or CEM to conduct savings mobilization programs and loan portfolio activities on the basis of a centralized, single approach operated from the national level.

[2] A potentially high demand for financial intermediation has been assumed. It should not be assumed that microentrepreneurs and small-scale entrepreneurs will, by definition, request financial services. Surveys taken in other countries suggest that at least 25% of the lower income groups do not want credit, and that another sizeable percentage satisfy their credit requirements within the family network.

Financial autonomy. Financial autonomy for CEM, meaning that: a) once CEM and the Ministry of Finance agree on the amount of funds (*la quotité)* to be held in the Treasury account, the ministry will arrange for the prompt liquidation and transfer of the balance of CEM funds into an account of CEM's choosing; and b) CEM management of its own financial assets, in conformity with CSFB regulations and sound prudential norms.

Rationalization of the savings mobilization operation. Restructuring the savings transfer system so that CEM is responsible for all aspects of the operation, from posting at the point of deposit, through account reconciliation.

D. Proposed Strategic Plan

Objective: Within a period of 10 years, transform CEM into a formal financial institution capable of providing a full range of financial services to small-scale economic agents as well as other individuals, firms, and institutions operating in strategically defined markets. The 10-year period is divided into three phases:

Phase 1	Near Term	Years 1–4
Phase 2	Medium Term	Years 5–7
Phase 3	Long Term	Years 8–10

Phase 1 Goals: Become an operationally viable, autonomous, financial institution (or licensed commercial bank) with a majority private sector ownership structure. Identify and develop plans for new revenue-generating activities.

Phase 2 Goals: Increase operating efficiencies, gradually expand the loan portfolio, and introduce new revenue-generating operations as part of the expansion of overall financial service offerings. Gradually expand the loan portfolio and introduce new revenue-generating operations.

Phase 3 Goals: Realize full financial and operational viability. Expand geographic coverage and actively compete with other banks and financial institutions in the formal financial sector.

Plan Timeline: The plan would commence when Law 95/019 is institutionalized and would coincide with the maximum transition period established by the law.

Success Indicator: CSBF authorization to operate as a full-service financial intermediary.

E. Elaboration of Phase I

E1. Phase I Strategy

Revitalize CEM through organizational restructuring; introduce and institutionalize a comprehensive set of financial policies, procedures, and systems; strengthen financial management; and upgrade staff through technology transfers.

E2. Phase 1 Preconditions

The overall approach to designing a comprehensive plan of action should be based on the following conditions:

1. The ongoing commitment of the board of directors and involvement of senior management must be secured and maintained.

2. The focus should be on financial and operational sustainability, which implies a reasonable measure of profitability.

3. Social objectives will not take precedence over principles of management and banking. Small-scale finance best practices will be combined with sound prudential norms, management routines, and systems.

4. Although all possible areas of operation and distribution mechanisms should be considered, preference will be given to working in the formal sector with formal financial intermediaries.

E3. Proposed Phase I Activities

The activities presented here are not exclusive, nor are they in any priority order:

- Develop a work plan to systematically introduce the policies and procedures outlined in Appendix K, with the exception of those for credit and loan portfolio management.

- Conduct a comprehensive marketing study, including a demand analysis, for the purpose of developing new savings products geared to the savings requirements of depositors in particular socioeconomic regions.

- Conduct a comprehensive cost analysis of CEM operations.

- Formulate a comprehensive business plan and budget for Year 1, and budget projections for Years 2, 3, and 4 of the transition period.

- Develop and introduce new savings products and revenue-generating activities in accordance with the findings of the marketing study. In addition, develop and implement a promotional campaign to prepare for the new CEM initiatives.

- Realign the working relationship with the post office based on a formal fee structure for services provided. Develop more efficient, streamlined routines for handling post office deposits, and agree to new physical arrangements for deposit-taking activities.

- Conduct a feasibility study for establishing a giro-bank operation. Assuming a positive outcome and appropriate authorization, formulate an action plan and establish giro-bank facilities.

APPENDIX A

Proposed Organization Chart

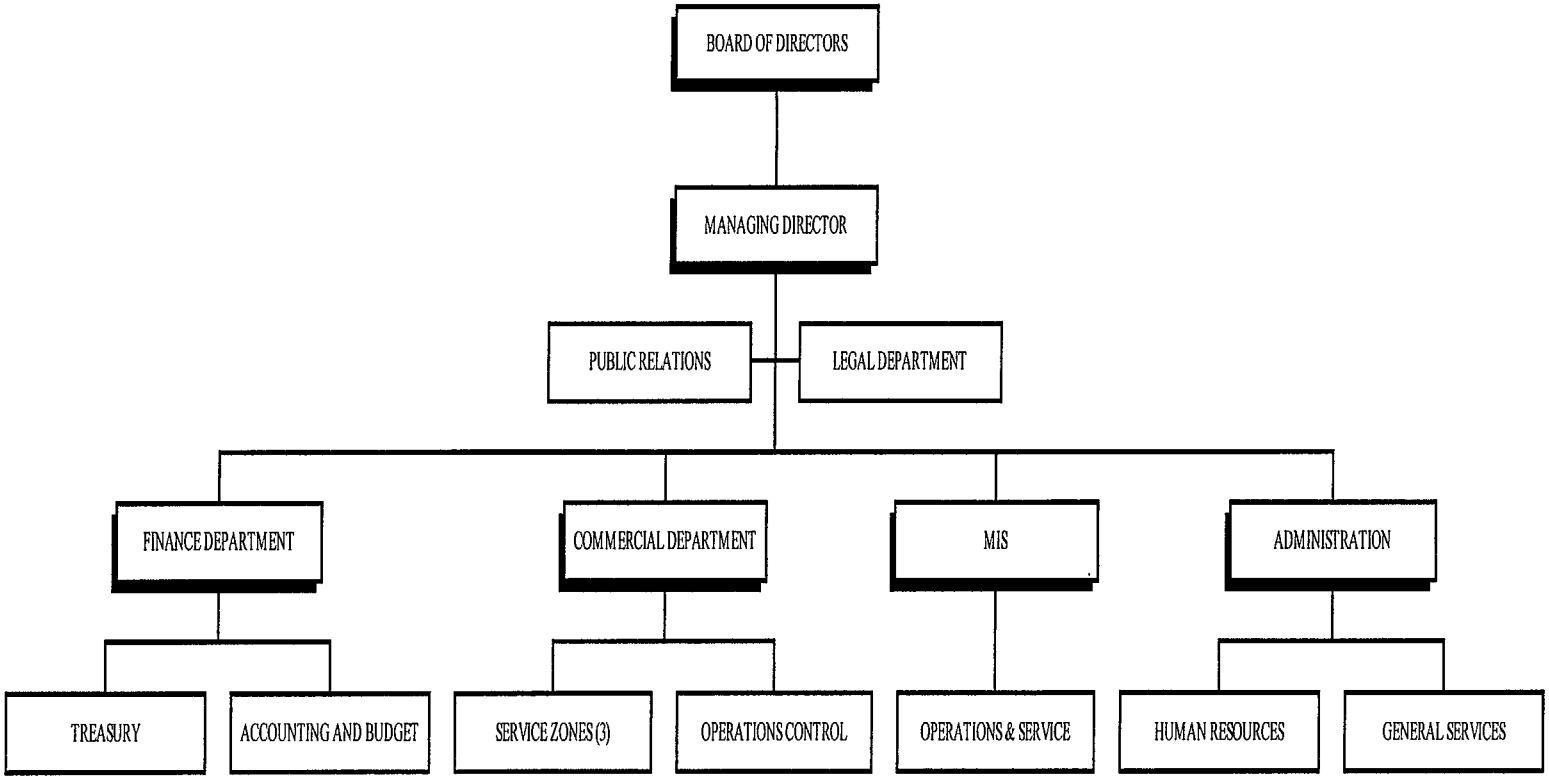
Appendix 'A'

CAISSE D'EPARGNE DE MADAGASCAR

CEM

ANTANANARIVO

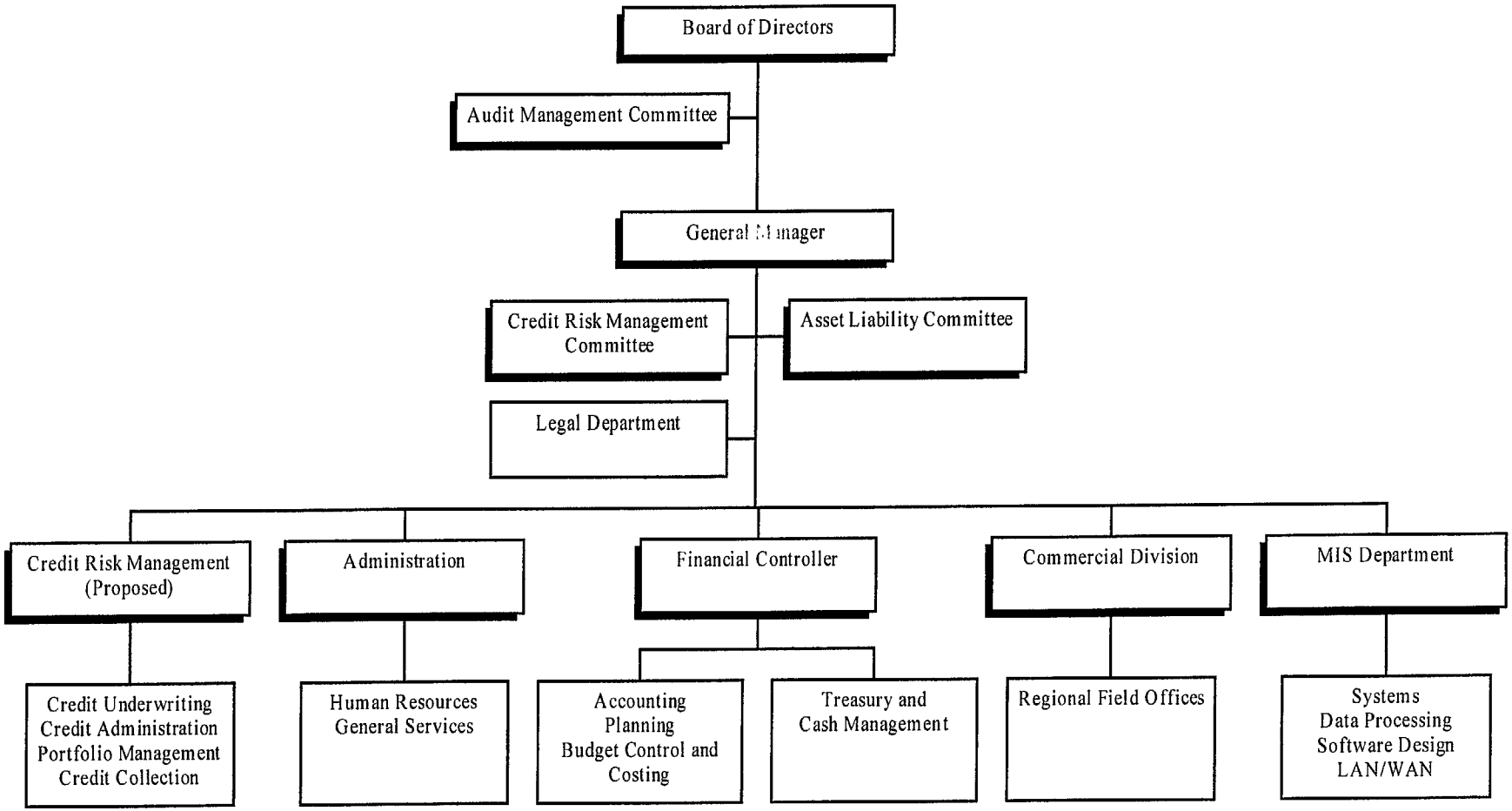
(PROPOSED BY CEM 5/99)



Appendix A

S.A. CAISSE D'EPARGNE DE MADAGASCAR

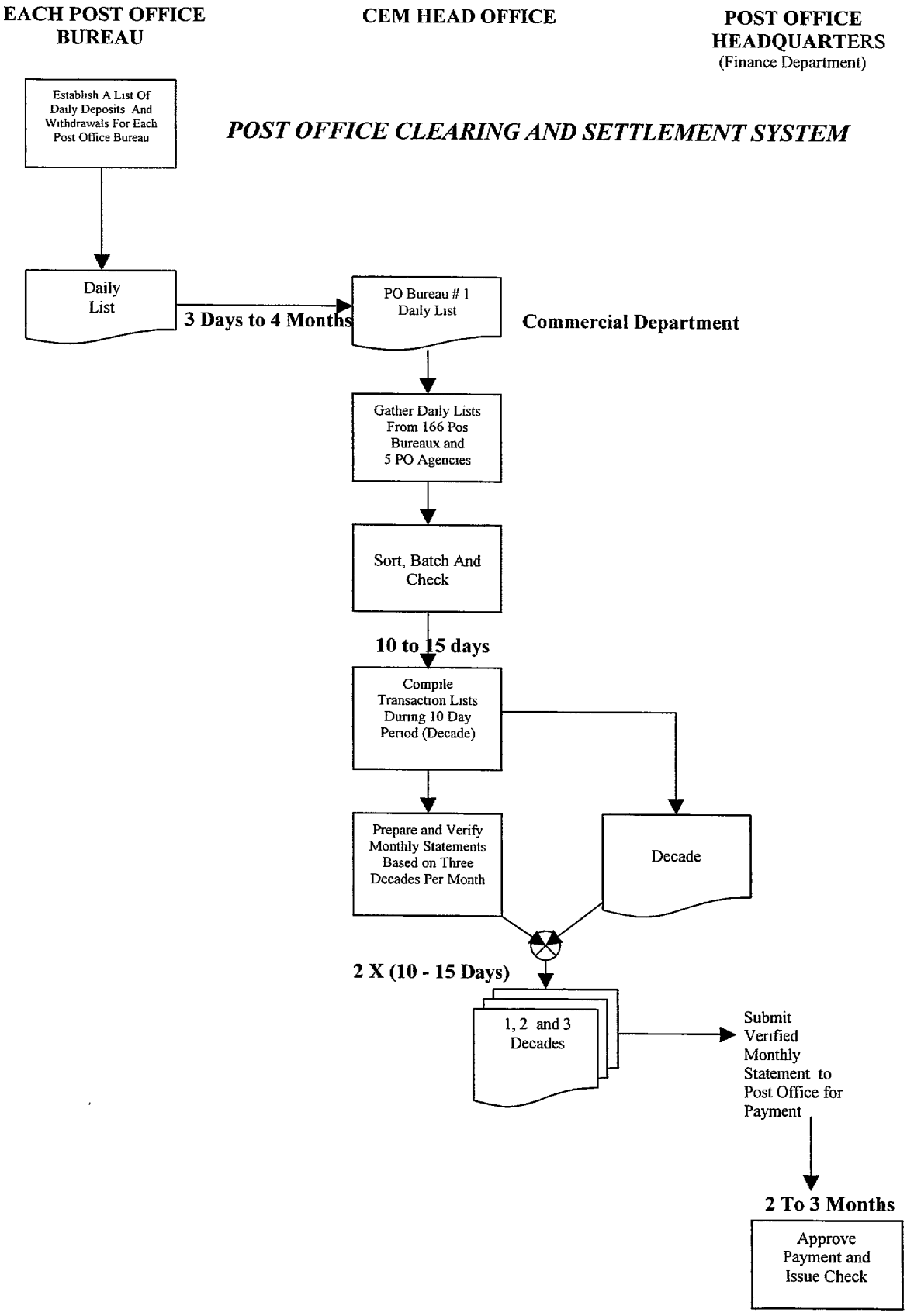
SACEM
ANANANARIVO
RM
6/99



APPENDIX B

Post Office Settlement and Clearing System

APPENDIX B


EACH POST OFFICE BUREAU
CEM HEAD OFFICE
POST OFFICE HEADQUARTERS
(Finance Department)
Establish A List Of Daily Deposits And Withdrawals For Each Post Office Bureau
POST OFFICE CLEARING AND SETTLEMENT SYSTEM
Daily List
3 Days to 4 Months
PO Bureau # 1 Daily List
Commercial Department
Gather Daily Lists From 166 Pos Bureaux and 5 PO Agencies
Sort, Batch And Check
10 to 15 days
Compile Transaction Lists During 10 Day Period (Decade)
Prepare and Verify Monthly Statements Based on Three Decades Per Month
Decade
2 X (10 - 15 Days)
1, 2 and 3 Decades
Submit Verified Monthly Statement to Post Office for Payment
2 To 3 Months
Approve Payment and Issue Check

APPENDIX C

Technology

APPENDIX C-1

1) LOGICIELS EPARGNANT

LOGICIELS	FONCTIONNALITES
Gestion des Operations(Livret d'espargne) GESOP Direction Commerciale Direction Informatique	Controle de la validite et enregistrement des operations journalieres avec mise a jour des situations individuelles. Extraction des operaions effectuees en-dehors de la scetion prope. Recapitulation des operations effectuees en dehors de la section propre Recapitulation des operations par nature, par scetion et par periode Mise a jour systematique de toutes les situations individualles. Description: Maintenance Parametres, Tables sections, table bureaux Saisie Premier Versement, Versemnt, Remboursement Synthese: Saisie balance, Calcul, Verification. Tenue a jour situations individuelles: journaliere, Debut d'annee. Consultation: Situation individuelle Avoir negatif Mouvements Redressement divers Utilires: sauvegarde, restauration, trace, Mot de passe
Gestiondes Renseignements relatifs aux epargnants. GESRE Direction Commerciale Direction Informatique	Recherche des informations qui peuvent generer des modifications dans les conduites des operations chaque epargnant (mineur, divorce) Etat des demandes qui sera envoye a chaque bureau pour reconfirmation et contenant les renseignements des demandes d'une periode. Etat des autorisations distribue a chauqe bureau concerne Description: Mise a jour des fichiers table Mise a jour et consulatation des fiches epargnants Edition: catalogue des epargnants Liste des nouveaux epargnants Changement de section Livret perdu Compte prescrit Compte inactif La mise a la disposition d'utilitarties
Statistique Direction Informatique	Statisques journalieres detailees par nature et bureau Statistques journalieres glbales Statistques mensuelles par nature et bureauStatistques mensuelles par nature et section Statisques annuelles Statistiques annuelles par nature et faritany

	Statisque mensuelle du nombre et des mouvements Statisques par tranche d'avoir Etat recapitulatif des avoris moyens Statistiques par tranche d'age Statistiques par categorie socioprofessionnelle
Mouvements des Operations (MOP) Agences et bureaux	Ouverture de compte Depot Retrait Fermeture de compte Saisie situation avoirs Changement de Section Remplacement d'un livret perdu/epuise Mise a jour de la situation a partir des extraits

8) LOGICIELS DE GESTION

LOGICIELS	FONCTIONNALITES
Situation CCP Agent Comptable	Situation du compte CCP de la CEM Saisie debit et Credit. Edition et recherche
Stock Direction de l'Administration Generale	Tables: Fournisseur, Article, Famille, Magasin, utlisateur parametres Commandes: Prevision d'achat, Demande d'achat, Bon de commande, Fecture, Paiement Stocks Edition: Articles, Fournisserus, Commandes, Stocks, Inventaire. Utilitaries
Paie Direction de l'Administration Generale	Traiter les salaries du personnel de la CEM Saisie des elements permanents Traitement salarie Edition des etats reglementaux (Journal, Bulletin, IGR, CNAPS, CRCM) Transfert automatique des ecritures vers la comptabilite
Systeme de gestion Comptable Informatisee	Budgetaire: Permettre l'etablissement d'un budget previsionnel et avoir un suivi permanent entre les previsions et les realisations: Saisie Budget previsionnel * Edition budget
Direction Financiere	Edition des ecart entre budget et realisation (Par section et par nature) Generale: Comptabilisation du patrimoine, des flux monetaires et financiers de la CEM: Saisie brouillard Traitement Edition des Etats (Brouillard, Journal, Grand livre, Balance, Etats Financiers Analytique: Repartition analytique des charges et prouits de la CEM

	Saisie des repartitions Traitement Edition (Repartition des charges, repartition des produits, resultats par produit et par section)
Tresorerie Direction Financiere	Avoir une suivi des flux monetaire et financiers de la CEM (envers toutes les autres entities financieres: Banque, CCP, tresor, Agence) Saisie des paiements fournisserus Saisie des autres mouvements en malgache et mouvements en devises. Saisie des BTA Transfert automatique des ecritures generees vers la Comptabilite Generale Edition des Etas correspondants

APPENDIX C-2

LISTE DES TERIELS ET LOGICIELS LIVRES A LA CAISSE D'EPARGNE DE MADAGASCAR(US AID – FMD Project)

MATERIELS

Nature	Caracterstiques Techniques	Numero de serie Model/date de fabrication	Date de livraison	Lieu de livraison
1 Serveur Dell Power Edge 466XE Unite centrale Souris Ecran Dell Clavier	Processeur 486/DX2-66 16 MO RAM 4 disques de 500 MO 1 Lecteur CD-ROM 2 lecteurs 3 '1/2 2 cartes reseaux 2 bloc alimentation 10 disquettes utilitaires	4 PKWS DCA50421213 7039984 Model PE466 date de fabrication: 04/04/1995	Juin 95	Direction de la Caisse d'Epargne Tsaralalana
7 PC Dell Optiplex 450D/MXE avec chacun: Unite centrale Ecran Clavier Souris	486/DX2-50 8 MO RAM 2 disques de 500 MO 2 lecteurs 3'1/2 1 lecteur DAT 4mm carte modem carte reseau avec RJ45 3 disquettes utilitaires 1 mini-vacuum 1 port parrallele 2 ports series 2 cordons	4PIXN, 4PIXD, 4PIXS, 4PIXF, 4PIXG, 4PIXG, 4PIXX, 4PIXR 7039995, 7040076, 7040079, 7040071, 7040080, 7040081, 7039992 852110087, 852110089, 852110026, 852110085, 852110082, 852110080, 852110022 LCA504211236, LCA504211220, LCA504211256, LCA504211217, LCA504211202, LCA504211224, 00638966	Juin 95	Direction de la Caisse d'Epargne Tsaralalana
3 PC portables Dell 486DX33 aves chacun: ecran couleur, adapteur, sacoch de transport 2 batteries dont 1 spare	DX33 8 MO de RAM 340 de disque lecteur de disquette 3'1/2 1 port parallele 1 port serie	3MBXB9, 3MX99, 3MX8R, model 486DX 33 date de fabrication:	Juin 95	Direction de la Caisse d'Epargne Tsaralalana
3 imprimantes NEC P9300 avec chacun: manuel cordon transformateur		8851, 9180, 8816	Juin 95	Direction de la Caisse d'Epargne Tsaralalana
3 onduleurs APC 1250				Direction de la Caisse d'Epargne Tsaralalana
6 modems Hayes cordon Documents Hayes Disquettes	Accura 144 + Fax 144 1440 bauds	A0465300K827, A0365300K111, A0365300K109, A0365300K994, A0365300K984, A0365300K423		Direction de la Caisse d'Epargne Tsaralalana
249 cartouches DAT4			Juin 95	Direction de la Caisse d'Epargne

1 disque dur de 260MO pour PC portable (spare) 3 bolcs alimentation 300W 1 lecteur disquette 3'1/2 avec berceau 16 connecteurs T 10 bouchons terminateurs 100 feat cable coaxial 1 repair toolkit 1 multimetre 1 crimping tool 42 connecteurs BNC 10 cordons d'alimentation 10 cables parallele 1 carte digiboard avec cable carte				Tsaralalana
6PC Dell optiplex 450 D/MXE: 6 unites centrals, 6 ecrans 6 claviers 6 souris	8MO de RAM 2 disques de 500 MO 2 lecteurs 3'1/2 1 lecteur DAT 4mm 1 carte modem 1 carte reseau 3 disquettes 1 mini-vaccum 1 port parallele 2 ports series 2 cordons	UC: 4PIY2, 4PIXB, 4PIXL, 4PIXH, 4PYS, 4PIYO Ecran: 2004066, 7040070, 79793A0HMU35, 79793A021X25, 7039996, 7039987	22/11/96 02/01/97 23/01/97 20/02/97 27/02/97 02/04/97	Fianarantsoa Antsirabe Mahajanga Tule Fort-Dauphin Tamatave
6 imprimantes NEC P9300 avec chacun: manuel cordon transformateur		585008858, 585009458, 585009528, 585008805, 585009531, 585009623	22/11/96 02/01/97 23/01/97 20/02/97 27/02/97 02/04/97	Fianarantsoa Antsirabe Mahajanga Tule Fort-Dauphin Tamatave
6 onduleurs APC 1250		594114345273, 594114345353, 594114345348, 594114345253, 594114345215, 594114345248	22/11/96 02/01/97 23/01/97 20/02/97 27/02/97 02/04/97	Fianarantsoa Antsirabe Mahajanga Tule Fort-Dauphin Tamatave
1 PC Dell optiplex 450D/MXE dont: - unite central		4PIY7	28/04/97	Diego-suares
1 imprimante NEC P9300: manuel cordon transformateur		585008707	28/04/97	Diego-suares
2 PC IBM PC 340 pentium 133 dont chacun: unite centrale ecran souris 2 imprimantes Epson	8 MO de RAM 1 diskues de 850 MO 1 lecteurs 3'1/2 1 port parralele 2 ports series 2 cordons	Model PC 340 555XNWM, 555XNWC, 55MF508, 55MG189 2S1Y005542, 2S1Y005918	05/05/97	Sambava Antsohihy

FX2170 avec chacun cable parallele 2 onduleurs merlin gerin Pulsar ES7		394637778, 394634570		
4 IBM PC 340 pentium 133 don't chacun: unite centrale ecran souris 4 imprimantes Epson FX2170 avec chacun cable parallele 4 onduleurs merlin gerin Pulsar ES7	8 MO de RAM 1 diskues de 850 MO 1 lecteurs 3'1/2 1 port parralele 2 ports series 2 cordons	555XNWF, 555XNWM, 555XNWK, 555XNWD 55MH191, 55MH188, 55MF518, 55MF028 251Y005908, 251Y005910, 251Y005912, 251Y005906 394632019, 394637772, 394637773, 394637779	09/07/97	Andravoahangy Tsiroanomandidy Ambatondrazaka Manakara

LOGICIELS

1 Cheyenne Tape Backup software 2 Packages Clipper 5 1 Novell 4.1 pour 25 utilisateurs avec CD-ROM 1 package netware connect 2.0 12 packges Pctools pour windows 10 packages windows 3.1 (manuel et disquettes) 10 packages Msdos 6.22 10 packages Ms office PRO 95 1 package Ms project 8 packages Sytos+ 7 Smartcom Fax for windows 7 hayes smartcom for windows 8 disquettes utilitaires		Clipper 5.2, 1993	June 95	Direction de la Caisse d'Epargne Tsaralana
7 packages office Pro 7 packages Msdos 7 packages Windows 7 packages Sytos plus 7 packages pctools			22/11/96 02/01/97 23/01/97 20/02/97 27/02/97 02/04/97 28/04/97	Fianarantsoa Antsirabe Mahajanga Tulear Fort-Dauphin Tamatave Diego-suares
Supplements: 6 adapteurs pour modem 3 claviers azerty pour portable			Juillet 1995	Direction de la Caisse d'Epargne Tsaralana

6 cables alimentation 1 carte modem 1 lecteur 3,1/2 1 lecteur DAT 4 1 DD 530 MO bad 1 mini-vaccum 1 package pictor 1 package pctools 1 package MsProject 1 package office pro 1 package Msdos 1 package Mswindows 1 Dell user guide 16 diskuettes utilitaires				

LISTE DES MATERIELS ET LOGICIELS CAISSE D'EPARGNE DE MADAGASCAR
(Finances par la CAISSE D'EPARGNE elle meme)

MATERIELS

Nature	Caracteristicques techniques	Numero de serie Model/date de fabrication	Date de livraison	Lieu de Livraison
Un mini-ordinateur NCR Tower 32/700 multiposte unite centrale 7 terminals NCR 4103 1 imprimante NCR 6450 8 claviers Logiciels: UNIX SystemV RMCOBOL-85	Processeur 68000 64 MO RAM 340 Mo disques 1 lecteur cartouche 1 lecteurs 5'1/4	Serie UC 21591976 Tracer #5037 Annee de fabrication: 1989 Serie terminals: #89007105 a #89007108 et #89007110 a #89007112 Annee de fabrication 1989 Serie imprimante: 462167049 Class 6450 Model 01/01 serie System V.3 System version 2 Copyright 1988 AT&T Version 2.02 for UNIX system V Copyright 1986	1991	Direction de la Caisse d'Epargne Tsaralana
4 PC RDI 386sx chacun: unite centrale ecran souris Clipper5	Processour 80386 4 MO de RAM 1 diskue de 40 Mo 1 lecteur 3'1/2 1 port parallele 1 port serie 2 cordons 1 lecteur cartouche	Serie #92201 92202 92203 92204 Nantucket 5.0 serie # 210191 version 5.0	1992	PTT Analakely, Antaninarenina, Ambanidia et CEM Tsaralalana
9 PC Dell pentium 133 Mhz chacun: unite centrale ecran clavier souris CD Windows 95	Pentium 133 Mhz 16 MO de RAM 1 diskue de 1 Go 1 lecteur 3'1/2 1 lecteur CD-ROM 1carte reseau 1 port parallele 2 port series 2 cordons	Model Dell optiplex Gs 133 serie # L67W6, #L85BM, L67VN, #L85BR, L67VM, #L85CL, L85BY, #L85CZ, L85BV Date de fabrication:	Avril, 1997	Direction de la Caisse d'Epargne Tsaralana
3 PC Dell 166 Mhz chacun: Unite centrale	Pentium 166 Mhz 16 MO de RAM 1 disque de 1 Go	Model Dell Optiplex Gs 166 L8ZY3 L8ZY7	Avril, 1997	Direction de la Caisse d'Epargne Tsaralana

Ecran Clavier Souris CD Windows 95	1 lecteur 3'1/2 1 lecteur CD-ROM 1carte reseau 1 port parallele 2 port series 2 cordons	L8ZY8		
2 Portable Toshiba 110 CS avec Windows 95	Pentium 100 Mhz 8 MO de RAM 1 disque de 810Go 1 lecteur 3'1/2 Port PCMCIA port parllele 1 port parallele 1 port serie	Model Sattelite 110 CS Serie #02759922 #02755374	Avril, 1997	Direction de la Caisse d'Epargne Tsaralana
10 PC Compaq Deskpro 1000 chacun: unite centrale ecran compaq clavier compaq souris compaq	Pentium 200MMx 32 MO de RAM 1 disque de 2,1 Go 1 lecteur 3'1/2 1 lecteur CD-ROM 1 port parallele 2 port series 2 cordons windows 95 preinstalle	4821BWF20837-37 4821BWF20239-37 4821BWF20398-37 4821BWF20547-37 4821BWF20197 4821BWF20238 4821BWF20456 4821BWF20549 4821BWF20172 4809BWF20102	01/09/98 dont 4 le 15/12/98 et 1 le 20/07/98	Direction de la Caisse d'Epargne Tsaralana
2 Portables Toshiba 310 CDS avec Windows 95	Pentium 200 Mhz 32 MO de RAM 1 disque de 2,1Go 1 lecteur 3'1/2 lecteur CD-ROM Port PCMCIA port parllele 1 port parallele 1 port serie	Serie #78591701E_3938 #78591702E_3938	Avril, 1997	Direction de la Caisse d'Epargne Tsaralana
1 Portabile Compaq Armada 1590DT		3862A414	11 Feverier, 1999	Direction de la Caisse d'Epargne Tsaralana
5 imprimantes Epson LQ2170		2S3Y021001 2S3Y021576 2S3Y021089 2S3Y021574 2S3Y021573	29/10/98 dont 1 le 15/12/98	Direction de la Caisse d'Epargne Tsaralana
1 imprimantes HP LazerJet 4000N		NLEV156105-3841	16/11/98	Direction de la Caisse d'Epargne
1 imprimante a jet d'encre XEROX XJ4C		2970155085	1998	Direction de la Caisse d'Epargne Tsaralana
1 Serveur Compaq Proliant 1600 unite centrale souris ecran compaq clavier	Processour Pentium II 400 Mhz 256 MO RAM 1 disques de 9 Go 1 lecteur CD-ROM 1 lecteurs 3'1/2 carte reseau integre utilitaires	8849BWT10338_39	Avril, 1997	Direction de la Caisse d'Epargne Tsaralana
28 onduleurs APC Smart-UPS 2 smart-ups 700Va 24 smart-ups 420Va			08 Fevrier 1999	Direction de la Caisse d'Epargne Tsaralana

1 smart-ups 1000Va 1 smart-ups 2200Va				
3 PC Compaq Deskpro 2000 chacun: unite centrale ecran compaq clavier compaq souris compaq	Pentum 233MMx 16MO RAM 1 disque de 2,1 Go 1 lecteur 3'1/2 1 lecteur CD-ROM 1 port parallele 2 ports series 2 cordons windows 95 preinstalle carte son	8810BNT40744 8810BNT40747 8811BNT40123	13/04/99	Direction de la Caisse d'Epargne Tsaralana
2 PC Compaq Deskpro 2000 chacun: unite centrale ecran compaq clavier compaq souris compaq	Pentum 200MMx 16MO RAM 1 disque de 2,1 Go 1 lecteur 3'1/2 1 lecteur CD-ROM 1 port parallele 2 ports series 2 cordons windows 95 preinstalle carte son	8736HWC60441 8736HWC60410	13/04/99	Direction de la Caisse d'Epargne Tsaralana
1 PC Compaq Deskpro EP/SB avec: unite centrale ecran compaq clavier compaq souris compaq	Celeron 266 MHz 16 MO de RAM 1 disque de 2,1 Go 1 lecteur 3'1/2 1 lecteur CD-ROM 1 port parallele 2 ports series 2 cordons windows 95 preinstalle carte son	8824BYV31348	13/04/99	Direction de la Caisse d'Epargne Tsaralana
1 PC Compaq Presario 5030 avec: unite centrale ecran compaq clavier compaq souris compaq	Pentum II 300 Mhz 64 MO de RAM 1 disque de 4 Go 1 lecteur 3'1/2 1 lecteur CD-ROM modem integre 1 port parallele	8829BY351464	Avril, 1997	

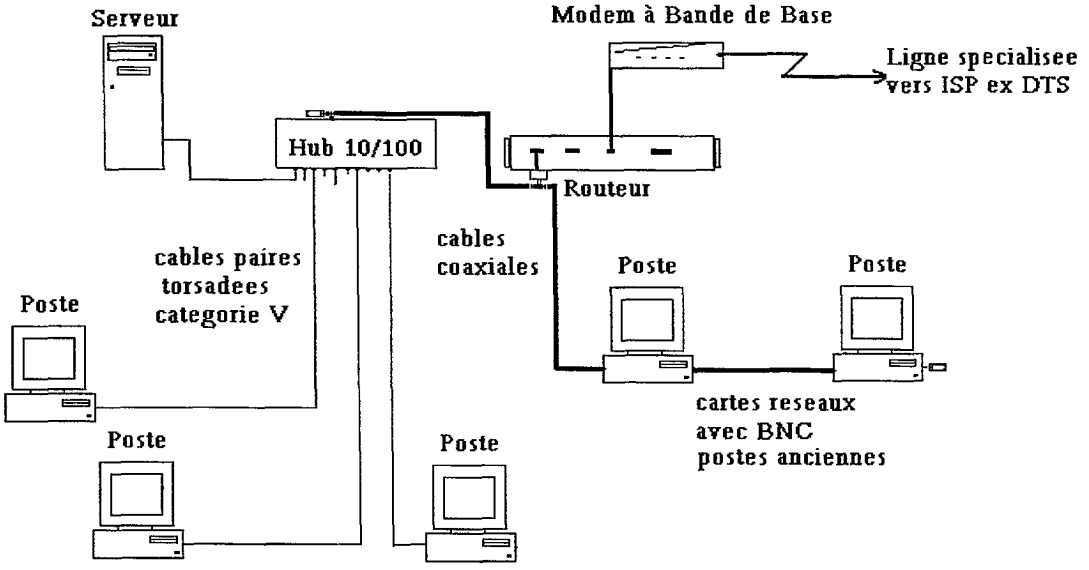
APPENDIX C-3

- Traitement plus léger , fiable et quasiment à temps réel
- Possibilités de communiquer avec le monde entier
- Possibilités de se former et de s'informer sur Internet
- Possibilités de créer de sites Web personnel pour le CEM.

Proposition d'une Topologie :

Considérations :

- On gardera le câblage existant pour les postes anciennes (Traitements lents)
- On installera dans les postes récentes des cartes à haut débit (100 Mb/s)
- On utilisera un HUB 10/100 autoswitch avec une option sortie BNC
- Le Serveur de communication utilisera un carte 100 Mb/s et sera configuré avec un Logiciel de messagerie qui gère à la fois Intranet et Internet
- Un Routeur servira d'interface entre le réseau local et le réseau étendu.
- Pour avoir un accees multiple vue de l'extérieur ce serveur sera connecté à une ligne spécialisée avec un ISP par ex : DTS

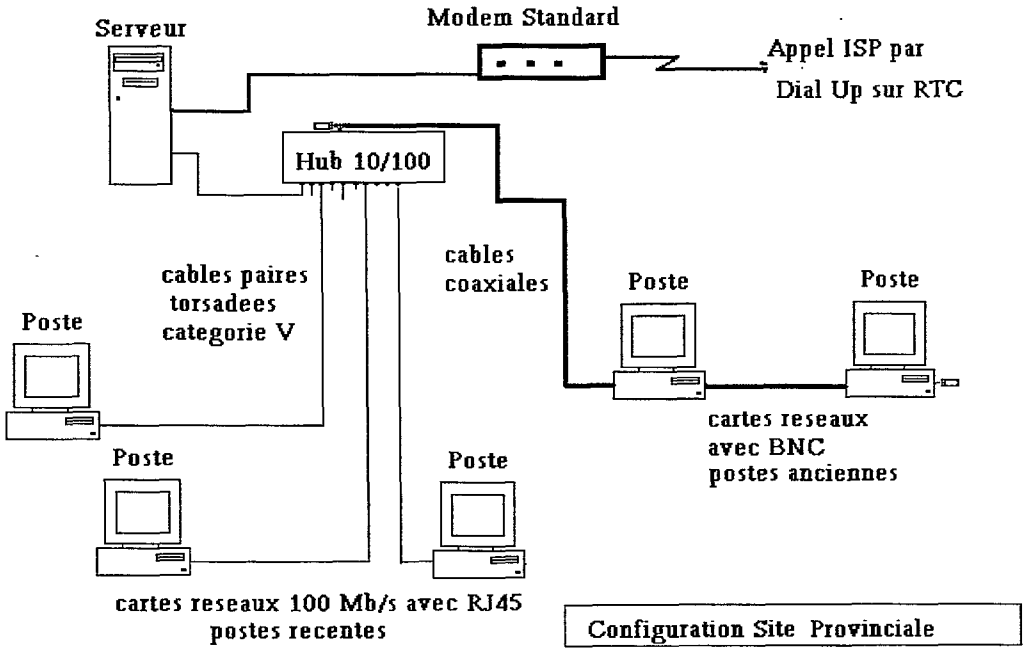


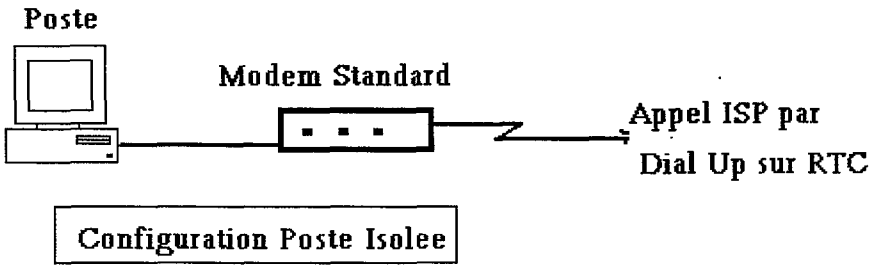
Configuration Site Centrale TANA

APPENDIX C-4

Configuration des Sites en Provinces :

Considérations :
Dans le cas ou il serait nécessaire de mettre en place un réseau local ,on utilisera un Serveur avec un HUB 10/100.
Sinon on utilisera un poste relié à une ligne téléphonique par un Modem standard
L'appel se fera par un Dial up vers le ISP(ex DTS 2968666).





APPENDIX C-5

Management Information Systems

CEM must have quality information at all levels to assist in making informed business decisions, to facilitate the effective management and control of operations, and to facilitate external reporting.

Management information systems are arrangements of information about an institution's business, the state of its affairs, and the risks to which it is exposed. Data are produced and supplied to management or groups of staff within an organization in a form that enables them to monitor, review, and act on the information in carrying out their responsibilities. Data are also needed by external users, such as the Central Bank of Madagascar and shareholders.

Reports and information generated from an effective management information system may also assist management to monitor compliance with internal controls, thereby providing reasonable assurance that controls are being complied with and are functioning appropriately.

Management will develop and maintain comprehensive management information systems so that sufficient, timely, and relevant information can be produced that will enable CEM to be prudently managed and controlled. At a minimum, CEM's management information system must ensure that relevant, accurate, and timely information is reported to appropriate persons to enable them to:

1. Identify, quantify, assess, and monitor its business activities, exposure to risk, financial position, and performance and to take effective decisions; and

2. Monitor the effectiveness of and compliance with institutional and procedural controls and report any exceptions to them.

The frequency with which information is prepared, its level of detail, and the amount of narrative analysis will depend on the level of authority to which it is addressed. Management information reports need to be prepared frequently enough to provide timely and relevant information about the business area or risk reported on. Internal control deficiencies need to be reported to individuals who have appropriate authority to rectify a situation. Serious deficiencies in policies, procedures, or controls should be brought to the attention of senior management, the audit function, and the board of directors.

It may be appropriate for some information to be presented as activity reports showing actual business activity or risk positions against norms, plans, or position limits or as exception reports that highlight exceptions from agreed limits.

Management information systems are to be reviewed regularly to assess the current relevance of generated information and the adequacy and quality of the system's performance over time.

Appendix C-6

Management Information Systems

Caisse d'Epargne de Madagascar

TECHNOLOGICAL CAPITAL BUDGET

ITEMS		COST US$
1) OUTSOURCE – Conversion of computer application into Database environment using a local firm as an out-source 2 men day = $100.00 x 20 days x 6 applications		**$12,000.00**
2) LIST OF SOFTWARE -Off-shelf		
* Erwin Case Tool version 5.6 (one users)	$	2,500
* Windows NT version 4.00 (50 users)	$	1,495
* SQL Server MS version 6.6 (50 users)	$	7,388
* Visual Studio Enterprises version 6.00	$	899
* Back Office server version 4.00	$	3,600
* Logicel Firewall (Internet) 2 licenses	$	2,400
* Office Professional MS version 4.3	$	299
* Antivirus Macfee for network version 3.5	$	200
* Norton Utilities (Norton Systems works)	$	96
* Corel Drawings version 8.00	$	229
Total of software	**$**	**19,106**
3) HARDWARE NEW AGENCIES - six desktops ($1,850.00 each)	$	11,100
* Configuration: Pentium II 300 MHz, 32 Ram Ultra Wide SCSI Drive controller, 10/100 PCI UTP/Coax, Hard Drive 4.3 GB		
* Three 54K modem US Robotics ($147.00 each)	$	441
* Three Printer LaserJet 6L ($350.00 each)	$	1,050
Total hardware for new agencies	**$**	**12,591**
4) UPGRADE HARDWARE		
* Communication server configuration: Pentium II 350 MHz 64 RAM, Ultra Wide SCSI, Drive controller, 10/100 PCI HD9.1	$	3,335
* Ten desktop PCs ($1,850.00 each)	$	18.500
* Configuration: Pentium II 300 MHz 32 RAM. Ultra Wide SCSI, Drive controller, 10/100 PCI HD4.3		
* Six 54K modem US Robotics ($147.00)	$	882
* Six Printer LaserJet 6L ($350.00 each)	$	2,100
Total upgrade hardware	**$**	**24,817**
5) WIDE AREA NETWORK (WAN) INTRANET		
* Exchange Server software version 5.5 10 users	$	1,199
* HUB 24 ports – Super-track II Dual Speed HUB 500-24 10/100	$	1,400
* Router AUI, 2 Sync	$	1,699
* Cables pairs. PVC unshielded 4 pairs 24 AWG ($99.00 role/40 feet)	$	300
* Connector R-J45 $3.00 pack of 10 x 9 packs	$	90
* Transceiver RJ45	$	114
* Modem External US Robotics 56K	$	147
* Network card PCI Adapter 10/100 (40 x $23.00 each)	$	920
* Lease dedicate phone line DTS ($550.00 per months x 12)	$	6,600
Total Wide Area Network (WAN) INTRANET	$	**12,469**
6) TRAINING		
* Visual Basic (5 people)	$	1,500
* Windows NT version 4.00	$	1,200
* Other IT courses	$	3,000
Total training	**$**	**5,700**
	$	**86,683**

APPENDIX D

Performance Criteria

APPENDIX 'D'

(Malagasy Francs)

CAISSE D'EPARGNE DE MADAGASCAR

ASSUMPTIONS FOR PROJECTION OF 1999 FINANCIAL STATEMENT

Percentage of increase in savings deposits	10.00%
Increase in savings deposits	9,781,484,574
Increase in number of accounts	12.00%

PROJECTED COSTS OF FUNDS

		Ordinary accounts		Stable accounts	Special accounts
Interest rates		4.50%		5.20%	12.00%
Percentage of total deposits 99		40.00%		49.00%	11.00%
	98	42.35%		54.58%	3.07%
	97	45 80%		54.20%	0.00%
	96	42.78%		57.22%	0.00%
99 average costs of funds		5.67%			

PROJECTED AVERAGE RETURN ON FUNDS

	Actual 1/1 - 5/30		Projected 6/1 - 12/30	ge proj rn on fu	Percentage of Total deposit
1. Treasury account	13.50%		13.25%	13.35%	86.50%
2. Treasury Bill	16.72%		16.00%	16.30%	8.00%
3. Cash	0.00%		0.00%	0.00%	3.00%
4. Dollar account	0.80%		0.80%	0.80%	1.00%
5. FMG account	1.00%		1.00%	1.00%	1.50%
99 average return on funds				12.88%	100.00%

Net increase in fixed assets in 1999	500,000,000
Increase in personnel charges	24.00%

	Services Charges Actual Nov. '98 to March '99		Service Charges per Month April '99 to Dec. '99
Post Office Service Charges	245,456,990		50,000,000

(Malagasy Francs)

CAISSE D'EPARGNE DE MADAGASCAR

INCOME STATEMENT

	12/31/99		12/31/98	
Financial revenue	16,496,961,029	99.7%	10,973,880,723	99.6%
Other operating revenues	47,960,001	0.3%	0	0.0%
Non-reccuring revenues	0	0.0%	48,816,107	0.4%
Recovery of provision	0	0.0%	0	0.0%
Grant share	0	0.0%	0	0.0%
Financial Income	**16,544,921,030**	100.0%	**11,022,696,830**	100.0%
Less Interest charges	**6,098,560,002**	36.9%	**4,691,920,203**	42.6%
Net Interest Income	**10,446,361,029**	63.1%	**6,330,776,627**	57.4%
Cost of supplies used	1,008,716,302	6.1%	900,639,555	8.2%
External services expenses	738,109,975	4.5%	659,026,763	6.0%
Other external services expenses	1,852,892,064	11.2%	1,654,367,914	15.0%
Taxes	2,500,000	0.0%	2,457,020	0.0%
Personnel charges	1,638,779,990	9.9%	1,321,596,766	12.0%
Reimbursement of Service Charges	695,456,990	4.2%	0	0.0%
Other operating expenses	0	0.0%	0	0.0%
Depreciation	1,233,508,793	7.5%	1,183,508,793	10.7%
Provision	0	0.0%	0	0.0%
	7,169,964,113	43.3%	**5,721,596,811**	51.9%
Non recurring expenses	**5,000,000**	0.0%	**9,112,300**	0.1%
Net Income	**3,271,396,916**	19.8%	**600,067,516**	5.4%

CAISSE D'EPARGNE DE MADAGASCAR

BALANCE SHEET

ASSETS	12/31/99		12/31/98	
Treasury account	110,678,170,311	71.6%	105,541,929,279	78.1%
Treasury Bill	10,236,131,358	6.6%	1,600,000,000	1.2%
Cash	3,838,549,259	2.5%	3,807,055,110	2.8%
FMG bank account	1,919,274,630	1.2%	1,712,611,810	1.3%
Dollar bank account	1,426,238,689	0.9%	915,921,672	0.7%
Pending account	750,000,000	0.5%	864,575,785	0.6%
Savings payable	0	0.0%	0	0.0%
Adjustment account	100,000,000	0.1%	109,024,670	0.1%
Loans to Personnel	0	0.0%	0	0.0%
Accounts receivable	1,500,000,000	1.0%	1,458,848,871	1.1%
Sundry supplies	0	0.0%	0	0.0%
Interest receivable	16,496,961,029	10.7%	10,868,547,059	8.0%
Fixed assets	12,450,070,423	8.1%	11,950,070,423	8.8%
Less accumulated depreciation	4,903,164,644	3.2%	3,669,655,851	2.7%
Net fixed assets	7,546,905,779	4.9%	8,280,414,572	6.1%
Sundry receivables	0	0.0%	0	0.0%
	154,492,231,056	100.0%	135,158,928,828	100.0%

LIABILITIES				
Savings accounts	107,596,330,310	69.7%	97,814,845,736	72.4%
Savings Transactions in Transit (via P.O.)	25,889,003,132	16.8%	25,889,003,132	19.2%
Interest Earning Liabilities	***133,485,333,442***	**86.5%**	***123,703,848,868***	**91.5%**
Interest payable	6,098,560,002	4.0%		0.0%
Suppliers	300,000,000	0.2%	335,942,734	0.2%
Personnel	0	0.0%	0	0.0%
Social benefits	0	0.0%	0	0.0%
Sundry payables	1,500,000,000	1.0%	1,380,958,798	1.0%
Next year's recorded revenue	0	0.0%	47,960,001	0.0%
Grants received	960,698,579	0.6%	960,698,579	0.7%
Grants included in net income	0	0.0%	0	0.0%
Social funds reserve	7,755,783,037	5.0%	7,755,783,037	5.7%
Other reserves and balance carried over	373,669,295	0.2%	0	0.0%
Results to be affected	600,067,516	0.4%	373,669,295	0.3%
Net income	3,271,396,916	2.1%	600,067,516	0.4%
STOCKHOLDER'S EQUITY	***12,000,916,764***	**7.8%**	***8,729,519,848***	**6.5%**
	154,345,508,786	100.0%	135,158,928,828	100.0%

APPENDIX 'D'

CAISSE D'EPARGNE DE MADAGASCAR

10% Growth

PERFORMANCE CRITERIA

Performance Measure	Projected December 31, 1999	Actual December 31, 1998
Return on Assets %	2.1%	0.4%
Return on Equity Capital %	27.3%	6.9%
Net Spread %	7.0%	5.9%
Net Interest Margin	2.4%	1.1%
Net Income Per Staff Member FMG	21,242,837	4,615,904
VAPE in FMG	31,884,266	14,782,033
Equity to Assets %	7.8%	6.5%

APPENDIX E

Performance Criteria, Financial Assumptions and Pro-forma Statement — 10 Percent Growth

APPENDIX 'E'

(Malagasy Francs)

CAISSE D'EPARGNE DE MADAGASCAR

ASSUMPTIONS FOR PROJECTION OF 1999 FINANCIAL STATEMENT

Percentage of increase in savings deposits	15.00%
Increase in savings deposits	14,672,226,860
Increase in number of accounts	12.00%

PROJECTED COSTS OF FUNDS

		Ordinary accounts		Stable accounts	Special accounts
Interest rates		4.50%		5.20%	12.00%
Percentage of total deposits 99		40.00%		49.00%	11.00%
	98	42.35%		54.58%	3.07%
	97	45.80%		54.20%	0.00%
	96	42.78%		57.22%	0.00%
99 average costs of funds		5.67%			

PROJECTED AVERAGE RETURN ON FUNDS

	Actual 1/1 - 5/30		Projected 6/1 - 12/30	ge proj m on fu	Percentage of Total deposit
1. Treasury account	13.50%		13.25%	13.35%	86.50%
2. Treasury Bill	16.72%		16.00%	16.30%	8.00%
3. Cash	0.00%		0.00%	0.00%	3.00%
4. Dollar account	0.80%		0.80%	0.80%	1.00%
5. FMG account	1.00%		1.00%	1.00%	1.50%
99 average return on funds				12.22%	100.00%

Net increase in fixed assets in 1999	500,000,000
Increase in personnel charges	24.00%

	Services Charges Actual Nov. '98 to March '99		Service Charges per Month April '99 to Dec. '99
Post Office Service Charges	245,456,990		50,000,000

(Malagasy Francs)

CAISSE D'EPARGNE DE MADAGASCAR

INCOME STATEMENT

	12/31/99		12/31/98	
Financial revenue	17,120,509,671	99.7%	10,973,880,723	99.6%
Other operating revenues	47,960,001	0.3%	0	0.0%
Non-reccuring revenues	0	0.0%	48,816,107	0.4%
Recovery of provision	0	0.0%	0	0.0%
Grant share	0	0.0%	0	0.0%
Financial Income	**17,168,469,672**	100.0%	**11,022,696,830**	100.0%
Less Interest charges	**6,375,767,275**	37.1%	**4,691,920,203**	42.6%
Net Interest Income	**10,792,702,398**	62.9%	**6,330,776,627**	57.4%
Cost of supplies used	1,008,716,302	5.9%	900,639,555	8.2%
External services expenses	738,109,975	4.3%	659,026,763	6.0%
Other external services expenses	1,852,892,064	10.8%	1,654,367,914	15.0%
Taxes	2,500,000	0.0%	2,457,020	0.0%
Personnel charges	1,638,779,990	9.5%	1,321,596,766	12.0%
Reimbursement of Service Charges	695,456,990	4.1%	0	0.0%
Other operating expenses	0	0.0%	0	0.0%
Depreciation	1,233,508,793	7.2%	1,183,508,793	10.7%
Provision	0	0.0%	0	0.0%
	7,169,964,113	41.8%	**5,721,596,811**	51.9%
Non recurring expenses	**5,000,000**	0.0%	**9,112,300**	0.1%
Net Income	**3,617,738,285**	21.1%	**600,067,516**	5.4%

CAISSE D'EPARGNE DE MADAGASCAR

BALANCE SHEET

ASSETS	12/31/99		12/31/98	
Treasury account	114,908,662,389	71.8%	105,541,929,279	78.1%
Treasury Bill	10,627,390,741	6.6%	1,600,000,000	1.2%
Cash	3,985,271,528	2.5%	3,807,055,110	2.8%
FMG bank account	1,992,635,764	1.2%	1,712,611,810	1.3%
Dollar bank account	1,426,238,689	0.9%	915,921,672	0.7%
Pending account	750,000,000	0.5%	864,575,785	0.6%
Savings payable	0	0.0%	0	0.0%
Adjustment account	100,000,000	0.1%	109,024,670	0.1%
Loans to Personnel	0	0.0%	0	0.0%
Accounts receivable	1,500,000,000	0.9%	1,458,848,871	1.1%
Sundry supplies	0	0.0%	0	0.0%
Interest receivable	17,120,509,671	10.7%	10,868,547,059	8.0%
Fixed assets	12,450,070,423	7.8%	11,950,070,423	8.8%
Less accumulated depreciation	4,903,164,644	3.1%	3,669,655,851	2.7%
Net fixed assets	7,546,905,779	4.7%	8,280,414,572	6.1%
Sundry receivables	0	0.0%	0	0.0%
	159,957,614,561	100.0%	135,158,928,828	100.0%
LIABILITIES				
Savings accounts	112,487,072,596	70.4%	97,814,845,736	72.4%
Savings Transactions in Transit (via P.O.)	25,889,003,132	16.2%	25,889,003,132	19.2%
Interest Earning Liabilities	***138,376,075,728***	**86.6%**	***123,703,848,868***	**91.5%**
Interest payable	6,375,767,275	4.0%		0.0%
Suppliers	300,000,000	0.2%	335,942,734	0.2%
Personnel	0	0.0%	0	0.0%
Social benefits	0	0.0%	0	0.0%
Sundry payables	1,500,000,000	0.9%	1,380,958,798	1.0%
Next year's recorded revenue	0	0.0%	47,960,001	0.0%
Grants received	960,698,579	0.6%	960,698,579	0.7%
Grants included in net income	0	0.0%	0	0.0%
Social funds reserve	7,755,783,037	4.9%	7,755,783,037	5.7%
Other reserves and balance carried over	373,669,295	0.2%	0	0.0%
Results to be affected	600,067,516	0.4%	373,669,295	0.3%
Net income	3,617,738,285	2.3%	600,067,516	0.4%
STOCKHOLDER'S EQUITY	***12,347,258,133***	**7.7%**	***8,729,519,848***	**6.5%**
	159,859,799,715	100.0%	135,158,928,828	100.0%

APPENDIX 'E'

CAISSE D'EPARGNE DE MADAGASCAR

15% Growth

PERFORMANCE CRITERIA

Performance Measure	Projected December 31, 1999	Actual December 31, 1998
Return on Assets %	2.3%	0.4%
Return on Equity Capital %	29.3%	6.9%
Net Spread %	7.4%	5.9%
Net Interest Margin	2.5%	1.1%
Net Income Per Staff Member FMG	23,491,807	4,615,904
VAPE in FMG	34,133,236	14,782,033
Equity to Assets %	7.7%	6.5%

APPENDIX F

Performance Criteria, Financial Assumptions and Pro-forma Statement — 15 Percent Growth

APPENDIX 'F'

(Malagasy Francs)

CAISSE D'EPARGNE DE MADAGASCAR

ASSUMPTIONS FOR PROJECTION OF 1999 FINANCIAL STATEMENT

Percentage of increase in savings deposits	25.00%
Increase in savings deposits	24,453,711,434
Increase in number of accounts	12.00%

PROJECTED COSTS OF FUNDS

	Ordinary accounts	Stable accounts	Special accounts
Interest rates	4.50%	5.20%	12.00%
Percentage of total deposits 99	40.00%	49.00%	11.00%
98	42.35%	54.58%	3.07%
97	45.80%	54.20%	0.00%
96	42.78%	57.22%	0.00%
99 average costs of funds	5.67%		

PROJECTED AVERAGE RETURN ON FUNDS

	Actual 1/1 - 5/30	Projected 6/1 - 12/30	ge proj m on fu	Percentage of Total deposit
1. Treasury account	13.50%	13.25%	13.35%	86.50%
2. Treasury Bill	16.72%	16.00%	16.30%	8.00%
3. Cash	0.00%	0.00%	0.00%	3.00%
4. Dollar account	0.80%	0.80%	0.80%	1.00%
5. FMG account	1.00%	1.00%	1.00%	1.50%
99 average return on funds			12.38%	100.00%

Net increase in fixed assets in 1999	500,000,000
Increase in personnel charges	24.00%

	Services Charges Actual Nov. '98 to March '99	Service Charges per Month April '99 to Dec. '99
Post Office Service Charges	245,456,990	50,000,000

(Malagasy Francs)

CAISSE D'EPARGNE DE MADAGASCAR

INCOME STATEMENT

	12/31/99		12/31/98	
Financial revenue	18,367,606,955	99.7%	10,973,880,723	99.6%
Other operating revenues	47,960,001	0.3%	0	0.0%
Non-reccuring revenues	0	0.0%	48,816,107	0.4%
Recovery of provision	0	0.0%	0	0.0%
Grant share	0	0.0%	0	0.0%
Financial Income	**18,415,566,956**	100.0%	**11,022,696,830**	100.0%
Less Interest charges	**6,930,181,820**	37.6%	**4,691,920,203**	42.6%
Net Interest Income	**11,485,385,136**	62.4%	**6,330,776,627**	57.4%
Cost of supplies used	1,008,716,302	5.5%	900,639,555	8.2%
External services expenses	738,109,975	4.0%	659,026,763	6.0%
Other external services expenses	1,852,892,064	10.1%	1,654,367,914	15.0%
Taxes	2,500,000	0.0%	2,457,020	0.0%
Personnel charges	1,638,779,990	8.9%	1,321,596,766	12.0%
Reimbursement of Service Charges	695,456,990	3.8%	0	0.0%
Other operating expenses	0	0.0%	0	0.0%
Depreciation	1,233,508,793	6.7%	1,183,508,793	10.7%
Provision	0	0.0%	0	0.0%
	7,169,964,113	38.9%	**5,721,596,811**	51.9%
Non recurring expenses	**5,000,000**	0.0%	**9,112,300**	0.1%
Net Income	**4,310,421,023**	23.4%	**600,067,516**	5.4%

(Malagasy Francs)

CAISSE D'EPARGNE DE MADAGASCAR

BALANCE SHEET

ASSETS	12/31/99		12/31/98	
Treasury account	123,369,646,545	72.2%	105,541,929,279	78.1%
Treasury Bill	11,409,909,507	6.7%	1,600,000,000	1.2%
Cash	4,278,716,065	2.5%	3,807,055,110	2.8%
FMG bank account	2,139,358,033	1.3%	1,712,611,810	1.3%
Dollar bank account	1,426,238,689	0.8%	915,921,672	0.7%
Pending account	750,000,000	0.4%	864,575,785	0.6%
Savings payable	0	0.0%	0	0.0%
Adjustment account	100,000,000	0.1%	109,024,670	0.1%
Loans to Personnel	0	0.0%	0	0.0%
Accounts receivable	1,500,000,000	0.9%	1,458,848,871	1.1%
Sundry supplies	0	0.0%	0	0.0%
Interest receivable	18,367,606,955	10.7%	10,868,547,059	8.0%
Fixed assets	12,450,070,423	7.3%	11,950,070,423	8.8%
Less accumulated depreciation	4,903,164,644	2.9%	3,669,655,851	2.7%
Net fixed assets	7,546,905,779	4.4%	8,280,414,572	6.1%
Sundry receivables	0	0.0%	0	0.0%
	170,888,381,573	100.0%	135,158,928,828	100.0%
LIABILITIES				
Savings accounts	122,268,557,170	71.5%	97,814,845,736	72.4%
Savings Transactions in Transit (via P.O.)	25,889,003,132	15.1%	25,889,003,132	19.2%
Interest Earning Liabilities	***148,157,560,302***	**86.7%**	***123,703,848,868***	**91.5%**
Interest payable	6,930,181,820	4.1%		0.0%
Suppliers	300,000,000	0.2%	335,942,734	0.2%
Personnel	0	0.0%	0	0.0%
Social benefits	0	0.0%	0	0.0%
Sundry payables	1,500,000,000	0.9%	1,380,958,798	1.0%
Next year's recorded revenue	0	0.0%	47,960,001	0.0%
Grants received	960,698,579	0.6%	960,698,579	0.7%
Grants included in net income	0	0.0%	0	0.0%
Social funds reserve	7,755,783,037	4.5%	7,755,783,037	5.7%
Other reserves and balance carried over	373,669,295	0.2%	0	0.0%
Results to be affected	600,067,516	0.4%	373,669,295	0.3%
Net income	4,310,421,023	2.5%	600,067,516	0.4%
STOCKHOLDER'S EQUITY	***13,039,940,871***	**7.6%**	***8,729,519,848***	**6.5%**
	170,888,381,573	100.0%	135,158,928,828	100.0%

CAISSE D'EPARGNE DE MADAGASCAR

25% Growth

PERFORMANCE CRITERIA

Performance Measure	Projected December 31, 1999	Actual December 31, 1998
Return on Assets %	2.5%	0.4%
Return on Equity Capital %	33.1%	6.9%
Net Spread %	8.2%	5.9%
Net Interest Margin	2.6%	1.0%
Net Income Per Staff Member FMG	27,989,747	4,615,904
VAPE in FMG	38,631,175	14,782,033
Equity to Assets %	7.6%	6.5%

APPENDIX G

Comparative Statement of Income and Expense — 1993-1998

APPENDIX 'G'

CAISSE D'EPARGNE DE MADAGASCAR

COMPARATIVE STATEMENTS OF INCOME AND EXPENSE

	31/12/98	30/09/97	30/09/96	30/09/95	30/09/94	30/09/93
Financial IncomeFinancial revenues	10,973,880,723	7,108,081,058	12,207,649,303	3,415,674,385	2,854,833,543	1,362,567,038
Other Operating Revenues	0	290,955,748	207,828,157	58,976,514	1,471,000	1,471,000
Non-recurring Revenue	48,816,107	25,941,088	9,476,395	26,588,576	2,901,240,168	332,814
Reversal of Provisions	0	6,712,216	4,653,588	5,289,424	0	0
Gross Income	11,022,696,830	7,431,690,110	12,429,607,443	3,506,528,899	5,757,544,711	1,364,370,852
Supplies at cost	900,639,555	580,342,212	801,640,845	328,585,640	215,335,020	188,194,045
External services expenses	659,026,763	487,138,368	421,573,419	167,840,930	90,597,398	54,504,943
Other external services expenses	1,654,367,914	1,225,057,060	1,077,250,010	423,180,236	262,550,803	204,913,041
Taxes	2,457,020	1,818,800	6,459,000	4,428,590	553,145	650,000
Personnel charges	1,321,596,766	1,040,362,067	704,919,618	334,042,145	264,134,808	98,927,857
Other operating expenses	0	2,630,000	0	0	5,084,495	4,249,805
Depreciation	1,183,508,793	892,432,055	653,637,800	274,109,230	204,384,212	198,946,661
Provision	0	28,676,360	0	0	0	0
	5,721,596,811	4,258,456,922	3,665,480,692	1,532,186,771	1,042,639,881	750,386,352
Interest charges	4,691,920,203	2,741,749,045	3,750,085,210	1,597,249,916	1,504,737,163	1,097,620,522
Non recurring expenses	9,112,300	57,814,848	37,840,201	1,237,500	44,021,454	400,000
Net Income	600,067,516	373,669,295	4,976,201,340	375,854,712	3,166,146,213	-484,036,022

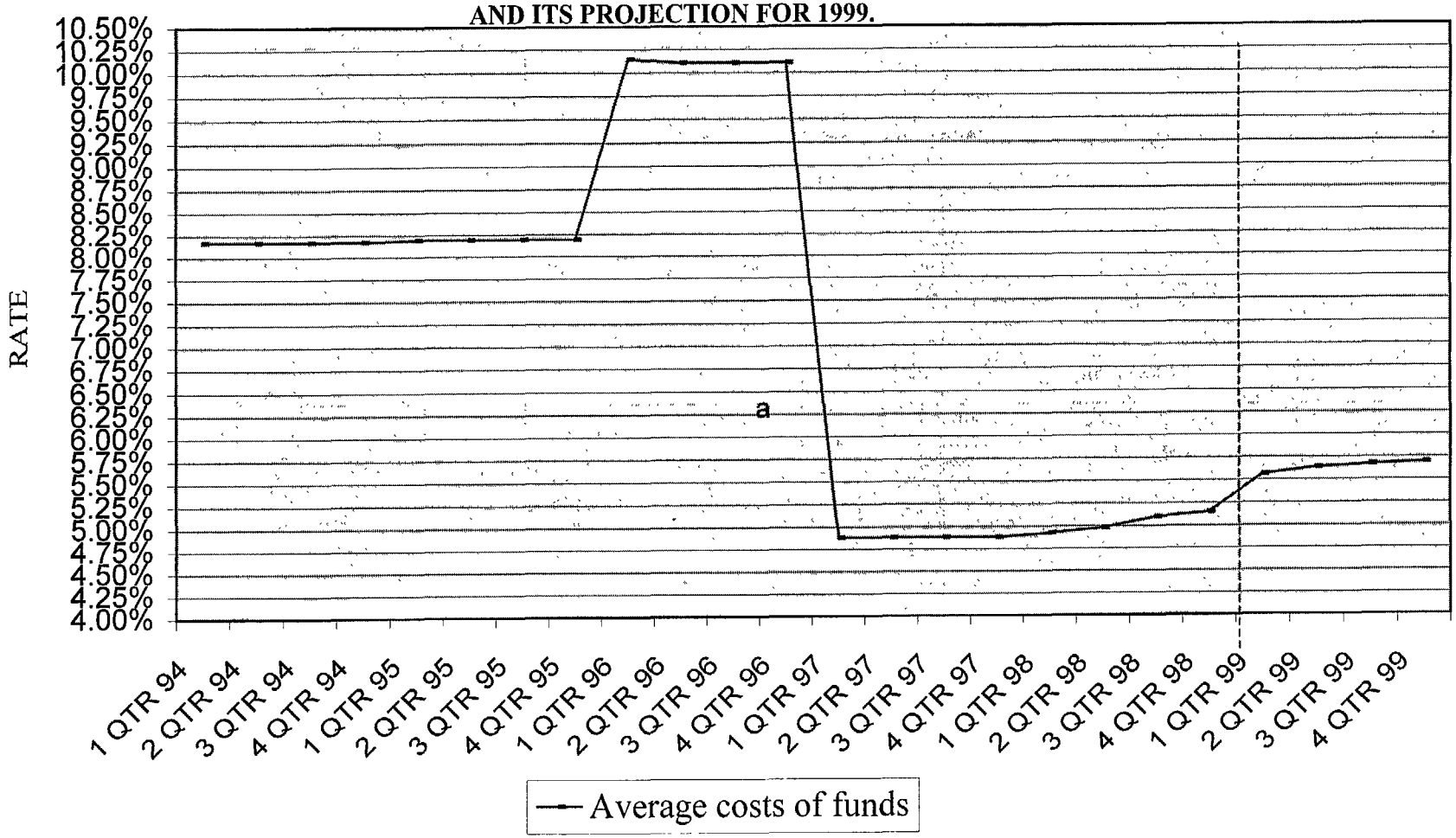
APPENDIX H

Average Cost of Funds

Appendix H

CAISSE D'EPARGNE DE MADAGASCAR

EVOLUTION OF THE AVERAGE COST OF FUNDS 1993-1998 AND ITS PROJECTION FOR 1999.



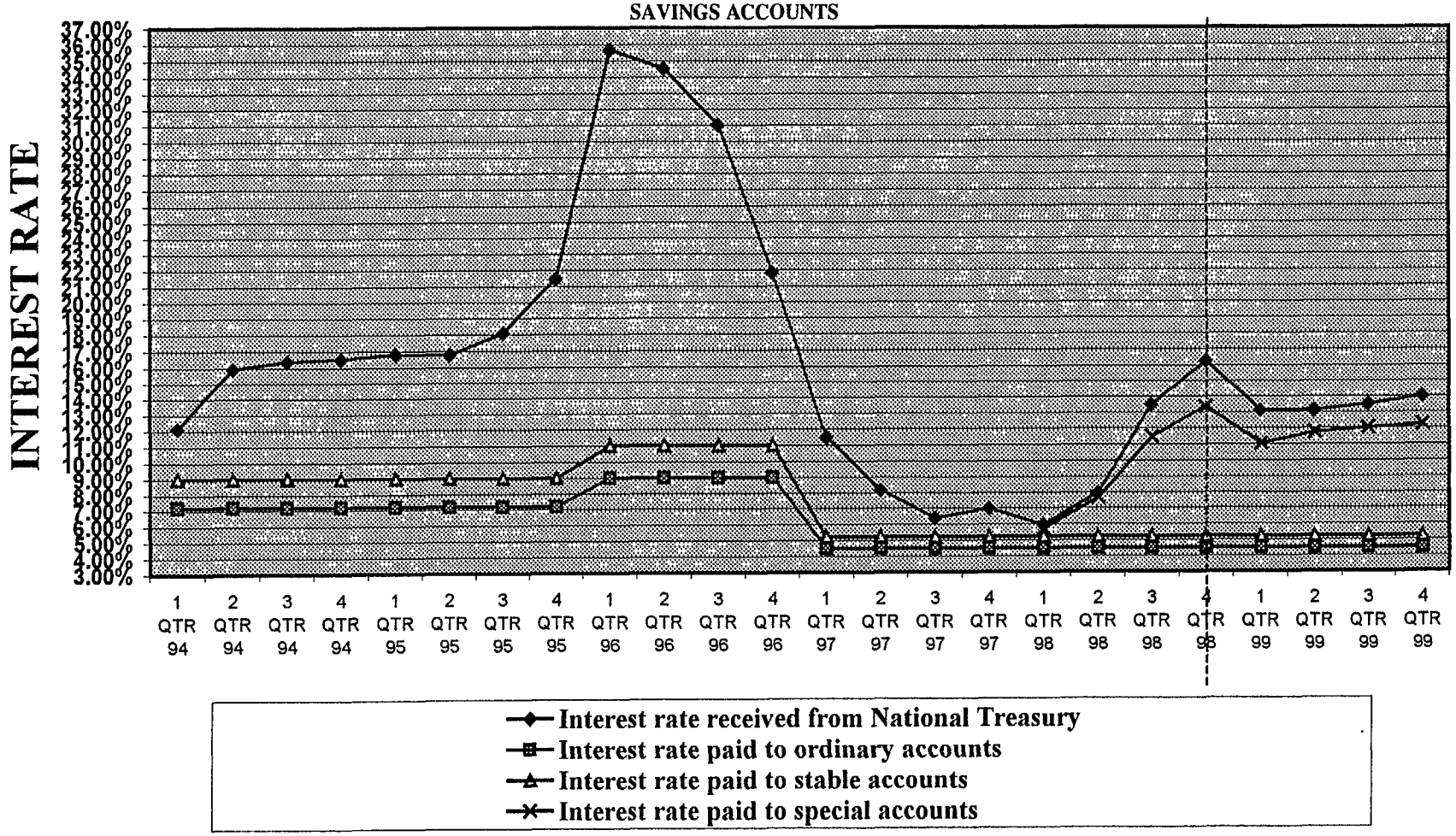
APPENDIX I

Historical and Projected Interest Rates

APPENDIX 'I'

CAISSE D'EPARGNE DE MADAGASCAR

EVOLUTION OF INTEREST RATE RECEIVED FROM THE NATIONAL TREASURY AND INTEREST PAID TO DIFFERENT SAVINGS ACCOUNTS



APPENDIX J

Contact List

Appendix J

CONTACT LIST - PERSONS INTERVIEWED

Organization	Contact	Telephone number
ADEFI – (MEC)	ANDRIANMANGAZATO RAMAROSON	2261510/11
BTM BANKIN'NY	JEAN JACQUES CHUK HEN SHUN	2220251
CARE	CHRIS DUNSTON	2262141
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CENTRAL BANK OF MADAGASCAR	PATRICK LE CLERC	2223673
CENTRAL BANK OF MADAGASCAR	THEODORE RAMANGALAHY	2234776
DELOITTE TOUCHE (DELTA)	RAMARIJAONA ROLAND	
DELOITTE TOUCHE	DENIS RATSIMANDRESY	2265373
FERT (MEC)	M. VIAULT	2224216
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MOF	ARMAND ROGER RANDRIANARIVONY	2220423
POST OFFICE	AMI BERNARD RAKATOARIVALO	2223900
SOCIETE GENERAL DE BANQUES	JEAN THOMAS	2220691
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US EMBASSY	STUART ZIMMER	2221357
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DO	DOMINIQUE RAJERISON	DO
DO	HOLDIN RAVELOSAON	DO
DO	TSIRINIRINA RAKOTONIRAINY	DO
DO	HERY RALISON ROKOTOSON	DO
DO	ANDRIANAIAIVO RAFANOARISON	DO
DO	CLAUSE ANDRIAMANATSOA	DO
DP	JEAN FLORENT RALAIVAO	DO

APPENDIX K

Internal Control and Financial Management Supplement

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Anatananarivo
Madagascar

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ANNEX K

Organizational Framework

CEM has traditionally been governed by a board of directors who are senior representatives of The Madagascar government.

As a limited liability company and holder of a banking license, the board of directors will be composed of no more that seven members who are business leaders and who have a range of expertise. The board has a chairman. The board's decisions are determined by majority vote. Three members are a quorum. When there is no majority vote, the chairman will cast the deciding vote. Regular meetings of the board are scheduled for the same day each month. At least five days beforehand, members given the minutes of the previous month's meeting and an agenda the next one. Members also receive management information system (MIS) reports so that they are fully briefed on CEM activities.

The board's responsibilities include the following:

1. Selection, engagement and management of executive managers.
2. Assuring sound corporate governance and ensuring that CEM is appropriately and effectively managed and controlled.
3. Approval of plans and budgets.
4. Monthly monitoring of performance and advising the managing director, as required.
5. Approving loans over certain limit and all exceptions to the institution's lending policy.
6. Approving asset sales, compensation programs, and capital investments over a determined limit.
7. Avoiding self-serving practices, preferential transactions involving directors, and members of staff.
8. Establishing an audit committee, a credit committee, and an asset liability management committee, with objectives and parameters of operation as outlined later.
9. Reviewing and approving credit risk management policies recommended by management through the credit risk management committee.
10. Establishing institutional and procedural controls supported by an effective management information system (MIS) that soundly and prudently manages CEM's exposure to risk.
11. Defining the managing director's performance targets and monitoring and assessing his performance.

No member of the board of directors can claim that he has not received adequate information.

A managing director whose mandate is approved by the board of directors manages CEM's day-to-day operations.

The board may establish working committees to attend to CEM's day-to-day activities, however, most lending institutions would limit these to an audit management committee, a credit risk management committee, and an asset liability management committee.

Management develops an annual business and operational plan that describes the structure and internal control systems required for the successful evolution and operation of the institution. The plan must explain the objectives of the capital investment.

A generic institutional chart that is consistent with CEM's profile appears in Annex A. As CEM grows, functions may be segregated laterally and vertically as appropriate.

Only the job descriptions of the managing director and audit manager require board approve because those individuals report directly to the board. Generic job descriptions for the managing director and audit manager appear in Annexes B and C).

The chairman of the board generally limits his activities to business development, government relations, and strategic issues. The chairman's activities should be discussed with and agreed to by the board .

The managing director will develop job descriptions for the managers of each division or department. The board decides how much authority it will delegate to various mangers. The board should provide the managing director with clear, standing orders that, at a minimum, should include the seven points listed below. The board must agree to the content of the standing orders pass a resolution adopting them, and record their content in the committee meeting minutes:

1. A lending limit up to which the MD can authorize loans without referring the matter to the credit risk committee.
2. A write-off limit up to which he can authorize losses without referring to the credit risk committee.
3. An overhead expense limit within the approved budget.
4. A capital expenditure limit within the approved budget.
5. Cash limits (i.e., main vault total, branch vaults, tellers, petty cash, foreign exchange cash, negotiable instruments etc.).
6. Salary adjustments.
7. Investments and their parameters.

Each departmental manager will simultaneously be required to develop job descriptions for each staff member that outlines their responsibility. Job descriptions are to be reviewed annually, or as CEM's needs and objectives change.

Organizational and Procedural Control

Proper organizational and procedural controls are essential for the institution to effectively manage and control its operations and to carry on business in an orderly manner. The scope of such controls are required to conduct business in a sound and prudent manner and depend on the nature of activity of each department, the volume of business handled, the size and complexity of transactions, the degree of risks associated with each operation, the degree of centralization and delegation of authority, and the extent and effectiveness of information technology installed.

At a minimum, a comprehensive set of institutional controls require the following:

1. Development and implementation of a formal code of conduct for the institution.
2. Development and implementation of an annual comprehensive business plan.
3. Establishment and maintenance of a reporting requirement or other method of ensuring that the significant risks to which CEM is exposed and the business activities in which it is engaged are identified and evaluated; and that sound, prudent, and effective business and risk management policies and procedures are developed and implemented to manage and control these risks and business activities with the objective of maintaining a sound and prudent institutional profile.
4. Development and implementation of appropriate human resource policies and procedures.

At a minimum, a comprehensive set of procedural controls requires the following:

1. Development and maintenance of comprehensive documentation that clearly sets out CEM's institutional and procedural controls.
2. Clearly defined prudent and appropriate levels of delegation of authorities.
3. A prudent segregation of functional responsibilities within the institution.
4. Establishment and maintenance of an effective MIS, including appropriate accounting and record keeping controls.
5. Development and implementation of an appropriate and effective asset liability management safeguard and controls for both on-balance and off-balance sheets.
6. Development and implementation of sound and conservative valuation policies and procedures.
7. Development and implementation of prudent and appropriate information technology controls.

Credit Risk Management

Role of the Board of Directors - Credit Risk Management Committee

Credit decisions are taken by a credit risk management committee that is appointed by the board of directors and housed in the main CEM office . The decisions of the centralized credit committee are to be recorded in committee minutes. Minutes should be in sufficient detail to permit the reader to understand the scope of the risk, and any reasons for dissension among the members of the committee.

The credit risk management committee is responsible for the design and administration of the credit risk management function. A discretionary lending limit may be delegated to the managing director, however, the wholesale nature of CEM's lending function precludes the need to use this limit except in emergencies. Such decisions are to be documented by the committee for ratification at the first meeting following the event.

The board of directors will ensure CEM's compliance with the credit risk management program through periodic reporting by management and the audit manager. The reports must provide

sufficient information to satisfy the board that CEM is complying with its credit risk management policies.

At a minimum, the credit risk management committee is responsible for the following:

1. Reviewing and approving credit risk management policies recommended by management.
2. Periodically reviewing (but at least once a year), the credit risk management program.
3. Ensuring the selection and appointment of qualified and competent managers to administer the credit risk function.
4. Ensuring that an internal audit reviews the credit operations to assess whether or not CEM's policies and procedures are being adhered to.
5. Reviewing credits to, or guaranteed by officers of CEM or its affiliates, including related policies.
6. Reviewing direct or indirect credits to directors and committee members or firms in which they are partners, directors, or officers, including related policies.
7. Reviewing credits to corporations controlled by CEM or its officers or directors, including related policies;
8. Ratifying credits that exceed the level of authority delegated to management and be aware of credits that, although worthy of consideration, are not within the purview of existing credit policies.
9. Reviewing significant credit exposures.
10. Reviewing trends in portfolio quality and the adequacy of the provision for credit losses.
11. Outlining the content and frequency of management reports to the executive on credit risk management.
12. Ensuring that all loans have at least two sources of repayment.
13. Ensuring that all loan documents facilitate the ready assignablity of advances at the option of the credit risk management committee.

The managing director's loan limit will be specified in his standing orders. The credit risk management committee is also responsible for designing the credit department's structure and workflow. In practice, credit policy evolves from the credit risk management committee, is drafted and discussed by senior management, then submitted to the board of directors for approval. Once approved, senior management implements the policy. The board is ultimately responsible for credit policy and for its administration. Through the policy statement, the board delegates most of its lending responsibilities to the credit risk management committee.

The credit risk management committee normally convenes weekly, is composed of three to five people, including two to four members of the board and the managing director. The credit risk

manager presents each credit application to the committee and provides a full explanation to support his recommendations. Two committee members constitute a quorum.

The credit risk management process is as follows:

1. Credit underwriting.

2. Credit approval process.

3. Credit and portfolio administration and monitoring. and

4. Annual review and collection.

The credit risk management policy and procedure manual should to be submitted annually to the board of directors for validation and approval of amendments. Credit risk management committee members must abstain from participating in decisions that involve borrowers with whom they have a direct or indirect relationship.

The credit risk management committee's other responsibilities include monthly review of the intermediary banks' "watch list," a report that is developed by the credit department, contains aggregate statistics of the intermediary institutions' and banks' loan portfolios, and provides aggregate information on accounts that are classified anything other than "safe," including details on actions being taken and the results expected. The credit department manager is responsible for reporting intermediary institutions' and banks' aggregate statistics on loans of questionable collectability. The credit department will make regular credit evaluations of intermediary institutions' and banks' financial positions and monitor their development loan portfolios with the objective of identifying deterioration in the inherent credit risks.

Amendments to CEM's credit policies should be made as necessary and presented to the board of directors for approval.

The credit risk management committee monitors intermediary institutions' and banks' lending policies that pertain to their development lending activities (funded by CEM) to ensure ongoing validity .

Although it is largely an academic point , the credit risk management committee is the only body in CEM that has the authority to capitalize interest in justifiable instances, and the rebooking of restructured loans that have previously been charged-off.

Role of Management

Management is responsible for implementing CEM's credit risk management policies and ensuring that procedures are in place to manage and control credit risk and the quality of the credit portfolio. Management is also responsible for the following:

1. Developing and recommending credit risk management policies for submission to the credit risk management committee and approval by the board of directors.

2. Implementing credit risk management policies.

3. Ensuring that credit risk is managed and controlled within the credit risk management program.

4. Ensuring the development and implementation of appropriate reporting systems for content, format, and frequency of information on the credit portfolio and credit risk to permit an effective analysis and sound and prudent management and control of existing and potential credit risk exposure.

5. Monitoring and controlling the nature and composition of the credit portfolio.

6. Monitoring the quality of the credit portfolio and ensuring that the portfolio is soundly and conservatively valued, that uncollectable credits are written off, and probable losses are adequately provided for.

7. Ensuring that an internal audit reviews and assesses the credit portfolio and credit risk management program.

8. Developing lines of communication to ensure timely dissemination of credit risk management policies and procedures and other credit risk management information to all individuals in the credit process.

9. Reporting significant credit activities, the composition and quality of the credit portfolio, and the credit risk management program to the board of directors at least once a year.

Credit Risk Management

Managing credit risk is fundamental to the safe and sound management of a financial institution. Sound credit risk management involves prudently managing the risk/reward relationship and controlling and minimizing credit risks across a wide variety of dimensions, such as quality, concentration, currency, maturity, security, and type of credit facility. The comprehensive risk management program requires that management:

- Identifies existing or potential credit risks to which the institution is exposed, and developing and implementing sound and prudent credit policies to effectively manage and control those risks. Develops and implements effective credit granting, documentation, and collection processes; and develops and implements comprehensive procedures to effectively monitor and control the nature, characteristics, and quality of the credit portfolio.

The foundation of an effective credit risk management program is being able to identify the existing and potential risks inherent in the institution's credit procedures and credit activities, and developing clearly defined, written policies that set out the institution's credit philosophy and the parameters under which the credit risk is to be controlled.

Pressure for increased viability and financial sustainability, marketing considerations, and a more complex financial environment have resulted in innovative credit instruments and approaches to credit. Measuring the risks attached to each credit activity permits the determination of aggregate exposures to counter-parties for control and reporting purposes, concentration limits, and risk/reward returns.

A credit policy establishes the framework for lending and reflects the institution's culture and ethical standards. To be effective, policies must be communicated in a timely fashion, implemented through all levels of the institution by appropriate procedures, and revised periodically in accordance with changing circumstances.

The credit policies are to ensure at a minimum that they contain:

- A credit risk philosophy governing the extent to which CEM is willing to assume credit risk;
- General areas of credit to which the institution is prepared to engage or is restricted from engaging;
- Clearly defined and appropriate levels of delegation of approval, and provision for write-off authorities; and
- Sound and prudent portfolio concentration limits.

These policies will be developed and implemented within the context of a credit risk management environment that ensures that all of CEM's credit dealings are conducted in the highest possible standard of ethical behaviour.

Credit Risk Philosophy

This statement of principles and objectives outlines CEM's willingness to assume credit risk according to its established business focus of serving microentrepreneurs and small and medium-size enterprises (SMEs), the extent to which other risks are assumed, its ability to absorb losses, and the minimum expected return that is acceptable for a specific level of risk.

General Areas of Credit

This section describes the general areas of credit that CEM is prepared to engage in, such as product lines, types of credit facilities, types of borrowers, or geographic sectors.

Approval Authorities

It is necessary to define the appropriate level of authority for credit approval, provisions, or write-offs in order to ensure that credit decisions are prudent and acceptable, and that the integrity and credibility of the credit process is protected by fair, consistent, and objective credit decisions and that the risk is acceptable given the expected return.

Portfolio Concentration Limits

Concentration occurs when an institution's loan portfolio contains an excessive level of credit to:

1. A single counter-party,
2. A group of related or associated counter-parties,
3. An industry,

4. A geographic region,
5. One class of collateral security, and
6. A borrower or group of borrowers in relationship to its adjusted equity base.

Excessive concentrations render CEM vulnerable to adverse changes in credit concentrated and could result in security impairment. The most significant risk that CEM faces is default. Default occurs when a counter-party does not perform its obligations according to the terms of the credit agreement. To minimize its exposure to loss through default, CEM management assesses each credit and its associated credit risks before the approval or disbursement of funds, and ensures that credits are appropriately documented. This part of the credit procedure manual is to be accompanied by clearly defined procedures for collection and regular monitoring at the level of the institution.

Evaluating Credit Proposals

Although some well constructed credits can deteriorate because of unforeseen circumstances, most credit problems stem from disregarding or inadequately assessing the basic lending principles. Examples appear below:

1. The purpose of the credit and the source and time of repayment.
2. The character, integrity, and reputation of the borrower to promptly and willingly repay debts or fulfill contractual obligations.
3. The borrower's capacity to repay, based on historical financial trends and cash flow projections.
4. The adequacy of collateral, if any.

A relaxation of credit quality standards, including the assumption of borrowers' risks, the excessive granting of subordinated credit, or the provision of credit with overgenerous terms, conditions, or amounts; or an adjustment of target-market criteria or entrance of products into untested markets.

To maintain a sound credit portfolio, management must develop a prudent and effective evaluation process that provides an independent and objective assessment of all credit proposals. The credit committee should consider establishing a specialist credit group for the types of credit facilities in which it is to be engaged.

A strong credit process that is independent of the marketing and business services function as depicted in CEM's organizational chart is an effective means of ensuring that credit risks are appropriately analyzed and reviewed, and are within CEM's parameters and credit policy. The details of the analysis vary according to the type of credit, however, commercial credits require extensive analysis, whereas a retail portfolio should not require the same degree of assessment. In all cases, sufficient analysis is to be undertaken to properly assess the integrity of the borrower, his ability to repay, and the value of any collateral security pledged.

Credit Documentation

Development and maintenance of a sound portfolio requires the accurate and adequate documentation. Inadequate, incomplete, or unenforceable documentation can lead to nonrecovery of funds, particularly in instances in which management is obliged to litigate to recover funds. Management assures that assets are soundly and conservatively valued and maintains credit files supporting the granting of each credit and credit review process.

At a minimum each credit file should contain the following information:

1. The borrower is identified by name and occupation or type of business, as are cosigners, endorsers, guarantors, and connected counter-parties.

2. Evidence of the borrower's legal powers to borrow, financial condition, and ability to repay, including the source and time of repayment.

3. The terms of the credit obligation, including the purpose of the credit.

4. An evaluation if the collateral indicating its marketability or condition.

5. A history of the credit, including copies of the most recent credit authorization and internal credit reviews, and evidence of the level of approval.

6. Details of signing authority of the borrower's management.

Credit Collection Process

CEM management will develop procedures governing the collection of principal, interest, and fees to ensure that payments are received on a timely basis in accordance with the terms of repayment, and that they are appropriately recorded. Although it is expected that most credits will be repaid in full, it is recognized that CEM is exposed to the risk of default, and therefore, credit write-off may be expected.

A reduction in credit quality needs to be recognized at an early stage when CEM still has a number of strategic options open to manage its default risk. This policy extends to CEM's interventions in the collection process for loans made by intermediary banks. The options include referral to an internal credit workout group, renegotiating the terms of the credit, and reorganizing or liquidating the borrower in order to minimize potential loss. Recovery efforts require well conceived strategies and timetables.

Credit Portfolio Monitoring and Control

Many lending institutions suffer the consequences of their failure to establish procedures that effectively monitor and control their credit function .Thus,, CEM management will develop and implement comprehensive procedures and information systems that effectively monitor and control the characteristics and quality of its loan portfolio.

The loan portfolio will categorized by credit characteristic, risk rating, and regular review of individual and credit groups within its portfolio, and independent internal credit inspections or audits will become integral elements of CEM's effective and prudent portfolio and monitoring system.

Portfolio Characteristics

As its portfolio grows and justifies more intensified management, management should develop a system that enables credits to be grouped by single and associated groups of counter-parties, types of credit facilities, industries, and geographic regions.

Credit Rating System

Management will develop and implement a credit rating system that defines the risk rating criteria and rates credits according to established criteria. At a minimum, the risk rating system will permit credits to be classified as satisfactory or acceptable risk, below standard risk, and unsatisfactory risk (for example, credits in which payments are contractually past due, credits in which partial or complete provisions for loss have been made, or credits not adequately supported by collateral, where appropriate).

A more pressing need is the development and implementation of an appropriate policy for classifying credits as nonaccrual with conservative accounting policies for recognizing revenue related to such accounts. This should be a policy practiced by CEM as well as one imposed by CEM on its intermediary banks. The industry norm for classifying credits as nonaccrual is the existence of serious doubt about the ultimate collectability of principal or interest, whenever a provision for loss has been recorded against the account, or where interest is owed and remains uncollected 90 days following its contractual or scheduled payment date. Revenue should not be recognized through the capitalization of interest in any manner, except where this has been specifically agreed to with the client and formed as part of the original terms of credit and the loans continue to be adequately collateralized or is otherwise in good standing.

Credit Review

Most of CEM's outstanding credits and commitments are contingent on end-borrowers maintaining specific credit standards. Consequently, credit management will regularly monitor the status of its primary borrowers (intermediary banks and lending institutions) and their respective credit portfolios, and reevaluate aggregate credit exposures and commitments, and their credit risk ratings. Reliance on unreviewed credits and optimistic economic forecasts can lead to a serious deterioration of the credit portfolio. Accordingly, the credit risk management program must include procedures that govern the regular formal review and, where applicable, the credit risk rating of individual credits. This management tool is imperative to the sound governance of the loan portfolio, and may need to be outsourced to a professional group.

An effective credit review system, even when outsourced, couples independent review with regular analysis and rerating of credits by primary[1] and secondary account officers. Because of their frequent contact with end borrowers, the account officers within the banks that mobilize funds from CEM are in a position to detect changes in a borrower's operations or financial condition. This system permits account officers to identify potential problems before independent credit reviewers detect them. Accordingly, credit review systems must ensure that an account officer is monitoring credit quality on an on-going basis and, where applicable, its underlying security.

The nature, complexity, and degree of analysis and the quality of the credits reevaluated under a credit review process will vary with the type and sophistication of credits contained in CEM's loan portfolio. This means that loans to intermediary banks (and, where pertinent, the

institution's own commercial credits) should be reviewed at least annually. Small retail credits are not covered in this policy because they are not within the scope of CEM's current mandate.

The common objectives of a credit review system include the following:

1. Ensuring that management is aware of borrowers' current financial condition.

2. Ensuring that where required, the collateral security is held in good order and is adequate and enforceable relative to borrowers' current circumstances.

3. Ensuring that credits are in compliance with covenants and margins outlined in loan agreements.

4. Early identification and classification of potential problem credits.

5. Current information on the quality of the loan portfolio.

Internal Credit Audit

An internal credit audit verifies the continuing adequacy and applicability of credit risk management policies and procedures; provides an independent assessment of the credit portfolio's existence, quality, and value; the integrity of the credit processes; and promotes the detection of related problems . Assessments should, at a minimum randomly test all aspects of the credit risk management process in order to determine that:

1. Credit activities are in compliance with CEM's credit and accounting policies and procedures, and with the laws and regulations to which the credit activities are subject (i.e., Central Bank of Madagascar banking law, civil code etc.).

2. Credit risks are authorized and are accurately recorded and appropriately valued on CEM's books;

3. Credits are appropriately risk rated.

4. Credit files are complete.

5. Potential problem accounts are being identified on a timely basis and to determine whether the provision for credit losses is adequate.

6. Credit risk management information reports are adequate and accurate.

Assessments of credit risk management activities must be presented to the credit committee for review on a timely basis.

Conflicts of Interest

This credit policy requires the development of procedures that prevent conflicts of interest. Conflicts of interest in the credit process occur if persons use their connections or influence to obtains funds for themselves or their interests. Conflicts of interest may lead to the extension of credit on an unsound basis because individuals in the credit process may be influenced and

therefore may not be able to evaluate and reject credit applications with the same impartiality as credit requests from other persons who deal with the institution at arm's length.

Releasing confidential information without a customer's prior consent may detract from CEM's reputation and stature and bring it into disrepute.

Audit Management

Role of the Board of Directors - Audit Management Committee

The board of directors will establish an audit management committee of three to five members. Members of the committee should include the audit manager and other members who are well versed in international accounting and audit standards and banking and who are familiar with CEM's business activities. The audit management committee should meet monthly or as often as required. The decisions of the committee should be documented in detailed minutes, which should be reread by the members at the beginning of the following meeting. The audit committee should report to the board of directors. This important feature of governance requires the committee to:

1. Design and implement CEM's audit standards, internal audit guide, and procedures.

2. Select and engage the external auditors, including negotiating their annual fee.

3. Design and have implemented a certification program that assigns the responsibility and accountability for reconciliation of all general ledger accounts, and verifies all off-balance sheet items, and has the results monitored monthly.

4. Have all regulatory examinations reviewed for followup to ensure compliance with all laws, rules, and regulations.

5. Establish the audit cycle to ensure the audit manager audits all departments at least once annually.

6. Review and approve all operational manuals before they are submitted to the board for approval, to ensure that control aspects are adequately addressed and of an acceptable standard;.

7. Have a full evaluation of the loan portfolio undertaken by a competent person not related to the loan approval process, at least annually.

The responsibilities of the committee are to be documented and the board resolution should adopt them and confirm its members.

An independent audit is a key element in monitoring and assessing the integrity of internal controls and the internal control environment. CEM will have in place an independent audit function through which it may be obtain reasonable assurance that its key institutional and procedural controls are effective and appropriate and that they are being complied with.

The need to establish and maintain a system of independent audit is distinct from the requirement to establish and maintain internal controls over day-to-day transactions and operations. The independent audit function does not have any primary responsibility for establishing or maintaining internal controls. Rather, independent auditors evaluate the effectiveness of these

controls and contribute to their ongoing effectiveness. In this way, an independent audit function forms an integral part of CEM's internal control environment.

Although independent audits are usually performed by an institution's internal audit department, it could be more convenient and cost-effective to outsource this function to institutions that are either related to the shareholders, or to external auditors or qualified consultants.

Independent audit assessments should be presented to the audit committee for timely delivery to the board of directors at least once a year.

For maximum effectiveness, the audit function must:

1. Have an appropriate mandate governing the department's duties (formulated by the audit management committee and approved by the board of directors).

2. Be independent of the functions and internal controls that it audits.

3. Have sufficient resources to achieve the mandate.

4. Be conducted through a professional audit program.

The Audit Mandate

This is a written statement of objectives of the authority and should at a minimum ensure that the objectivity of the independent audit function is vital to its effectiveness. Therefore, the auditor needs to be independent of the activities, functions and internal controls that he audits.

There is a greater degree of independence when:

1. The mandate and authority of the auditor function is separated from the day-to-day control over transactions and operations;

2. The function reports through the audit management committee of the board of directors.

3. The selection and dismissal of the independent auditor and his team is the sole responsibility of the board of directors.

Resources

The board of directors should ensure that the independent internal auditor possesses the qualifications, knowledge, skills, experience and training to fulfill the audit requirements of the institution.

Audit Program

Audit programs are usually designed to provide reasonable assurance that controls are met. The extent of testing of particular business activities or risk areas is a matter of professional judgment. Although the complete testing of all transactions and other aspects of the activity under review may provide further assurance as to the integrity of the institution's development loaning operations, this may not be necessary or practical for sound audit reasons. Reasonable assurance may be obtained by developing a comprehensive audit program based on the

assessment of risk and the materiality of the risk, either alone or in combination with other risk factors.

The key elements of a comprehensive audit guide include:

1. A comprehensive plan governing the audit objectives for the period under review. The plan will identify risk activities, operations, and internal control systems to be reviewed; specify the frequency of the audit; and identify their necessary resources to carry out the plan;

2. Comprehensive procedures for achieving the audit plan include:

    a) Identifying the risk and or control objectives for each area to be reviewed;

    b) Specifying how the risk or control mechanism will be assessed, including, where applicable, sample sizes and method of selection; and

    c) Criteria for assessing the adequacy of specific policies, procedures, and controls to address these risks and or control objectives.

3. Documenting the work performed, who performed it, how it was controlled and supervised, and the results of findings, conclusions, and recommendations; and

4. A system for reporting and following up on the audit findings, conclusions, and recommendations.

The board of directors should consider this important function as a nonoptional component of its institutional structure. This is an important feature of governance of financial institutions and the scope of responsibility is similar throughout the industry.

Asset Liability Management

The Role of the Board of Directors—ALCO

CEM's participation in the domestic and international money markets is a natural feature of its day to day operations, on the condition that interest yields meet targets to be developed and established by its asset liability committee. The tasks of the treasury function require careful management to ensure that liquidity is maintained while investing surpluses to conserve the institution's capital.

The determination and design of treasury management, policies, and procedures are the responsibility of the asset liability management committee (ALCO).

The day-to-day operations of the department will be carried out by a treasury manager, with an operating policy and guidance provided by ALCO. ALCO should have three to five members, including the managing director and the manager of the department. ALCO decisions should be recorded in minutes. Two members constitute a quorum. The objectives of this committee include:

1. Protecting funds and grants of shareholders, depositors, and donors.

2. Maintaining sufficient liquidity to cover cash flow requirements and investment of surpluses to be determined by the committee.

3. Managing interest and term gaps to maximize earnings within risk limits.

4. Overseeing CEM's foreign exchange activities to ensure consistency and setting rates to achieve the department's profit objectives.

5. Maintaining sufficient capital to cushion against business risks.

6. Pricing products to ensure they are within the competition while meeting CEM's capital growth objectives.

In the same way that concentrations of credit should be avoided and limits of exposure established, CEM should limit its reliance on large deposits from the same or related sources. A maximum limit for deposits should be established using criteria similar to those for credit exposure (i.e., a percentage of adjusted capital of the institution). Reliance on large deposits can have a destabilizing effect if the deposit is withdrawn without prior notice or funding is not properly coordinated.

To facilitate good cash management, treasury management should establish formal credit lines for local banks to permit CEM to invest short-term excess funds in the local market. Each placement with another bank is a credit risk that requires analysis and evaluation of the credit risks involved. In addition, the treasury manager should develop a roster of sources of short-term funders that are willing to place funds with CEM for fixed terms up to one year, to be used to fund specific groups of assets or used as swapped deposits for other funds received from the public, and that are not well matched with corresponding assets. The treasury manager should maintain open communication with the credit department to be able to plan CEM's funding needs. This plan presupposes CEM's ability to attract deposits from the public and the task of establishing these facilities requires making a presentation to banks, including delivery of CEM's audited financial statements.

CEM's asset liability management function is responsible for the management and control, within set parameters, of the impact of the volume, mix, maturity quality, and interest and exchange rate sensitivity of assets and liabilities. This encompasses the activities of capital management, interest rate risk, foreign exchange risk, liquidity management, and investment management.

Capital Management

Managing capital is the ongoing process of determining and maintaining the quantity and quality of appropriate capital. Managing capital adequacy requires a clear understanding of CEM's capital requirements and related capital position. Because capital is an economically scarce and strategic resource, capital management is an important component in the safe and sound management and the strategic planning of a financial institution.

The objective of capital management is to ensure that capital is and will continue to be adequate to maintain confidence in the safety and stability of CEM and that the return on capital is sufficient to satisfy the expectations of its investors.

A comprehensive capital management program requires establishing and implementing sound and prudent policies that govern the quantity and quality of capital required to support CEM; and the development and implementation of appropriate and effective procedures to monitor - the institution's capital requirements and capital position on an ongoing basis to ensure that it meets its capital requirements and will continue to meet its future capital requirements.

Capital Management Policies

CEM management will develop and implement capital management policies to ensure the quantity and quality of its capital is adequate, at a minimum, to meet all applicable regulatory requirements.

For regulatory purposes, the components of capital may take various forms with varying maturity dates and levels of risk. Capital components usually have all or a combination of three important properties: permanence; freedom from mandatory fixed charges against earnings; and legal subordination to the rights of depositors and other creditors. The quantity of CEM's capital having all three properties of capital should equal or exceed the quantity of capital that does not meet all of these properties.

Capital Management Procedures

CEM management will develop and implement appropriate and effective procedures to manage its capital position. Such capital management procedures will include, at a minimum ongoing monitoring procedures to ensure that CEM's capital position meets its minimum capital requirements; and a process of capital planning to ensure that it will continue to meet its future capital requirements.

When measuring capital adequacy, it is not sufficient to consider only the current capital position. The conditions on which any such judgment is based will change over time. Therefore, CEM management needs to have in place a capital planning process in order to be prepared for changing conditions.

At a minimum, management will develop, at least annually, a plan for maintaining adequate capital. A capital plan needs to:

1. Project capital requirements and position over at least the next year, taking into account the current capital position and the effect on capital of foreseeable changes on regulatory requirements and business, operational and financial position, including an assessment of potential capital requirements relating to the redemption of maturing capital instruments;

2. Identify the underlying assumptions supporting the projection;

3. Identify the quantity, quality, and sources of additional capital required, if any;

4. Assess the availability of any external sources identified; and

5. Estimate the financial impact of raising additional capital.

Anticipating the need for additional capital enables management to take timely advantage of opportunities in the marketplace to raise capital on more favorable terms.

Factors that may necessitate capital additions include changes in regulatory requirements; growth in assets and liabilities (both on and off-balance sheet) including acquisitions, changes in the risk profile, operating or investment losses, and the institution's dividend payout policy.

Interest Rate Risk Management

Managing interest rate risk is a fundamental component of safe and sound management. It involves prudently managing mismatch positions in order to control, within set parameters, the impact of changes in interest rates on the institution.

Significant factors in managing the risk include the frequency, volatility, and direction of interest rate changes; the slope of the interest rate yield curve; the size of the interest-sensitive position; and the basis for repricing at rollover dates.

Although the details of interest rate risk management will vary depending on the nature and complexity of the asset and liability structure (both on and off-balance sheet), interest rate risk positions and risk profile, a comprehensive interest rate risk management program requires:

1. Establishing and implementing sound and prudent interest rate risk policies;

2. Developing and implementing appropriate interest rate risk measurement techniques; and

3. Developing and implementing effective interest rate risk management and control procedures.

Interest Rate Risk Management Policy

Sound and prudent interest rate risk management requires clear policies. These policies need to include:

1. An interest rate risk philosophy governing the extent to which CEM is willing to assume interest rate risk;

2. Explicit and prudent limits on CEM's interest rate risk exposure; and

3. An interest rate risk philosophy.

CEM's tolerance to assume interest rate risk will vary with the extent of other risks (e.g., liquidity, credit risk, foreign exchange risk, investment risk) and its ability to absorb potential losses. A tradeoff exists between risk and return. Although a fully matched position eliminates interest rate risk, such a position may not be desirable for other sound business reasons. The objective of interest rate risk management need not necessarily be the complete elimination of exposure to changes in interest rates. Rather, it should be to manage the impact of interest rate changes within self-imposed limits set after careful consideration of a range of possible interest rate environments.

Interest Rate Risk Limits

CEM management will establish explicit and prudent interest rate risk limits, and ensure that the level of interest rate risk exposure does not exceed these limits.

Interest rate risk limits need to be set within the institution's overall risk profile, which reflects factors such as its capital adequacy, liquidity, credit quality, investment risk, and foreign exchange risk. Interest rate positions should be managed within its ability to offset such positions if necessary. Moreover, interest rate risk limits need to be reassessed on a regular basis to reflect potential changes in interest rate volatility, its overall risk philosophy, and risk profile.

Risk limits are usually defined in terms of earnings or the present value of equity at risk and are normally expressed in terms of the allowable amounts of mismatched positions for specified or cumulative maturity periods.

Earnings are the reported net income before taxes. Changes in interest rates may affect earnings by:

1. Affecting the interest income or expenses relating to assets, liabilities, and off-balance sheet items; and

2. Affecting the value of fixed-rate assets, liabilities, and off-balance sheet items that are carried on a market valuation basis.

Present value of equity is the value of assets and off-balance sheet items generating cash inflows, less the present value of liabilities and off-balance sheet items generating cash outflows. Changes in interest rates affect the present value of the cash flows and the value of these items, and therefore the economic value of shareholders' equity.

Limits may also appropriately be defined in terms of regulatory capital, shareholders' equity, and earning assets.

Measurement of Interest Rate Risk

Managing interest rate risk requires a clear understanding of the amount at risk and the impact of changes in interest rates on this risk position. To make these determinations, sufficient information must be readily available to permit appropriate action to be taken within acceptable, often very short, time periods. The longer it takes management to eliminate or reverse an unwanted exposure, the greater the possibility of loss.

CEM management will use risk measurement techniques that accurately and frequently measure the impact of potential interest rate changes on the institution. In choosing appropriate rate scenarios to measure the effect of rate changes, management will consider the potential volatility of rates and the time period within which CEM could realistically react to close the position.

Gap analysis, duration analysis, and simulation models are interest rate risk measurement techniques. CEM should use at least one and preferably a combination of these techniques in managing its interest rate risk exposure. Each technique provides a different perspective on interest rate risk, has distinct strengths and weaknesses, and is more effective when used in combination.

Interest Rate Risk Management and Control Procedures

CEM management will develop and implement effective and comprehensive procedures and information systems to manage and control interest rate risk in accordance with its interest rate

risk policies. These procedures should be appropriate to the size and complexity of the institution' s interest rate risk activities.

The use of hedging techniques is one way to manage and control interest rate risk. In this regard, many different financial instruments can be used for hedging purposes; the more commonly used, however, are derivative instruments. Examples include foreign exchange contracts, foreign currency and interest rate futures contracts, foreign currency and interest rate options, and foreign currency and interest rate swaps.

Generally, CEM will want or need to use the full range of hedging instruments. Management should consider which are appropriate for the nature and extent of CEM's interest rate risk activities, the skills and experience of management, and the capacity of interest rate risk reporting and control systems.

Financial instruments used for hedging are not distinguishable in form from instruments that may be used to take risk positions. Before using hedging products, CEM management must ensure that they understand the hedging instrument and that they are satisfied that the instrument matches their specific hedging needs in a cost-effective manner.

Internal audits are a key element in managing and controlling an institution's interest rate risk management program.

CEM management should use them to ensure compliance with and the integrity of the interest rate risk policies and procedures. Internal inspections or audits should, at a minimum, randomly test all aspects of interest rate risk management activities in order to:

1. Ensure interest rate risk management policies and procedures are being adhered to;

2. Ensure effective management controls over interest rate risk positions;

3. Verify the adequacy and accuracy of management information reports; and

4. Ensure that personnel involved in interest rate risk management fully understand the institution's interest rate risk policies and risk limits and have the expertise required to make effective decisions that are consistent with the interest rate risk policies.

Assessments of the interest rate risk operations should be presented to the board of directors on a timely basis for review.

Interest Rate Risk Measurement Techniques

Gap Analysis

A simple gap analysis measures the difference between the amount of interest-earning assets and interest-bearing liabilities (both on-and off-balance sheet) that reprice in a particular time period.

A negative or liability-sensitive gap occurs when interest-bearing liabilities exceed interest-earning assets for a specific or cumulative maturity period; that is, more liabilities reprice than assets. A decrease in interest rates should improve the net interest rate spread in the short term, as deposits are rolled over at lower rates before the corresponding assets. On the other hand, an increase in interest rates lowers earnings by narrowing or eliminating the interest spread.

A positive or asset-sensitive gap occurs when interest-earning assets exceed interest-bearing liabilities for a specific or cumulative maturity period; that is, more assets reprice than liabilities. A decline in interest rates should lower or eliminate the net interest rate spread in the short term, as assets are rolled over at lower rates before the corresponding liabilities. An increase in interest rates should increase the net interest spread.

More sophisticated gap reports measure mismatches of principal and interest cash inflows and outflows (including final maturates), both on- and off-balance sheet, that reprice in a given period.

Such gap reports measure potential risk to earnings, from changes in interest rates on these repricing gaps across the full maturity spectrum. The reports are important to an interest rate risk management program because they indicate how much net interest income is at risk, and, to some extent, the timing of the risk. The reports provide an objective measure of risk associated with current positions only; forecasts of future business are not included.

Gap analysis is subject to limitations. Gap analysis does not capture basis risk or investment risk, is generally based on parallel shifts in the yield curve, does not incorporate future growth or changes in the mix of business, and does not account for the time value of money.

Moreover, simple gap analysis (based on contractual term to maturity) assumes that the timing and amount of assets and liabilities maturing within a specific gap period are fixed and determined, therefore ignoring the effects of principal and interest cash flows arising from honoring customer draw-downs on credit commitments, deposit or bond redemption, and prepayments, either on mortgages or term loans, as well as the timing of maturities within the gap period. Depending on the interest rate environment, the mix of assets and liabilities (both on- and off-balance sheet), and the exercise of credit and deposit options by customers, these deficiencies may represent a significant interest rate risk to CEM.

Accordingly, CEM's gap reports should complement them with present-value sensitivity systems, such as duration analysis or simulation models.

Duration Analysis

Duration is the time-weighted average maturity of the present value of the cash flows from assets, liabilities and off-balance sheet items. It measures the relative sensitivity of the value of these instruments to changing interest rates (the average term to repricing), and therefore reflects how changes in interest rates will affect the institution's economic value; that is, the present value of equity. The maturity of an investment is used to provide an indication of interest rate risk. The longer the term to maturity of an investment, the greater the chance of interest rates movements and, hence, unfavorable price changes.

Duration measures how price-sensitive an asset, liability, or off-balance sheet item is to small changes in interest rates by using a single number to index the institution's interest rate risk. This index represents the average term to maturity of the cash flows.

Like other techniques to measure interest rate risk, the use of duration analysis is subject to limitations. Duration reflects a linear approximation to the price changes that constitute interest rate risk. However, changes in price and yields do not change linearly. The loan portfolio that is duration neutral when interest rates are at one level will not necessarily be duration neutral at

another level—that is, as interest rates change, duration will also change. This phenomenon is called duration drift.

Moreover, traditional duration analysis assumes that the cash flows of assets and liabilities are known, which may not always be the case. Option-adjusted duration models may assist in reflecting the variations in cash flows at different points in time due to the sensitivity of cash flows to changes in interest rates, and as a result of the exercise of asset and liability options across interest rate environments—that is, adjusting for events such as term deposit preencashments, prepayment of bond issues, and mortgage and term loan prepayments.

Limitations in using duration analysis arise from because matching the average term or duration of asset and liability cash flows does not eliminate all interest rate risk. For this reason, duration analysis should be used along with additional interest rate risk measures of cash flow mismatch and cash flow dispersion. These additional measurement techniques are essential if CEM is to control interest rate risks that cannot be summarized adequately in a single risk measure.

Simulation Models

Simulation models are a valuable complement to gap and duration analysis. Simulation models analyze interest rate risk in a dynamic context. They evaluate interest rate risk arising from both current and future business and provide a way to evaluate the effects of strategies to increase earnings or reduce interest rate risk. Simulation models are also useful for strategic planning; they permit management to effectively integrate risk management and control into the planning process. Their forecasts are based on a number of assumptions, including:

1. Future levels and directional changes of interest rates;

2. The slope of the yield curve and the relationship between the various indices that the institution uses to price credits and deposits;

3. Pricing strategies for assets and liabilities as they mature; and

4. The growth, volume, and mix of future business.

Simulation is usually used to measure interest rate risk by estimating what effect changes in interest rates, business strategies, and other factors will have on net interest income, net income, and interest rate risk positions. Simulation models can also be used to calculate the present value and duration of assets and liabilities.

Liquidity Management

Managing liquidity is a fundamental component in the safe and sound management of a finance company. Sound liquidity management involves prudently managing assets and liabilities (on- and off-balance sheet), both for cash flow and concentration, to ensure that cash inflows have an appropriate relationship to approaching cash outflows. This needs to be supported by a process of liquidity planning that assesses potential future liquidity needs, taking into account changes in economic, political, regulatory, or other operating conditions. Such planning involves identifying known, expected, and potential cash outflows and weighing alternative asset/liability management strategies to ensure that adequate cash inflows will be available to the institution to meet these needs.

The objectives of liquidity management include:

1. Honoring all cash outflow commitments (both on- and off-balance sheet) on an ongoing, daily basis;

2. Avoiding raising funds at market premiums or through the forced sale of assets; and

3. Satisfying statutory liquidity and statutory reserve requirements, if any.

A comprehensive liquidity management program requires:

1. Establishing and implementing sound and prudent liquidity and funding policies; and

2. Developing and implementing effective techniques and procedures to monitor, measure, and control the institution's liquidity requirements and position.

Liquidity Policies

Sound and prudent liquidity policies set out the sources and amount of liquidity required to ensure that liquidity is adequate to ensure the continuation of operations and to meet all applicable regulatory requirements. These policies must be supported by effective procedures to measure, achieve, and maintain liquidity.

Operating liquidity is the liquidity required to meet the institution's day-to-day cash outflow commitments. Operating requirements take account of asset/liability management techniques for controlling liquidity through the management of cash flows, supplemented by assets that are readily convertible to cash or by CEM's ability to borrow from the market.

Factors influencing operating liquidity include:

1. Cash flows and the extent to which expected cash flows from maturing assets and liabilities match; and

2. The diversity and stability of funding sources the ability to renew or replace deposits and the capacity to borrow.

For regulatory purposes, CEM may be required to hold a specific amount of assets classed as ☒liquid,", based on its deposit liabilities. Generally, undue reliance should not be placed on these assets, or those normally pledged, for operating purposes other than as a temporary measure, because they may not be legally available for encashment if needed.

In assessing the adequacy of liquidity, CEM management needs to accurately and frequently measure:

1. The term profile of current and approaching cash flows generated by assets and liabilities, both on- and off-balance sheet;

2. The extent to which potential cash outflows are supported by cash inflows over a specified period of time, maturing or liquifiable assets, and cash on hand;

3. The extent to which potential cash outflows may be supported by CEM's ability to borrow or to access discretionary funding sources; and

4. The amount of statutory liquidity required and maintained.

Essentially, operating liquidity is adequate if approaching cash inflows, supplemented by assets that are readily convertible to cash or by CEM's ability to borrow are sufficient to meet approaching cash outflow obligations. Because the timing and amount of these cash flows are not completely predictable because of risks such as credit defaults, and events such as honoring customer draw-downs on credit commitments, deposit redemption, and prepayments, either on mortgages or term loans, sound and prudent liquidity policies must account for this uncertainty by carefully controlling the maturity of assets, ensuring that assets are readily convertible to cash, or securing sources to borrow funds.

Liquid assets should have the following attributes:

1. Diversified, residual maturities appropriate for CEM's specific cash flow needs;

2. Readily marketable or convertible into cash; and

3. Minimal credit risk.

Holding assets in liquid form for liquidity purposes will often involve some loss of earnings capacity against other investment opportunities. Nevertheless, the primary objective in managing the liquid asset portfolio is to ensure its quality and convertibility into cash.

Liquidity lines and funding facilities may also have a role within an institution's liquidity program by helping it protect itself against temporary difficulties that might occur when honoring cash outflow commitments. Examples are the need to draw on credit facilities to meet unforeseen clearing commitments, and to meet credit commitments with drawdown at a customer's option. Undue reliance should not be placed on these facilities (including those that may be irrevocable or for which a fee is paid) as substitutes for traditional funding sources because they are generally short term, they are costly compared with other funding sources, and their availability could be withheld by the provider of the facility. CEM's management, using these sources for liquidity, needs to ensure that the provider of a facility has an appropriate credit standing and capacity.

Funding Policies

Donor-funded loans, grants, bond issues, and sundry deposit liabilities are primary funding sources. An important element of CEM's liquidity management program is the diversification of funding by origination and term structure. CEM management will develop explicit and prudent policies to ensure that funding is not unduly concentrated with respect to:

1. Individual depositor;

2. Type of deposit instrument;

3. Market source of deposit;

4. Term to maturity; and

5. Currency of deposit, if the institution has liabilities (both on- and off-balance sheet) in foreign currencies.

The primary funding risk is the unplanned deposit withdrawal or the reduced rate of deposit renewal at the time of maturity. Deposits may decline because of a loss of confidence in the institution, a general decline in savings, more attractive investments elsewhere, or other factors.

Concentrated funding sources leave an institution open to potential liquidity problems as a result of unexpected deposit withdrawals and may also restrict its flexibility in managing its cash flow. Should management find itself with excessive funding concentrations, it may require additional liquid assets.

Specific deposit concentration risks are the reliance on brokered deposits and the reliance on wholesale deposits. Brokered and wholesale deposits may be unstable sources of funds. The market for brokered retail deposits, for example, is highly competitive. A slight decrease in the interest paid by the institution that relies on brokered deposits may cause depositors to transfer funds to more attractive alternatives. Similarly, a broker may look elsewhere if the institution reduces its commission. The heavy reliance on wholesale funding (domestically or internationally) may encounter deposit loss because of economic or political events that affect CEM's risk rating.

Retail and wholesale deposit brokers improve the efficiency and effectiveness of money markets by permitting some depositors to make deposits easily and at competitive interest rates. Brokers often have interest rate information for a number of financial institutions, which eliminates the need for depositors to make their own inquiries. These markets also permit financial institutions without an extensive branch network in a particular market to compete with entities that have such a presence by eliminating the overhead costs associated with branch networks.

Although the use of the brokered retail deposit and wholesale money markets may help diversify funding sources, prudence dictates that in instances where financial institutions rely on these sources of funds, they must have additional policies and procedures to ensure that:

1. Deposits are accepted only from retail deposit brokers approved by the asset liability committee;
2. Agreements are in place between CEM and retail deposit brokers that set out the terms and conditions of the responsibilities of both parties in the agency arrangement;
3. Deposits are appropriately documented; and
4. Concentration of deposits from a single broker, agent, bank, or depositor is avoided.

In the context of foreign currency deposits, funding policies also need to ensure that foreign currency cash flows are prudently managed and controlled within the policies and procedures set out under CEM's foreign exchange risk management program.

Liquidity Management and Control Procedures

CEM management will develop and implement effective and comprehensive procedures and information systems to manage and control liquidity in accordance with its liquidity and funding

policies. These procedures must be appropriate to the size and complexity of its liquidity and funding activities.

Internal audits are a key element in managing and controlling CEM's liquidity management program. Management should use them to ensure that liquidity management complies with liquidity and funding policies and procedures. Internal audits should, at a minimum, randomly test all aspects of liquidity management in order to:

1. Ensure that liquidity and funding policies and procedures are being adhered to;

2. Ensure effective controls apply to managing liquidity;

3. Verify the adequacy and accuracy of management information reports; and

4. Ensure that personnel involved in liquidity management fully understand CEM's liquidity and funding policies and have the expertise required to make effective decisions that are consistent with the liquidity and funding policies.

Assessments of the liquidity management operation should be presented to the board of directors on a timely basis for review.

Foreign Exchange Risk Management

Managing foreign exchange risk is a fundamental component in the safe and sound management of financial institutions that have exposures in foreign currencies. It involves prudently managing foreign currency positions in order to control, within set parameters, the impact of changes in exchange rates on the institution's financial position. The frequency and direction of rate changes, the extent of the foreign currency exposure, and the ability of counter-parties to honor their obligations to the institution are significant factors in foreign exchange risk management.

A comprehensive foreign exchange risk management program requires:

1. Establishing and implementing sound and prudent foreign exchange risk management policies; and

2. Developing and implementing appropriate and effective foreign exchange risk management and control procedures.

Foreign Exchange Risk Management Policies

Well-articulated policies that set forth CEM's objectives in foreign exchange risk management strategy and the parameters within which that strategy is to be controlled are the focal point of effective and prudent foreign exchange risk management. These policies will include:

1. A statement of risk principles and objectives governing the extent to which CEM is willing to assume foreign exchange risk;

2. Explicit and prudent limits on CEM's exposure to foreign exchange risk; and

3. Clearly defined levels of delegation of trading authorities.

Statement of Foreign Exchange Risk Principles and Objectives

Before foreign exchange risk limits and management controls can be set, management must decide the objectives of its foreign exchange risk management program and, in particular its willingness to assume risk.

CEM's tolerance to assume foreign exchange risk will vary with the extent of other risks (e.g., liquidity, credit risk, interest rate risk, investment risk) and its ability to absorb potential losses. As with other aspects of financial management, a trade-off exists between risk and return. Although the avoidance of foreign currency exposure or the hedging of such exposure may eliminate foreign exchange risk, such a position may not be desirable for other sound business reasons. Accordingly, the objective of foreign exchange risk management need not necessarily be the complete elimination of exposure to changes in exchange rates. Rather, it should be to manage the impact of exchange rate changes within self-imposed limits after careful consideration of a range of possible foreign exchange rate environments.

Foreign Exchange Risk Limits

CEM management will establish explicit and prudent foreign exchange risk limits, and ensure that the level of its foreign exchange risk exposure does not exceed these limits. Where applicable, these limits need to cover, at a minimum:

1. The currencies in which CEM is permitted to incur exposure; and
2. The level of foreign currency exposure that it is prepared to assume including:

    - Overnight and forward limits on each currency or pairing of currencies in which it is authorized to have exposure; and
    - Aggregate overnight and forward limits on all currencies in which CEM is authorized to have exposure.

Foreign exchange risk limits need to be set within CEM's overall risk profile that reflects factors such as its capital adequacy, liquidity, credit quality, investment risk, and interest rate risk. Foreign exchange positions should be managed within management's ability to quickly cover such positions if necessary. Moreover, foreign exchange risk limits need to be reassessed on a regular basis to reflect potential changes in exchange rate volatility, CEM's overall risk philosophy, and risk profile.

Authorized currencies will normally include currencies in which CEM may be called on to settle foreign exchange transactions. These are usually the currencies in which CEM or its customers conduct business.

Limits on CEM's foreign exchange exposure should reflect both the specific foreign currency exposures that arise from daily foreign currency dealing or trading activities (transactional positions) and those exposures that arise from the overall asset/liability infrastructure, both on- and off-balance sheet (structural or translational positions). The establishment of aggregate foreign exchange limits that reflect both foreign currency dealing and structural positions helps to ensure that the size and composition of a structural position and a foreign currency trading position are appropriately and prudently managed and controlled and do not undermine CEM's overall foreign exchange exposure.

Usually, risk limits are established in terms of a relationship between the foreign exchange position and earnings or capital, or in terms of foreign exchange volume, such as total dollars or numbers of transactions.

Except in situations where CEM uses the clearing and settlement services of a central or common clearing institution that also serves as a guarantor for all outstanding contracts, the policies for foreign currency trading operations also need to contain settlement limits for each counter-party. Although the overall assessment of foreign exchange counter-parties is an integral component of any foreign exchange operation, this may be conducted by CEM's credit risk management function, thus obviating the need for separate counter-party assessment within its foreign exchange operations.

Delegation of Authority

Clearly defined levels of delegated authority will help to ensure that CEM's foreign exchange positions do not exceed the limits established under its foreign exchange risk management policies. Authorities may be absolute, incremental, or a combination thereof, and may also be individual, pooled, or shared within a committee.

The delegation of authority will be clearly documented, and must include at a minimum:

1. The absolute and/or incremental authority being delegated;
2. The units, individuals, positions, or committees to whom authority is being delegated;
3. The ability of recipients to further delegate authority; and
4. The restrictions, if any, placed on the use of delegated authority.

The extent to which authority is delegated will include:

1. The foreign exchange risk philosophy;
2. The size and nature of the foreign exchange operations; and
3. The experience and ability of the individuals responsible for carrying out the foreign exchange risk management activities.

Foreign Exchange Risk Management and Control Procedures

By being engaged in foreign exchange activities, CEM is responsible for developing, implementing, and overseeing procedures to manage and control foreign exchange risk in accordance with its foreign exchange risk management policies.

These procedures must be at a level of sophistication that is commensurate with the size, frequency, and complexity of the foreign exchange activities.

Foreign exchange risk management procedures need to include, at a minimum:

1. Accounting and management information systems to measure and monitor foreign exchange positions, foreign exchange risk, and foreign exchange gains or losses;
2. Controls governing the management of foreign currency activities; and
3. Independent inspections or audits.

Measurement of Foreign Exchange Risk

Managing foreign exchange risk requires a clear understanding of the amount at risk and the impact of changes in exchange rates on foreign currency exposure. To make these determinations, sufficient information must be readily available to permit appropriate action to be taken within acceptable, often very short, time periods.

It is only through the accurate and timely recording and reporting of information on exchange transactions and currency transfers that foreign currency exposure can be measured and foreign exchange risk controlled. Accordingly, whenever CEM is engaged in foreign exchange activities, management needs to have an effective accounting and management information system in place that accurately and frequently records and measures its foreign exchange exposure and the impact of potential exchange rate changes on the institution.

At a minimum, CEM should have in place monitoring and reporting techniques that measure:

1. The net overnight and forward positions in each currency or pairing of currencies in which CEM is authorized to have exposure;
2. The aggregate net overnight and forward positions in all currencies; and
3. Transactional and transitional gains and losses relating to trading and structural foreign exchange activities and exposures.

Control of Foreign Exchange Activities

Controls over foreign exchange activities provide safeguards to protect CEM from potential losses by ensuring that unauthorized exposure does not occur and that foreign exchange activities are conducted according to standard policies and procedures. Control over the foreign exchange function ensures that CEM is not exposing itself to a risk that results from an improper or uncontrolled foreign exchange strategy.

Although the controls over foreign exchange activities may vary from time to time, depending on the nature and extent of the foreign exchange activities, the key elements of any foreign exchange control program are well defined procedures governing:

- Institutional controls to ensure that there exists a clear and effective segregation of duties between those persons who:

1. Initiate foreign exchange transactions; and
2. Are responsible for operational functions such as arranging prompt and accurate settlement, and timely exchanging and reconciliation of confirmations, or account for foreign exchange activities;

- Procedural controls to ensure that:

1. Transactions are fully recorded in the records and accounts;
2. Transactions are correctly settled; and

3. Unauthorized dealing is promptly identified and reported to management, and controls to ensure those foreign exchange activities are frequently monitored against the foreign exchange risk, counter-party, and other limits and that excesses are reported.

Moreover, management needs to ensure that employees conducting foreign exchange trading activities on its behalf do so within a written code of conduct governing foreign exchange dealing. Such a code of conduct should include guidance that respects trading with related parties and transactions in which potential conflicts of interest exist. These should include trading with affiliated entities, personal foreign exchange trading activities of foreign exchange traders, and foreign exchange trading relationships with foreign exchange and money market brokers with whom CEM deals. Management should ensure that these guidelines are periodically reviewed with all foreign exchange traders.

The use of hedging techniques is one means of managing and controlling foreign exchange risk. In this regard, many different financial instruments can be used for hedging purposes; the most commonly used, however, are derivative instruments. Examples include forward foreign exchange contracts, foreign currency futures contracts, foreign currency options, and foreign currency swaps. Generally, few financial institutions will need to use the full range of hedging techniques or instruments. Management should consider which ones are appropriate for the nature and extent of its foreign exchange risk activities, the skills and experience of management, and the capacity of foreign exchange rate risk reporting and control systems.

Financial instruments used for hedging are not distinguishable in form from instruments that may be used to take risk positions. Before using hedging products, management must ensure that it understands the hedging technique and satisfied that the instrument meets their specific hedging needs in a cost-effective manner.

Furthermore, the effectiveness of hedging activities should be assessed not only on the basis of the technical attributes of individual transactions, but also in the context of the overall risk exposure of the institution resulting from a potential change in asset/liability mix and other risk exposures such as credit, interest rate, and position risk.

Hedging activities need to take place within the framework of a clear hedging strategy, the implications of which are well understood by management under varying market scenarios. In particular, the objectives and limitations of using hedging products should be uniformly understood, so as to ensure that hedging strategies result in an effective hedge of an exposure rather than the unintentional assumption of additional or alternate forms of risk.

Independent Audits

Independent audits are a key element in managing and controlling a financial institution's foreign exchange risk management program. CEM management should use them to ensure compliance with and the integrity of the foreign exchange policies and procedures. Independent inspections/audits should, at a minimum, and over a reasonable period of time, test the foreign exchange risk management activities in order to:

1. Ensure foreign exchange management policies and procedures are being adhered to;

2. Ensure effective management controls over foreign exchange positions;

3. Verify the adequacy and accuracy of management reports on the foreign exchange risk management activities;

4. Ensure that foreign exchange hedging activities are consistent with the foreign exchange risk management policies, strategies, and procedures; and

5. Ensure that personnel involved in foreign exchange risk management have accurate and complete information about the institution's foreign exchange risk policies and risk limits and have the expertise required to make effective decisions that are consistent with the foreign exchange risk management policies.

Assessments of the foreign exchange risk operations should be presented to the board of directors on a timely basis for review.

Investment Portfolio Management

Managing the securities portfolio is a fundamental component of safe and sound management. Sound securities portfolio management involves prudently managing the risk/reward relationship and controlling and minimizing securities portfolio risks across a variety of dimensions, such as quality, portfolio concentration/diversification, maturity, volatility, marketability, type of security, and the need to maintain adequate liquidity.

A comprehensive securities portfolio management program requires:

1. Establishing and implementing sound and prudent policies to effectively manage the securities portfolio, securities activities, and position risk;
2. Developing and implementing effective securities portfolio management processes governing securities investment decision making and authority; and
3. Developing and implementing comprehensive procedures to effectively monitor and control the nature, characteristics, and quality of the securities portfolio and the extent of position risk assumed.

Securities Portfolio Management Policies

The foundation of an effective securities portfolio management program is the development and implementation of clearly defined policies, formally established in writing, that set out securities portfolio management objectives and the parameters under which securities activities are to be undertaken and controlled.

CEM management will establish explicit and prudent securities portfolio management objectives governing:

1. The extent to which CEM is willing to assume position risk;
2. General areas of securities activities in which CEM is prepared to engage or is restricted from engaging, including its policy for acquiring securities of related parties;
3. Minimum quality and rate of return expectations for the securities portfolio;

4. The selection of securities dealers and other counter-parties with whom CEM is authorized to deal or is restricted from dealing with; and
5. Securities portfolio concentration and exposure limits.

Securities portfolio management objectives reflect CEM's risk philosophy, codify investment criteria, establish the foundation for the development of securities portfolio management strategies, and provide the basis for monitoring portfolio characteristics and measuring portfolio performance. Securities portfolio objectives provide overall parameters governing securities investment decisions by describing the broad purpose and goals of securities investments as a means for profitability. Securities portfolio objectives assist in ensuring that securities investments are sound and prudent, and that the securities portfolio risk is acceptable given the expected return.

In establishing securities portfolio management objectives, management needs to give consideration to a number of factors, including the nature of CEM's liabilities, its liquidity needs, market volatility, the extent of other risks assumed (e.g., credit risk, interest rate risk, foreign exchange risk), its ability to absorb potential losses, and its overall strategic business objectives. A portfolio of securities with relatively high-risk characteristics such as equities and high yield/low investment grade debt instruments is generally not a suitable asset given CEM's interest-bearing liability structure. Accordingly, such securities should not normally constitute a significant proportion of CEM's asset portfolio, either on- or off-balance sheet.

To be effective, securities portfolio management objectives must be communicated in a timely fashion, be implemented through all levels of the institution by appropriate procedures, and revised periodically in light of changing circumstances.

Securities Portfolio Management Philosophy

The securities portfolio management philosophy is a statement about the willingness of the institution to engage in securities portfolio investment activities and to assume position risk. The securities portfolio management philosophy will vary with the nature and complexity of CEM's business activities, liquidity management needs, the extent of other risks assumed, and its ability to absorb potential losses.

General Areas of Securities Activities

A statement of the general areas of securities activities in which CEM is prepared to engage usually specifies types of securities, issuers, industry, or geographic sectors on which it may focus its securities investment activities, or may establish constraints on its securities investment activities. This statement should include CEM's policy on acquiring securities from and of related parties, and in situations of potential conflict of interest.

To assist in ensuring that specific securities are within permitted areas of securities activities, and meet CEM's securities portfolio management objectives, management should consider maintaining a list of securities, categories, or issuers that CEM is authorized or not permitted to engage in (or with).

Securities Portfolio Quality and Return Objectives

Objectives governing the quality of securities that may be held in a securities portfolio are usually stated in terms of minimum acceptable credit or investment rating for securities investments or issuers of securities (such as those established in-house or by independent rating agencies for securities), or an approved list of securities or issuers of securities. Objectives that respect the acceptable return for a portfolio of securities are usually stated in terms of return on investment and should consider CEM's cost of funds and effective after-tax return on investment.

Individual security/issuer selection should be made taking into consideration the overall quality and return objectives established for the portfolio. Although there may be certain securities or issuers that do not meet the portfolio risk/return criteria, when combined with other securities or investments in like issuers, may yield an appropriate overall return.

*Selection of Securities Dealers and Other Counter-parties***Error! Bookmark not defined.**

It is important that management has sufficient confidence in the ability of the securities dealers and other counter-parties with whom they are dealing to fulfill their commitments. Moreover, CEM management may rely on the expertise and advice of a securities dealer for recommendations about proposed securities alternatives and portfolio strategies and for the timing and pricing of securities transactions. In this context, except in situations, in which a member settles securities transactions with counter-parties on a value for value basis, each member needs to:

1. Establish in writing sound and prudent securities dealer selection and retention criteria;
2. Maintain a list of securities dealers and other counter-parties with whom they are authorized to conduct business; and
3. Establish and periodically review sound and prudent limits on the dollar or volume amounts, or types of transactions that may be executed with each authorized securities dealer and counter-party.

Securities Portfolio Concentration Limits

Clearly defined and documented securities portfolio concentration limits ensure that the nature and level of CEM's exposure in the form of either securities or credit positions is appropriately diversified and does not exceed sound and prudent limits.

Securities portfolio concentration occurs when the securities portfolio contains an excessive level of exposure to:

1. One type or class of security; or
2. Single and groups of associated issuers of securities.

Excessive concentration is contrary to the sound investment principle of adequate diversification and renders CEM vulnerable to adverse price changes in the area where exposures are concentrated. Determining whether or not an undue concentration risk exists is a matter of judgment. As with other aspects of financial management, a tradeoff exists between risk and return. Although the avoidance of concentrated security positions or the hedging of such

exposures may mitigate position risk, such a securities portfolio management policy may not be desirable for other sound business reasons. Accordingly, the objective of securities portfolio management need not necessarily be the complete elimination of exposure to changes in market prices of securities. Rather, it should be to manage the securities portfolio's risk and return and the impact of price changes within self imposed limits after careful consideration of a range of market price environments.

At a minimum, securities portfolio diversification policies must place sound and prudent aggregate and individual exposure limits for each type or class of security, and for single and related issuers and groups of associated issuers in which CEM is permitted to invest. Usually, limits by class of security include limits for how much of the portfolio should be made up of specific types of securities such as equities and the portfolio concentration by geographic and industrial sector. Such limits need to be established in the context of CEM's aggregate exposure to a single issuer or a group of associated issuers in terms of both securities and credit exposures. The management of such aggregate exposures is usually done by senior securities traders and lending personnel to ensure that an appropriate firewall is maintained between the securities portfolio and credit risk management areas.

1. Securities concentrations by single or associated issuer need to be reviewed regularly to ensure that prior considerations have not changed to an extent that warrants reclassification.
2. Securities portfolio concentration limits are usually defined either in absolute dollar (or other currency unit) or volume terms or in terms of CEM's capital or assets.
3. To develop and maintain a sound securities portfolio, CEM management must have:

    - An effective formal evaluation process that provides for an objective analysis and assessment of securities investment proposals; and
    - Clearly defined, prudent, and appropriate levels of delegation of securities transaction approval authority formally established in writing.

Securities Analysis and Assessment

Prudence suggests that securities investment decisions be made only after careful examination and consideration of several areas, including:

1. The institution's securities portfolio management policies, and other institutional objectives and policies, such as the nature of its liabilities and the need to maintain adequate liquidity.
2. Potential risks and returns related to a particular security in the overall context of the securities portfolio management policies, the composition of the securities portfolio and the reasonable expectation of a fair return or appreciation given the nature of the security, and the risk of loss or impairment;
3. Current and projected regulatory and economic/financial environment under which securities transactions are made; and
4. Investment alternatives.

Securities Transaction Approval Authorities

Clearly defined and appropriate levels of securities transaction authority help ensure that CEM's securities activities are appropriately undertaken and that securities positions do not exceed the limits established under its securities portfolio management policies.

Approval limits may relate to type of security, size, maturity, or other criteria, such as the retention or delegation of voting rights acquired through securities. Authorities may be absolute, incremental, or a combination thereof, and may also be individual, pooled, or shared within a committee.

The delegation of authority needs to be clearly documented, and should include as a minimum:

1. The absolute and/or incremental securities transaction approval authority being delegated;
2. The units, individuals, positions, or committees to whom securities transaction authority is being delegated;
3. The ability of recipients to further delegate approval authority; and
4. The restrictions, if any, placed on the use of delegated authority.

The degree of delegation of securities transaction authority will depend on a number of variables including:

1. CEM's securities portfolio management objectives and overall risk philosophy;
2. The quality of the securities portfolio;
3. CEM's ability to absorb losses;
4. The size and types of securities and the complexity of risks being assessed; and
5. The experience and ability of the individuals responsible for carrying out the securities portfolio management activities.

Securities Portfolio Management Monitoring Procedures

CEM management will develop and implement effective and comprehensive procedures, accounting policies, and information systems to monitor and manage the characteristics and quality of its securities portfolio. These procedures should be appropriate to the size and complexity of CEM's securities activities and, at a minimum, need to include:

1. Systems to measure and monitor securities positions;
2. Controls governing the management of the securities portfolio; and
3. Independent inspections or audits.

Securities Portfolio Monitoring

Managing securities activities requires a clear understanding of the nature and characteristics of the securities portfolio and securities positions. To make these determinations, management needs to ensure that:

1. Effective information systems are developed and used to appropriately record, and regularly monitor and evaluate the securities portfolio;
2. Effective and appropriate quality and performance criteria are developed and implemented, and that the portfolio is regularly assessed against these criteria; and
3. Appropriate and conservative accounting policies and procedures are developed, documented and implemented for Properly classifying and carrying securities on the books of CEM's account ; and recognizing income related to such securities.

Regular evaluations of the securities portfolio should be carried out to provide an effective means of ensuring that portfolio performance and quality are meeting its securities portfolio management policies and objectives, and that the portfolio is not unduly concentrated by type of security, and by single and associated groups of issuers.

Securities Portfolio Management Controls

Sound securities portfolio management dictates that effective procedures be established and followed to execute securities transaction decisions and the management/custody of securities.

Effective procedures and controls ensure that securities activities are in compliance with CEM's securities portfolio management policies and provide safeguards to protect it from potential losses by ensuring that unauthorized exposure does not occur from improper or uncontrolled securities activities.

The key elements of any securities portfolio management control program are well-defined guidelines governing:

Institutional controls to ensure that there exists a clear and effective segregation of duties between those persons who:

1. Authorize, initiate or supervise securities activities;
2. Are responsible for operational functions such as the physical custody of securities, or
3. Arranging prompt and accurate settlement of securities transactions, or account for
4. Securities activities;

Procedural controls ensure that:

1. Securities are properly recorded and accounted for by CEM;
2. Securities transactions are settled in a timely and accurate manner;
3. Securities are appropriately safeguarded (including, where the member uses the services of third-party;
4. Depositories for securities, procedures to ensure that such depositories have established appropriate procedures to obtain and maintain possession or control of securities purchased on behalf of the member);
5. Unauthorized securities activity is promptly identified and reported to management; and

6. Controls to ensure that securities activities are monitored frequently against CEM's securities portfolio management policies and risk limits, and excesses reported.

Moreover, CEM management needs to ensure that employees who conduct securities trading activities do so within a written code of conduct or guidelines that govern securities dealing. Such guidelines or code of conduct should provide guidance respecting trading with related parties and transactions in which potential conflicts of interest exist. These should include trading with affiliated entities, personal trading and investment activities of securities portfolio management personnel, including trading on insider information and taking personal gain from one's position, and trading relationships with securities dealers with whom CEM deals. Management should ensure that these guidelines are periodically reviewed with all securities portfolio management personnel.

The use of hedging techniques is one means of managing and controlling securities portfolio exposures. Many different financial instruments can be used for hedging purposes; the more commonly used, however, are derivative financial instruments. Examples include futures contracts, options, and market price indices. Management will generally need to use the full range of hedging techniques or instruments. Management should consider which techniques or instruments are appropriate for the nature and extent of its securities activities, the skills and experience of management, and the capacity of reporting and control systems.

Financial instruments used for hedging may not be distinguishable in form from instruments that may be used to take risk positions.

Before using hedging products, CEM management must ensure that they understand the hedging technique and that they are satisfied that the instrument meets their specific hedging needs in a cost-effective manner.

Further, the effectiveness of hedging activities should be assessed not only on the basis of the technical attributes of individual transactions, but also in the context of CEM's overall risk exposure resulting from a potential change in asset/liability mix and other risk exposures such as credit, interest rate, and foreign exchange risk.

Hedging activities need to take place within the framework of a clear hedging strategy, the implications of which are well understood under varying market scenarios. In particular, the objectives and limitations of using hedging products should be uniformly understood to ensure that hedging strategies result in an effective hedge of an exposure rather than the unintentional assumption of additional or alternate forms of risk.

Independent Audits

Independent audits are a key element in managing and controlling CEM's securities activities. They provide an objective assessment of the securities portfolios' existence, quality, and value, the integrity of the securities portfolio management process, and they promote the detection of related problems. Management should use them to ensure compliance with and integrity of the securities portfolio management policies and procedures. Independent audits should, at a minimum, and over a reasonable period of time, test CEM's securities portfolio management activities in order to:

1. Ensure that securities activities are in compliance with CEM's securities portfolio management policies and procedures, and with the laws and regulations to which these activities are subject;
2. Ensure that securities transactions are duly authorized and accurately and completely recorded on CEM's books;
3. Ensure that recorded securities exist and are conservatively valued on CEM's books;
4. Ensure that securities hedging activities are consistent with CEM's securities portfolio management policies, strategies, and procedures;
5. Confirm that securities held by depositories to the order of CEM conform with CEM records;
6. Ensure that management has established suitably designed controls over securities positions and that such controls operate effectively;
7. Ensure the adequacy and accuracy of management information reports regarding CEM's securities portfolio management activities; and
8. Ensure that personnel involved in securities portfolio management are provided with accurate and complete information on CEM's securities portfolio management policies and risk limits and have the expertise required to make effective decisions consistent with these policies.

Assessments of the securities portfolio management activities should be presented to the board of directors on a timely basis for review.

Internal Control and Audit

Role of Board of Directors

The board of directors is ultimately responsible for ensuring that CEM is managed and operated in a safe and sound manner. In discharging this responsibility, the board provides ongoing direction to the institution and, among other responsibilities, it ensures that CEM has adequate and effective internal controls.

At a minimum, the board of directors will ensure:

1. That operations are in the hands of qualified and competent management;
2. That internal controls are appropriate and effective by reviewing and approving the institutional controls based on recommendations by:

a) Periodically reviewing reports from the independent audit function to verify that CEM's institutional and procedural controls are in place and being complied with;

b) Reviewing any recommendations from regulators and external auditors respecting their assessment of the effectiveness of the institution's internal controls that come to their attention in the conduct of their work; and

c) That the institution has an independent audit function to monitor the effectiveness of institutional and procedural controls.

The board of directors is to have a means of ensuring compliance with internal controls. It also ensures compliance through periodic reporting by management and independent auditors. The reports must provide sufficient information to satisfy the board of directors that institutional and

procedural controls are in place and operating within the framework of an appropriate and effective internal control environment.

Role of Management

CEM's management is responsible for developing and implementing internal controls, and the control environment within which these controls are applied, to ensure that it operates in a safe and sound manner. This includes the following:

1. Developing and recommending institutional controls for approval by the board of directors;
2. Implementing the institutional controls;
3. Developing and implementing CEM's procedural controls, including the development and implementation of appropriate and effective management information systems to monitor and analyze existing and potential risks;
4. Ensuring that the institutional and procedural controls are in place and are effective
5. Ensuring that an independent audit function reviews and assesses the effectiveness of institutional and procedural controls; and
6. Reporting comprehensively on the institutional and procedural controls to the board of directors.

Code of Conduct

Although all business institutions rely on public confidence, this is especially true of financial institutions and institutions like CEM. As potential issuers of bonds and takers of loans and deposits, CEM is in a position of special trust, that of guardian of these funds — and consequently will conduct its affairs according to the highest standards of ethical behavior. A strong ethical institutional climate at all levels is vital to the well being of CEM, its shareholders, and funding sources.

The conduct of any institution is reflected in the actions of the individuals who act on its behalf — its board of directors, management, and employees. There must be ethical behavior in every decision that CEM makes. A code of conduct outlines the institution's approach to help representatives make these decisions consistently and alert them to potential problem areas. The code is to serve as a tool in promoting the practice of ethical decision making on a daily basis. In this way, a code of conduct creates conditions that are conducive to ethical behavior and therefore is an important element of the institution's internal control system that is designed to detect, and reports actions that are not ethical.

At a minimum, a comprehensive code of conduct requires the establishment of prudent and appropriate rules governing the proper business conduct and ethical behavior of CEM and its board of directors, management, and employees with respect to:

1. Complying with applicable legislation, regulations, and rules in the jurisdiction in which CEM operates;
2. Respecting the privacy of customer and institutional information;
3. Transactions relating to parties of the institution and other situations involving potential conflicts of interest;

4. Trading in securities generally and particularly in CEM securities and any affiliate;
5. Implementing an effective mechanism to ensure that directors, management, and employees understand and adhere to the code of conduct.
6. Having the code of conduct reviewed periodically by the board of directors and have them ratify its contents;
7. Having employees and management annually sign an acknowledgment indicating their awareness of the need to comply with the code.

Business Plan

A business plan is an important management and control document through which CEM will:

1. Identify opportunities of the marketplace, anticipate and initiate changes in strategic direction, and forecast results and highest financial and other resources that may be needed to achieve its plan:
2. Communicate business objectives throughout the institution;
3. Establish benchmarks against which performance can be monitored;
4. Outline current financial and strategic positioning in the marketplace;
5. Identify business objectives, including the core businesses or target markets;
6. Develop short- and long-term strategies for achieving those objectives, including potential risks to which the institution is exposed and assessing the key sources required to enable CEM management to achieve these objectives; and
7. Establish financial and other indicators against which CEM's performance may be measured and assessed.

This requires a formal process that:

1. Clearly allocates planning-related tasks and appropriate successive levels of plan approval within the institution; and
2. Ensures that adequate and appropriate information, scrutiny, and analysis support the conclusions, recommendations, projections, and assumptions set out in the plan.

Risk Identification, Evaluation and Management

CEM is subject to continual changes in its business environment that may affect its risk profile. These changes may arise from both external and internal sources, including economic, industry, and regulatory and operational changes.

Management will take steps to ensure that it has in place and applies sound and prudent policies and appropriate procedures and controls in order to prudently manage and control the significant risks to which CEM is exposed and the significant business activities in which it is engaged. A number of such significant risks and business activities are set out below and are known in the industry as Standards of Sound Business and Financial Practices.

This necessitates having in place an effective and appropriate reporting requirement or other method for:

1. Identifying and evaluating risk on an ongoing basis, the significant risks to which CEM is exposed, and their potential impact on the institution;
2. Ensuring that appropriate and effective institutional procedural controls are developed and implemented to prudently manage and control these risks;
3. Regularly reviewing CEM's institutional and procedural controls to manage the controls and risks to ensure that circumstances for which the controls originally were designed continue to apply and that they continue to be appropriate and effective;
4. Ensuring that effective and appropriate procedures are in place for planning, authorizing, and commencing new types new types of business activities, evaluating the risks involved, and establishing the necessary institutional and procedural controls, including the setting of sound and prudent exposure limits and risk management policies; and
5. Ensuring the overall risk profile of the institution is sound and prudent.

Human Resource Management/Training

Human resource policies and procedures assist CEM to ensure that its human resource requirements are identified and that it has the personnel required to prudently and effectively achieve its objectives. At a minimum, CEM's human resources program will include:

The development and orientation of long-range human resource plans to ensure that CEM has enough experienced and skilled personnel to carry out its business activities in a prudent manner, including:

1. A recruitment strategy;
2. A program for training and developing employees;
3. Selection criteria designed to ensure that personnel have the skills commensurate with their responsibilities;
4. A plan for management succession; and
5. Salaries to be determined from market surveys, and established at levels that attract and retain quality employees who are committed to CEM's financial performance.

Documentation of Controls

The documentation of CEM's institutional and procedural controls must:

1. Provide the necessary guidance to individuals who are responsible for CEM's policies, procedures, and controls; and
2. Assist in ensuring that the controls used are authorized, adequate, and current.

Documentation should describe each institutional and procedural control in detail.

Approval Authorities

Clearly defined responsibilities and levels of authority help to ensure that decisions are made by duly authorized persons who are in a position to assess their overall implications, that individuals report to an appropriate level of authority, and that delegated authority is adequate and

appropriate. Authority may be absolute or incremental, or a combination thereof, and may also be individual, pooled. or shared within a committee. The delegation of authority will be clearly documented and must specify at a minimum:

1. The absolute or incremental general or specific authority being delegated;
2. The units, individuals, positions, or committees to whom the authority is being delegated;
3. The authority of recipients to further delegate authority; and
4. The restrictions placed on the use of the delegated authority.

The extent that authority is delegated may vary from time to time according to the changing business climate including:

1. The types of risks being assessed; and
2. The experience of CEM's officers.

Segregation of Duties

Effective controls that respect the segregation of duties ensure that a clear and distinct separation of duties exists between persons who:

1. Authorize, supervise, initiate, or execute transactions; and
2. Record and account for transactions

The segregation of duties both between individuals and departments reduces the risk of intentional or unintentional manipulation or error by increasing the element of independent verification. The underlying principle is that no one person should be in a position to control sufficient stages of processing a transaction that errors or defalcations could occur without a reasonable chance of detection. Ideally, the flow of activity should be designed so that the work of one person is either independent of or serves as a check on the work of other persons.

Management Information Systems

CEM must have quality information at all levels to assist in making informed business decisions, to facilitate the effective management and control of its operations, and to facilitate external reporting.

Management information systems are those arrangements by which information about the institution's business, the state of its affairs, and the risks to which it is exposed is produced and supplied to management or groups of staff within the institution in a form that enables them to monitor, review, and act on the information in carrying out their responsibilities, as well as to external users of information such as the Central Bank of Madagascar and shareholders.

Reports and information generated from an effective management information system may also assist management to monitor compliance with certain internal controls, thereby providing some reasonable assurance that controls are being complied with and are functioning appropriately.

Management will develop, maintain, and develop comprehensive management information systems in order that sufficient, timely, and relevant information may be produced to enable CEM's business to be prudently managed and controlled.

At a minimum, CEM's management information system must ensure that relevant, accurate, and timely information is reported to appropriate persons within the institution to enable them to:

1. Identify, quantify, assess, and monitor business activities, exposure to risk, financial position, and performance and take effective decisions; and
2. Monitor the effectiveness of and compliance with its institutional and procedural controls and report any exceptions related to them.

The frequency with which information is prepared, its level of detail, and the amount of narrative analysis and explanation will depend on the level of authority to which it is addressed. Management information reports need to be prepared frequently enough to provide timely and relevant information about the business area or risk reported on.

The nature and importance of the procedure will determine the appropriate level of management required to undertake it. Internal control deficiencies need to be reported to those individuals or groups of individuals who have appropriate authority to rectify the situation. Serious deficiencies in policies, procedures, or controls should be brought to the attention of senior management, the audit function, and the board of directors.

It may be appropriate for some information to be presented as activity reports showing actual business activity or risk positions against norms, plans, or position limits or as exception reports that highlight exceptions from agreed limits.

Management information systems are to be reviewed regularly to assess the current relevance of information generated and the adequacy and quality of the system's performance over time.

Accounting and Record-Keeping Controls

Management will establish and maintain sufficient appropriate controls over accounting and other recordkeeping process both for on-balance and off-balance sheet assets and liabilities, including estate, trust, and agency, to reasonably ensure:

1. The completeness of the accounting system;
2. The accuracy of all amounts reported;
3. Timeliness of the reporting;
4. The validity of the transactions; and
5. The proper maintenance of records.

CEM will maintain accounting records according to international accounting standards and the Central Bank of Madagascar chart of accounts where laws or regulations requires these and in accordance within the policy statement outlined later in Accounting Standards and Principles."

Information Technology Controls

CEM's dependence on information technology such as computer systems and telecommunications will increase over time. The potential for loss or extended disruption of these systems presents significant risk to the institution. Internal control of these systems must

therefore be designed and implemented and, at a minimum, should, in addition to back-up and recovery procedures ensure that:

1. CEM's information technology strategy is consistent with the business plan and strategy;
2. Systems hardware and software satisfy this strategy; and
3. Systems are appropriately tested before they are implemented.

Operational and procedural controls are developed and implemented to ensure that changes to systems hardware, software, and data are properly authorized by the board of directors and are tested and implemented; and the system is appropriately documented, including a record of systems changes.

Information Technology Security Controls

These require the development and implementation of appropriate and effective:

1. Systems access security;
2. Business interruption back-up and recovery arrangements.

Systems security controls are required to ensure:

1. The integrity of the hardware, software, and data;
2. The physical access to system's hardware, software, and data is restricted to authorized persons only; and
3. That security devices and logical systems access sufficiently minimize the risk of unauthorized access to systems programs and data.

Business interruption controls need to ensure that CEM has adequate systems backup and recovery procedures and standby arrangements in case of interruption, destruction, or other loss of systems facilities, data files, hardware, software, and documentation; and the business interruption arrangements are periodically reviewed and tested.

Financial Management Standards and Principles

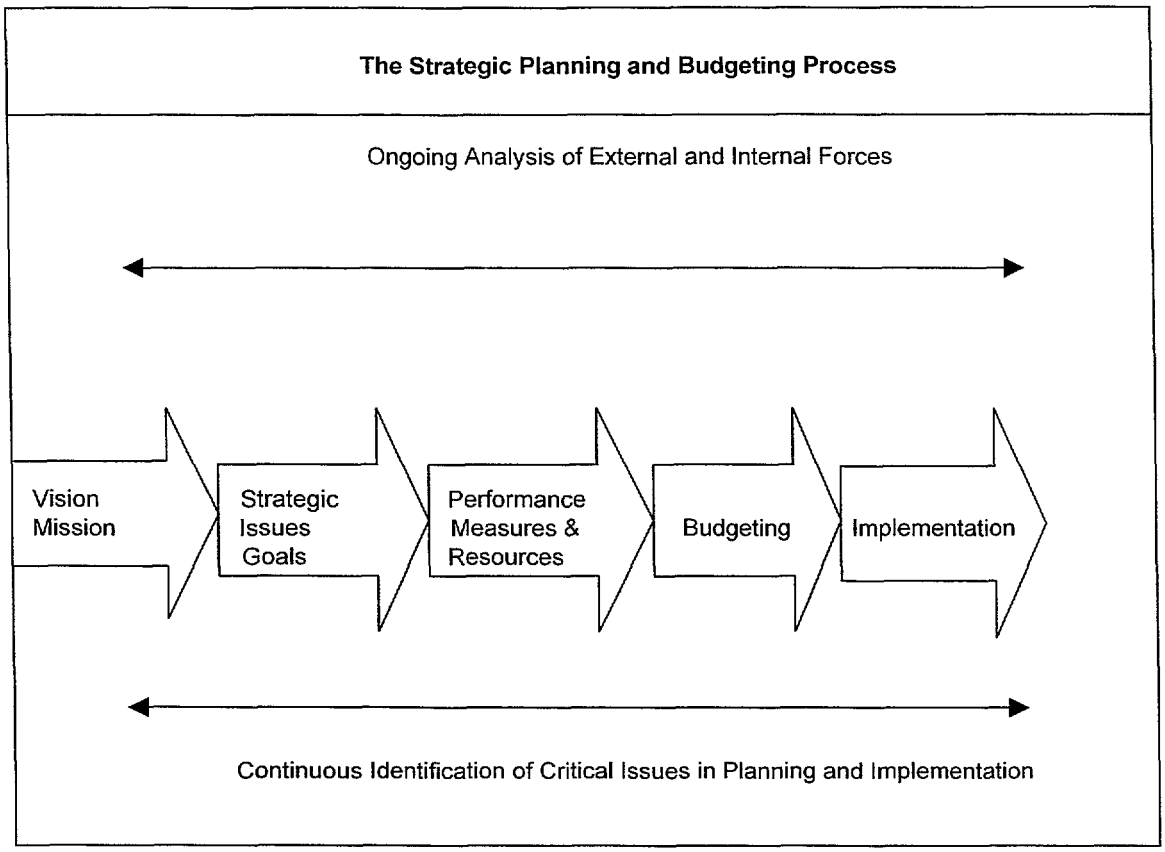
Planning and Budgeting

Purpose

The purpose of planning and budgeting is to provide CEM management to control the activities of the company and measures to correct variances from the planned goals.

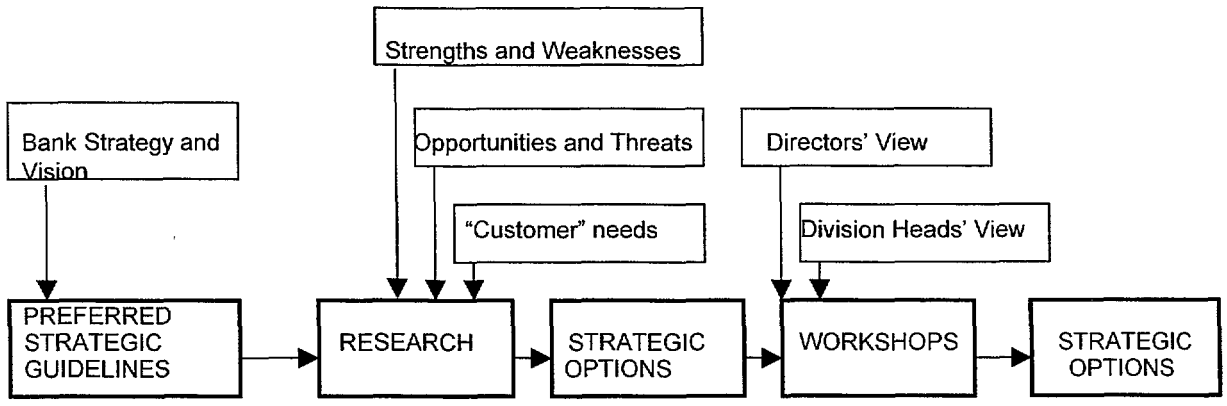
Planning process

The planning and budgeting exercise should be a comprehensive process that incorporates an analysis of the strengths and weaknesses of the organization and of the opportunities for the development of the business, while weighing the threats that could result from the chosen alternatives.



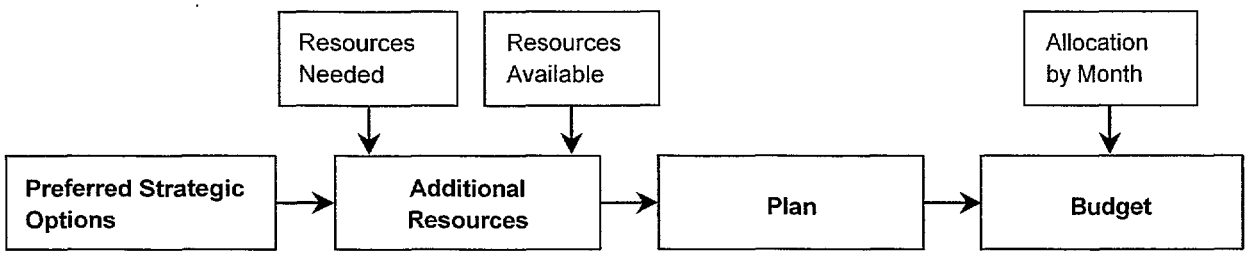
The process should follow a logic sequence:

- Bank strategy is defined by the managing director
- Present business and new opportunities are researched by division heads
- Strategic options that balance goals and feasibility are proposed by division heads
- Division heads present their reasoned views to the managing director
- Preferred strategic options are chosen by managing director

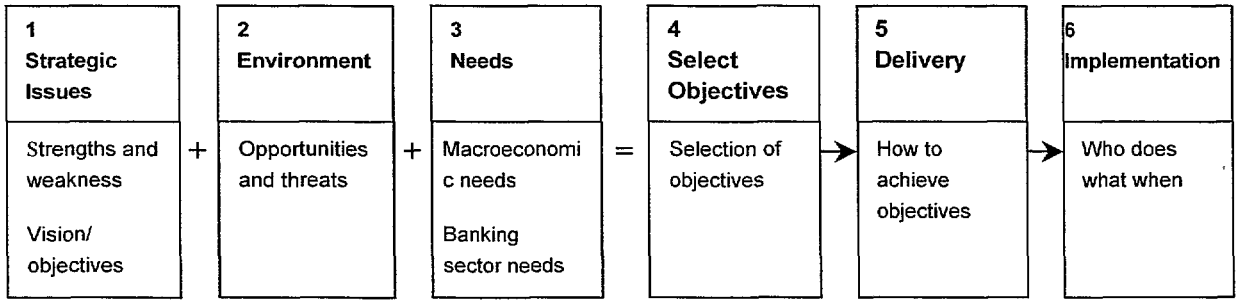


Once the strategic options are defined and accepted, the financial controller produces:

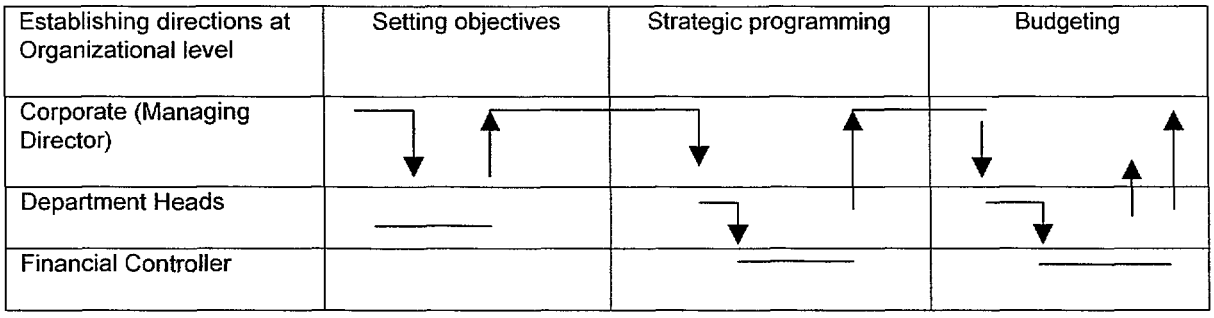
- Analysis of resources needed versus resources available;
- Quantification of assumptions (plan); and
- Monthly allocation of plan (budget).



Emphasis should be placed on the delivery of reasonable assumptions derived from feasible actions.



Consequently the process should integrate the experience and knowledge of the entire organisation through an ordered sequence.



Contents of the plan:

The plan should provide elements to analyze the basis for the results reflected in the financial statements:

General assumptions;

- Detail by territories (I.E. all the operational zones of the organization);
- Grants, loans and other projected funding sources;
- Loans by type (projects plan);
- New lines of business; and
- Resources needed (personnel, IT, overheads).

Financial statements included are:

- Balance sheet;
- Profit and loss account; and
- Cash-flow projections.

Budget

While the main purpose of the five year plan is to provide a framework that could be utilised as the basis for the strategy of the company, the budget intends to analyse the actual performance of the institution and permit the management the implementation of the measures required to achieve planned goals.

The key element in this task is the analysis of the variances. The analysis should include:

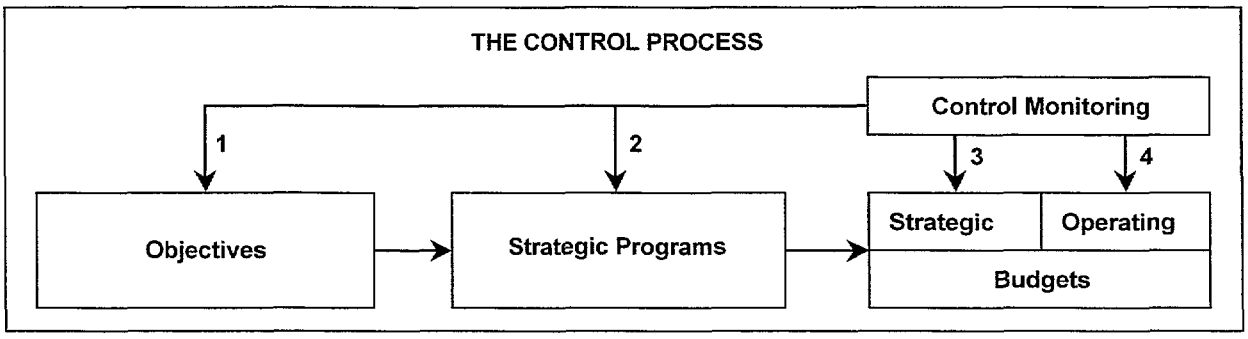
- Actual and planned amounts;
- Deviation (amount and percentage on planned);
- Explanation about the reasons (internal and external) if they are material; and
- Expected trend in the rest of the budget period.

If significant modifications to the assumptions on which the plan and budget were produced are required, both documents should be revised. In any case, and even without mediation of special circumstances, periodic revisions of the budget are necessary.

Plan and Budget Control

The control of the plan and budget has other areas than analysis of variances:

- Objectives are revised periodically by management in order to incorporate goals adapted to changing local conditions and updated company projects; and
- Strategies are adapted to the new situation and methods that are proved inefficient are modified.
- Objectives (1) are revised by the managing director;
- Strategic programs (2) are revised by department heads and approved by the managing director; and
- The financial controller revises the plan and budget (3 and 4).



Fixed Assets

Definition

Fixed assets are tangible assets that:

a) Are held by the company for use in the supply of services or for administrative purposes; and

b) Are expected to be used during more than one period.

Recognition

A fixed asset should be recognized as such when:

a) It is probable that future economic benefits associated with the asset, will flow to the company; and

b) The cost of the asset to the company can be reliably measured.

Components of Cost

An item of property, plant, or equipment, which qualifies for recognition as an asset, should initially be measured at its cost.

Cost includes, among other items:

a) Purchase price;

b) Installation costs; and

c) Initial delivery and handling costs.

Subsequent Expenditures

Subsequent expenditures for a fixed asset that has already been recognized should be added to the carrying amount of the asset when it is probable that future economic benefits, in excess of those originally assessed, will flow to the enterprise. All other subsequent expenditures should be recognized as expenses in the period in which they are incurred.

Revaluation

Subsequent to initial recognition as an asset, a fixed asset should be carried at its cost less any accumulated depreciation.

The cost reflected should be the fair one less the accumulated depreciation. Revaluation should be made regularly so that the carrying amount does not materially differ from one that is determined using fair value at the balance sheet date.

When a fixed asset is revalued, any accumulated depreciation at the date of the revaluation is either:

a) Restated proportionally with the change in the gross carrying amount of the asset so that after revaluation it equals its revalued amount. This method is often used when an asset is revalued by means of an index to its depreciated replacement cost; or

b) Eliminated against the gross carrying amount of the asset and the net amount restated to the revalued amount of the asset. This method is used mainly in the revaluation of buildings.

When a fixed asset is revalued, the entire class to which the asset belongs should be revalued. The items within a class are simultaneously revalued in order to avoid selective revaluation of assets and the reporting of amounts in the financial statements that are a mixture of costs and values as at different dates.

When an asset's carrying amount is increased as a result of a revaluation, the increase should be credited directly to equity under the heading "revaluation surplus." However, a revaluation increase should be recognized as income to the extent that it reverses a revaluation decrease of the same asset that was previously recognized as an expense.

When an asset's carrying amount is decreased as a result of a revaluation, the decrease should be recognized as an expense. However, a revaluation decrease should be charged directly against any related revaluation surplus to the extent that the decrease does not exceed the amount held in the revaluation surplus in respect of that same asset.

The revaluation surplus included in equity may be transferred directly to retained earnings when the surplus is realized. The transfer from revaluation surplus to retained earnings is not made through the income statement.

Depreciation

The depreciable amount of a fixed asset should be allocated on a systematic basis over its useful life. The depreciation method used should reflect the pattern in which the asset's economic benefits are consumed by the enterprise. The depreciation charge for each period should be recognized as an expense.

The useful life of an asset is the period of time over which an asset is expected to be used by the enterprise. The useful life of an asset should be reviewed periodically and, if expectations are significantly different from previous estimates, the depreciation charge for the current and future periods should be adjusted.

Retirements and disposals

A fixed asset should be eliminated from the balance sheet on disposal or when the asset is permanently withdrawn from use and no future economic benefits are expected from it.

Gains and losses arising from the retirement or disposal of an asset should be determined as the difference between the estimated net disposal proceeds and the carrying amount of the asset and should be recognized as income or expense in the income statement.

Disclosure

The financial statements should disclose:

a) The measurement base used for determining the gross carrying amount;
b) The depreciation methods used;
c) The useful life or the depreciation rates;
d) The gross carrying amount and the accumulated depreciation at the beginning and the end of the period;
e) A reconciliation of the carrying amount at the beginning and end of the period, showing:
   i) Additions,
   ii) Disposals,
   iii) Increases or decreases resulting from revaluation,
   iv) Reductions or amounts written back,
   v) Depreciation, and
   vi) Other movements.

The financial statements should also disclose:

a) The existence and amounts of restrictions of title and fixed assets pledged as security,
b) The amount of commitments for the acquisition of fixed assets, and
c) The amount of expenditures on account of assets in the course of construction.

When fixed assets are stated at revalued amounts, the following should be disclosed:

a) The basis used to revalue the assets,
b) The effective date of revaluation,
c) Whether an independent assessor was involved,
d) The nature of any indices used to determine replacement cost, and
e) The revaluation surplus, indicating the movement for the period and any restrictions on the distribution of the balance to the shareholders.

Inventory of Fixed Assets

CEM should prepare a list of fixed assets in order to:

a) Keep adequate control of its assets,
b) Establish the amount to be reflected in the balance sheet, and
c) Set the base for calculating the depreciation amount.

Each asset should be identified through a code number that should indicate, as a minimum, the type of asset, the department where it is situated, and its specific number.

An individual card or sheet should be prepared for each fixed asset including:

(a) Code number,
(b) Cost and its components (purchase price, installation costs, transport),
(c) Supplier,
(d) Useful life
(e) Depreciation rate,
(f) Monthly depreciation,
(g) Accumulated depreciation,
(h) Specific details (revaluation, modifications), and
(i) Technical details (in the case of computers and IT equipment).

Periodic physical inventories should be performed in order to certify the accuracy of the figures reflected in the inventory and to check that all recorded fixed assets continue in the company.

Financial Statements

Purpose

To provide information about the financial position, performance, and cash flows of the organization that is useful to management in making economic decisions.

Components of Financial Statements

A complete set of financial statements includes:

a) A balance sheet,
b) An income statement,
c) A statement of movements in equity,
d) A cash-flow statement, and
e) Notes to the financial statements.

Information Provided

Financial statements provide information about:

a) The assets that are controlled by the organization (which are sources of probable future inflows of cash or other economic benefits);

b) Its liabilities (which are sources of probable future outflows of cash or other economic benefits);

c) Its net income (which represents the change in the economic resources and obligations of the organization from period to period); and

d) Its historical cash flows (as an indicator of potential future cash flows).

Fair Presentation

Financial statements should fairly present the financial position, performance, and cash flows of the organization in a manner that provides information:

a) Relevant to the decision-making needs of users;
b) Reliable in that they:
    i) Faithfully represent the results and financial position of the organization;
    ii) Reflect the economic substance of events and not merely the legal form;
    iii) Are neutral; that is, free from bias;
    iv) Exercise prudence without impairing neutrality; and
    v) Are complete in all material aspects.
c) Comparable with other organizations in the same line of business; and
d) Understandable.

Going Concern

When preparing financial statements, management should make an assessment of CEM's ability to continue as a going concern. When management is aware of material uncertainties related to events or conditions that may affect CEM's ability to continue as a going concern, those uncertainties should be disclosed.

Accrual Basis of Accounting

CEM should prepare its financial statements, except for cash flow information, under the accrual basis of accounting. Assets, liabilities, equity, income, and expenses are recognized when they occur and not as cash or its equivalent is received or paid. The effect of this is that all the accounting implications of a transaction or event are recognized in the financial statements in the period in which the transaction or event takes place.

Materiality and Aggregation

Amounts recognized in the financial statements should be aggregated with amounts of a similar nature or function into line items and need not be presented separately. However, information that is material, either individually or in aggregate, should not be further aggregated with other information. Information is material if its nondisclosure could influence the economic decisions of users taken on the basis of the financial statements. Materiality depends on the size of the item judged in the particular circumstances of its omission.

Offsetting

Assets and liabilities should not be offset except:

a) When CEM has a legally enforceable right to set off the recognized amounts; and

b) Intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously; or

c) When CEM undertakes a number of financial instrument transactions with a single counter-party, entering into a "master netting arrangement" with that counter-party; or

d) When a counter-claim against a third party or related claims against a third party may reduce a potential loss to the organization.

Items of income and expense should not be offset except when gains, losses, and related expenses arising from the same or similar transactions and events are not material, either individually or in aggregate. Such amounts should be aggregated and presented on a net basis when this presentation best reflects the substance of a transaction of group of similar transactions.

Consistency

The presentation and classification of items in the financial statements should be retained from one period to the next unless a significant change in the nature of the operations of the organization or a review of its financial statement presentation demonstrates that more relevant information is provided by presenting items in a different way.

Comparative Information

Comparative information should be disclosed for the previous period for all numerical information in the financial statements. When the presentation or classification of items in the financial statements is amended, comparative amounts should be reclassified to ensure comparability with the current period. When it is impracticable to reclassify comparative amounts, CEM should disclose the reason for not reclassifying and the nature of the changes that would have been made if amounts were reclassified.

Identification

Financial statements should be clearly identified including:

a) The name of the reporting enterprise;
b) Whether the financial statements cover the individual enterprise or a group of enterprises;
c) The reporting date or the period covered by the financial statements, whichever is appropriate;
d) The currency in which the financial statements are measured; and
e) The level of precision used in the presentation of figures (thousands, millions, etc.).

Accounting Policies

Three considerations should govern the selection and application by management of the appropriate accounting policies and the preparation of the financial statements

a) Prudence. Uncertainties inevitably surround many transactions. This should be recognized by exercising prudence in preparing financial statements;
b) Substance over form. Transactions and other events should be accounted and presented in accordance with their substance and financial reality and not merely with their legal form; and
c) Materiality. Financial statements should disclose all items that are material enough to affect evaluations or decisions.

Financial institutions use specific methods for the recognition and measurement of some items in their financial statements and, consequently, accounting policies dealing with the following items should be disclosed:

a) The recognition of the principal types of income and expense that should include, but are not limited to:
   i) Interest and similar income,
   ii) Interest expense and similar charges,
   iii) Dividend income,
   iv) Fee and commission income,
   v) Fee and commission expense,
   vi) Gains less losses arising from dealing securities,
   vii) Gains less losses arising from investment securities,
   viii) Gains less losses arising from dealing in foreign currency,
   ix) Other operating income,
   x) Losses on loans and advances,
   xi) General administrative expenses, and
   xii) Other operating expenses.

b) The valuation of investment and dealing securities;
c) The distinction between those transactions and other events that result in the recognition of assets and liabilities on the balance sheet and those transactions and other events that only give rise to contingencies and commitments;

The nature and amount of commitments to extend credit that are irrevocable because they cannot be withdrawn at the discretion of the financial institution without the risk of incurring significant penalty or expense; and

The nature and amount of contingencies and commitments arising from off balance sheet items, including those relating to:

a) General guarantees of indebtedness and bank acceptances;
b) Interest and foreign exchange rates related items; and
c) Note issuance facilities and revolving underwriting facilities.

The basis for the determination of losses on loans and advances and for writing off uncollectable loans:

i) The accounting policy that describes the basis on which uncollectable loans and advances are recognized as an expense and written off;

ii) Details of the provision for losses on loans and advances during the period. It should disclose separately the amount recognized as an expense in the period for losses on uncorrectable loans and advances, the amount charged in the period for loans and advances written off and the amount credited in the period for loans and advances previously written off that have been recovered;

iii) The aggregate amount of the provision for losses on loans and advances at the balance sheet date; and

iv) The aggregate amount included in the balance sheet for loans and advance on which interest is not being accrued and the basis used to determine the carrying amount of such loans and advances.

The basis for the determination of charges for general banking risks and the accounting treatment of such charges.

The balance sheet of the financial institutions should include, but are not limited to:

Assets

a) Cash and balances with the Central Bank;

b) Treasury bills and other bills eligible for rediscounting with the Central Bank;

c) Government and other securities held for dealing purposes;

d) Placements with and loans and advances to other banks;

e) Other money market placements;

f) Loans and advances to customers;

g) Investment securities.

Liabilities

a) Deposits from other banks;

b) Other money market deposits;

c) Amounts owed to other depositors;

d) Certificates of deposit;

e) Promissory notes and other liabilities evidenced by paper; and

f) Other borrowed funds.

Maturities of Assets and Liabilities

CEM should disclose an analysis of assets and liabilities into relevant maturity groups based on the remaining period at the balance sheet date to the contractual maturity date.

The matching and controlled mismatching of the maturities and interest rates of assets and liabilities is fundamental to the management of a financial institution. The maturity groupings applied to individual assets and liabilities differ between financial institutions. The most common periods are:

(a) Up to 1 month;

(b) From 1 month to 3 months;

(c) From 3 months to 1 year;

(d) From 1 year to 3 years; and

(e) From 5 years and longer

In any case it is essential that the maturity periods adopted are the same for assets and liabilities. This makes clear the extent to which the maturities are matched and the consequent exposure of the bank to risks of liquidity and interest.

Procurement

Purpose

To establish the policy of the organization relating to the purchase of goods, works and services utilized by the company, in accordance with generally accepted guidelines.

General considerations

The procurement rules of the organization should take into consideration:

(a) The need for economy and efficiency;
(b) CEM's interest in giving all bidders an opportunity to compete; and
(c) CEM's interest in encouraging the development of local contractors.

CEM should ensure that the goods, works, or services to be procured:

(a) Are of satisfactory quality,
(b) Will be delivery or completed in time, and
(c) Are priced reasonably.

CEM should not deny prequalification to any firm for reasons unrelated to its capacity to supply the goods, works, or services requested.

The procurement or assignment of works and services shall be carried out through local or international public tender, limited tender, private negotiation, or direct order when necessary.

Standard Bidding

Bidding has the purpose of procuring a number of eligible prospects, capable of providing quality goods or services, granting to all of them an equal opportunity to bid.

The bidding documents should clearly state the type of contract to be entered into and contain the provisions appropriate therefor. Generally, contracts will provide payments on the basis of a lump sum, unit prices, cost plus fees, or combinations thereof.

Prequalification will be utilized for large or complex works or services. It should be based entirely upon the capability of prospective bidders to perform the particular contract satisfactorily, taking into account, among other things:

(a) Experience and past performance on similar contracts,
(b) Capabilities with respect to personnel, and
(c) Financial position.

Bidders should be required to submit bids valid for a particular period to enable CEM to complete the comparison and evaluation of bids and obtain the necessary approvals.

The contract documents should clearly define the scope of work to be performed and the goods or services to be supplied. In addition to the general conditions of the contract, any special conditions appropriate to the nature of the project should be included.

The contract should also specify the payment methods and term. Any advance payment, made upon signature of a contract, for mobilization and similar expenses should be related to the estimated amount of the contract.

The information relating to bids should not be disclosed to bidders or others persons not officially concerned with the process, in order to maintain the maximum confidentiality.

CEM should ascertain that the bids:

(a) Meet the eligibility requirements specified by the organization,
(b) Are substantially responsive to the bidding documents,
(c) Computations are free of error,
(d) Have been properly signed, and
(e) Are otherwise generally in order.

Methods of Procurement other than Bidding

There are circumstances where competitive bidding would not be the most economic and efficient method of procurement. The more common procurement methods considered in these situations are:

(a) Limited international bidding. It is essentially international competitive bidding by direct invitation and may be an appropriate method of procurement in cases where:

  i) The amounts are small,
  ii) There are only a limited number of suppliers of the services needed, or
  iii) Exceptional reasons justify departure from the organisation's policies

(b) Local competitive bidding. The most efficient and economic way of procuring goods or services that, by their nature or scope, are unlikely to attract foreign competition. This approach may be the preferred method of procurement where foreign bidders are not expected to be interested because:

  i) The contract values are small,
  ii) Works are scattered geographically or spread over time,
  iii) Works or services are labor intensive, and
  iv) The goods or services are available locally at better prices.

(c) International and local shopping. A procurement method based on comparing price quotations obtained from at least three suppliers to ensure competitive prices. It requires no formal bidding documents and is an appropriate method for procuring standard commodities and goods.

(d) Direct contracting. Direct contracting without competition may be an appropriate method when:

i) An existing contract should be extended,
ii) Regards additional purchases from supplier of existing equipment,
iii) Are proprietary goods obtainable only from one source; and
iv) In exceptional cases, early deliver will avoid cost delays.

Purchasing Approval Authority

All procurement orders and purchases of any type should be previously approved by the authorized officers, according to the levels established in the financial regulations.

Costing

Purpose

To analyze the cost structure, in order to develop methods for cost recovery and allocation to profit centers.

Cost Ingredients

The main categories of costs are:

(a) Funding,
(b) Business support, and
(c) Overhead and structure.

Direct and Indirect Costs

CEM's costs should be applied:

(a) Directly to the profit center
  i) Funding,
  ii) Business support, and
  iii) Part of overheads (direct salaries, rent, etc.)
(b) Indirectly, through indexes or percentages.

The full cost should be allocated to the profit centers, in order to get a better idea of the results of the whole operation.

Cost Recovery

In a first stage, the organization does not project the full recovery of the costs through the spread. The goal is covering the cost of the funds, plus, after a period of time and in a gradual way, the services directly related to the beneficiary.

Funding

The cost of funding for each profit center should include:

(a) Interest on loans from donors;

Business support

Includes business support services of two types:

a) Support to the final beneficiary (starting a business, business plan); and
b) Support to intermediaries (loan officers training).

Overhead

Includes all expenses that could be identified as pertaining to a specific profit center such as:

(a) Salaries, benefits, training, and other employee costs;
(b) Rent of premises;
(c) Utilities (light, water);
(d) Travel expenses;
(e) Telecommunications (telephone, fax);
(f) Office supplies;
(g) Depreciation; and
(h) Loan loss provision.

Indirect Expenses (Fixed Costs)

The further allocation of fixed costs should help management to get a better picture of CEM's actual performance. Obviously, the use of certain criteria to allocate the indirect expenses is a matter of opting between different alternatives. However, financial institutions applying full costing have developed a number of generally accepted guidelines that provide the possibility of comparison.

Funding

- *Commitments and other fees*: should be allocated according to the **volume** of resources employed by each profit center. Helps to appraise the real cost of the loans.

- *Interest on idle money from donors*: interest on amounts received from donors but not placed yet to financial institutions less the revenue received from their placement in some yielding instrument, should be allocated according to **volume**. Reflects the negative effect of timing gaps between loan withdrawal and loan to beneficiaries.

Business Support

- *Developmental programs:* should be allocated according to the **number** of loans to final beneficiaries is an indicator of the unit cost of increasing business.

Overhead

- *Overhead*: should be distributed according to the **number** of loans to final beneficiaries. The items included in this group, are more sensitive (from the point of view of the work involved) to number of loans than to volume.

Income

The income reflected in the profit centres, consists of:

(a) Interest on loans to financial institutions; and
(b) Fees for business support services.

Income coming from any other source (interest on deposits, interest on investments) should be allocated according to the **volume** of the loans outstanding in each profit centre.

Analysis of Variances

Using the budget figures as a base, an analysis of the differences with the actual results should be produced monthly, and the variances investigated in order to permit management to adopt the pertinent measures.

APPENDIX L

CEM Comments