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Consultancy Report

Treasury Activities
The Cooperative Bank, Limited
Kampala, Uganda

Uganda
Cooperative Agriculture and Agribusiness Support Project
Project Code: 110-15-710

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ACRONYMS, ABBREVIATIONS, AND CURRENCY EQUIVALENTS

List of Acronyms and Abbreviations

ACDI	Agricultural Cooperative Development International.
BOU	Bank of Uganda.
CAAS	Cooperative Agriculture and Agribusiness Support.
CRR	Cash Reserve Requirement (BOU monetary policy reserve measure).
EMC	Executive Management Committee (of the Cooperative Bank, Limited).
IBR	International Business Relations (department of the Cooperative Bank, Limited).
LRR	Liquidity Ratio Requirement (BOU regulatory liquidity measure).
MOC	Management Operations Committee (of the Cooperative Bank, Limited).
SIDA	Swedish International Development Agency.
USAID	United States Agency for International Development.
USD	United States Dollars.
USh.	Ugandan Shillings.

Currency Equivalents

Spot rate as of September 30, 1994

USh. 917 = USD 1.00
USh. 1.00 = USD 0.0011

I. Executive Summary

1. The Cooperative Bank Limited (the Bank) is the current focus of the Cooperative Agriculture and Agribusiness Support (CAAS) Project[1] of the United States Agency for International Development (USAID). A Treasury Consultant was engaged[2] to review the relevant treasury and cash management operations of the Bank and to recommend in detail the mission, staffing, and operations of a proposed Treasury Department. The consultant visited Uganda during October 1994, met with the project team, Bank management, and others[3], and made recommendations. This is the report of that engagement.

2. The Bank's treasury operations are weak, with management focus mainly during periods of threatened illiquidity. Information systems are manual, designed primarily for regulatory reporting and provide little management data on a timely basis. Funds availability projections are made on an ad hoc basis and are based on sparse real data. As a result of recent deposit inflows, the Bank has maintained high liquidity, achieving this state, however, with excessive balances at the central bank, which do not earn interest. Branch currency holdings are high in relation to requirements and management of these balances is also weak.

3. The interbank funds market is undeveloped and opportunities for prudent investment of surplus funds are few. The central bank is committed to developing a secondary market in government securities and intends to promote the development of an interbank funds market. The regulatory and support structures required for effective operation of these markets could be in place by the second quarter of 1995. The proposed recapitalization of the Bank through conversion of the PL 480 edible oils monetization program administered funds liability is a critical prerequisite to the Bank's participation in these markets.

4. The Treasury Department should be organized as intended. A mission statement, a work plan, and staff job descriptions were developed and provided to Bank management during the course of the engagement. The initial and primary role of the Treasury Department will be to manage the liquidity of the Bank, investing surplus funds or borrowing required funds in response to its analysis of the Bank's daily position and short-term cash projections. The department will also be responsible for regulatory reserve and liquidity reporting, branch cash control, investment accounting, and management analysis support. Some key treasury functions should commence immediately, and not be deferred until the organization of the department and appointment of staff.

5. As the development of the government securities and interbank funds markets are critical to the achievement of the treasury mission, and to the advancement of the goals of

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[1]administered by Agricultural Cooperative Development International (ACDI).
[2]See Appendix A for the terms of reference of this engagement.
[3]See Appendix B for a list of persons and organizations contacted.

the Bank, the treasury department head must be active in relationships with other banks, the bankers' association, and the central bank in order to ensure that the institutional and regulatory infrastructure to be put in place will be favorable to the Bank.

6. The progress of the Treasury Department and the development of its staff must be closely monitored. If performance is acceptable, the treasury mission should be expanded to encompass a greater role as the Bank's primary asset and liability management resource. However, the department's assumption of greater responsibilities should be deferred until after the liquidity management function is firmly in place and the department's operations are credible to its important constituencies: executive Bank management, the central bank, and the other participants in the interbank and government securities markets.

7. Development of the department's role will be hampered by deficiencies in the Bank's information systems. The department's head must play an active role in specifying requirements for future information systems projects. The development of more advanced cash flow forecasts and interest rate risk analysis tools is dependent upon the timely availability of detailed deposit and loan data, as from automated systems.

8. The creation of a Treasury Department is an important step in the Bank's maturation as an independent and viable financial institution. With appropriate staffing, and with the support of both Bank management and the CAAS Project, it should develop as a key component of the Bank's business strategy.

II. Background

A. The Cooperative Bank, Limited

9. The Bank was established in 1964 as a cooperative society under the Cooperative Societies Act, 1963. The shareholders of the Bank are other organizations of the cooperative movement: cooperatives, cooperative unions, and cooperative apex organizations. The Bank is subject to the Cooperative Societies Statute, 1991 and to the Cooperative Societies Regulations, 1993.

10. The Bank also is subject to the provisions of the Financial Institutions Statute, 1993 and is regulated and supervised by the Bank of Uganda (BOU), the central bank. This legislation, inter alia, requires that the Bank, and other financial institutions, meet certain capital adequacy standards[4] after a three-year grace period ending in 1996.

11. The Bank is governed by a ten-person Board of Directors, seven of whom are elected by qualified shareholders at an annual general meeting. The remainder of the Board includes the Bank's Managing Director (the chief executive officer of the Bank), an appointee of the Minister responsible for finance, and the Registrar of Cooperative Societies (or his delegate). The Bank's operations are overseen by the Managing Director and carried out by three General Managers (Secretariat, Operations, and Marketing) reporting to him[5]. An organizational chart is presented at Appendix C.

12. From its origin in serving the banking needs of the cooperative movement, the Bank has expanded its role to that of a full-service commercial bank, in competition with others serving commercial interests and the general public with banking services. The Bank also is an intermediary for the administration of certain government programs, and receives funds from external agencies for on-lending to program beneficiaries.

13. The Bank maintains its Head Office and International Business Relations (IBR) unit in Kampala and operates a network of 23 branches[6] throughout the country. Activity in the capital dominates the business of the Bank, with Head Office and Kampala City branch balances representing about 41% of advances and 25% of deposits at June 30, 1994.

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[4]Core capital of four percent of risk-adjusted assets and total capital of eight percent of risk-adjusted assets, as interpreted by the BOU. Although the BOU monitors bank capital adequacy through quarterly returns, there are no phase-in capital requirements prior to the 1996 full compliance date.

[5]The Managing Director and the three general managers constitute the Executive Management Committee (EMC), the policy-making body of the Bank. The Management Operations Committee (MOC), composed of EMC members, the Deputy General Manager for Operations, the Deputy General Manager for Marketing, and the Chief Accountant, considers operational strategy and procedures.

[6]One branch, Jinja, also maintains a subordinate agency in Iganga.

14. The Bank is insolvent, largely as a result of past poor lending practices and inadequate operational and expense control. The recent unaudited financial position of the Bank (under regulatory accounting principles) is summarized below:

The Cooperative Bank, Limited	June 30, 1994
	USh. millions
Total assets	38,100
Total advances	20,800
Total deposits	18,900
Administered funds	12,400
Year-to-date earnings	600
Regulatory Capital	
Core capital	-14,000
Total capital	-5,700

15. The Bank forecasts an operating profit for 1994 and is formulating a business plan that projects a small net profit in 1995. The Bank cannot achieve capital adequacy by 1996 through earnings alone and is precluded by the size of its non-performing loan portfolio from pursuing an alternate strategy of shrinking assets in order to meet mandatory capital ratios. An external source of core (equity) capital must be identified.

B. External Assistance

16. The Bank has been the recipient of direct external assistance from two donor agencies: the Swedish International Development Agency (SIDA) and the United States Agency for International Development (USAID).

17. These and other donor agencies, including the African Development Bank, use the Bank as an intermediary for program disbursements. Such program fundings are recorded as "Administered Funds" liabilities and the disbursements as "Funded Loans" assets. The Bank benefits from these activities through retention of fees and some interest income.

18. Assistance from SIDA was primarily technical assistance in the development of internal operations and systems. Included was the installation of an automated general ledger system that is in operation at the Bank's head office.

19. Assistance from USAID has been in connection with that agency's assistance to the agricultural cooperative sector under the Cooperative Agriculture and Agribusiness Support (CAAS) Project, administered by ACDI. The Bank, organized under the Cooperative Societies Act, and having only cooperative and associated organizations as shareholders, qualifies as a beneficiary for this assistance.

20. Funding and net proceeds resulting from the USAID PL 480 edible oils monetization program, which uses the Bank as its primary financial intermediary, have been accounted for by the Bank as administered funds. The net proceeds arising from

operation of this program are earmarked for the benefit of the cooperative movement, and it is intended that this administered funds liability will be converted into equity capital of the Bank. At September 30, 1994, the potential amount eligible for such conversion was approximately USh. 10 billion[7].

21. Direct technical assistance for institutional strengthening has been provided to the Bank under the CAAS Project. The assistance of foreign technical experts, under both long-term and short-term assignments, has been or will be provided in marketing, domestic operations, international operations, and treasury.

C. Engagement of Treasury Consultant

22. A Treasury Consultant was engaged by ACDI under the CAAS Project. The full terms of reference for this engagement are presented at Appendix A. Highlights are:

a. describe the functions of the proposed Treasury Department, propose staffing levels, and prepare job descriptions for the proposed staff;
b. set goals and create a work plan for the department's first year of operation; and
c. provide the Bank with liquidity and cash management methods and guidelines.

23. This report is the result of the consultant's field work in Uganda during the period October 4, 1994 through October 30, 1994. A list of persons with whom the consultant had substantive contact regarding the engagement is presented at Appendix B.

D. Overview of the Consultant's Engagement

24. Prior to the engagement of the Treasury Consultant, Bank management had recognized the need to create a dedicated treasury unit within the organization, but had not formally defined the mission, staffing, and operations of the unit. The consultant identified the treasury-related activities now being carried out within the Bank, evaluated the strengths and weaknesses of existing activities, and determined which functions appropriately could be included within the mission of the new unit. This evaluation was followed by recommendations for the mission, constitution, and work program of the proposed unit. Further recommendations for enhancement of treasury operations included proposals for policies, procedures, and future activities.

E. Other Background Material

25. The Bank, ACDI, and others provided background material in the way of previous reports and studies, copies of current legislation and regulations, and other documents affecting the Bank and relevant to this engagement. A list of significant background material is presented at Appendix D.

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[7]The conversion of this liability into equity is a non-cash accounting transaction. The core capital of the Bank will increase but its liquid funds position will be unaffected.

III. Findings

A. Responsibility for Treasury Activities

26. Under the Bye-Laws of the Bank (1993), the Board of Directors appoints the Treasurer of the Bank from among its own members. However, this appointment is largely ceremonial and the Chief Accountant, in addition to financial control and accounting duties, is responsible for most treasury-related functions, including regulatory reporting and compliance, maintenance of central bank balances, investments, authorization of branch cash levels and movements, management and budget analysis, and financial forecasting[8].

B. Regulatory Reporting: Weekly Statement of Liquidity

27. Under BOU regulations, all commercial banks must file weekly statements of liquidity. The weekly statement is the primary reserve and liquidity compliance monitoring tool of the central bank. Information reported on the return includes the balances of deposits and of assets eligible for reserve and regulatory liquidity requirements. Total advances are also reported. The penalty for non-compliance with this reporting requirement is a potential fine of one percent of deposits per day that a return is delayed beyond its due date.

28. The cut-off date for reporting is the close of business as of each Friday. Data from all branches in District One[9] are consolidated in a return due by Thursday of the following week. Data from all branches in District Two[10] are consolidated in a return due by the second Thursday following the cut-off date. A return consolidating the two districts into a total bank position is not required.

29. Returns are prepared by the Accounts section from branch reports that approximate the format of the final return. Branch report formats are inconsistent and include details, such as reserve deficiency calculations, that are not relevant at the branch level.

30. Branch reports trickle into Head Office during the period prior to the report due date. Accounts staff query delinquent branches by telephone for balances as submission deadlines approach. Supervisory staff indicated that the most likely reason for delay is the inability of some branches to post and balance their ledgers within the allotted timeframe (over one week for District Two branches).

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[8]Matters relating to foreign exchange and the management of offshore correspondent bank accounts are the responsibility of IBR.

[9]District One includes Head Office, IBR, and the following six branches: City, Jinja, Kabale, Mbarara, Wandegeya, and Wobulenzi.

[10]District Two includes all branches (17) not reported in the District One return.

31. Branch-wise balances are input to computer spreadsheets for consolidation by district. Four separate spreadsheets are used to prepare data for each weekly set of two returns. Identical data is input twice to different spreadsheets. Final data is manually transferred to a draft return and later to a typed final return. Staff perform callbacks of data to verify accuracy after each transfer.

32. Final returns are signed by the Assistant Chief Accountant-Accounts and dispatched to the central bank. Copies of returns are distributed to the Managing Director, Chief Accountant, and Chief Internal Auditor.

33. Although the preparation of the weekly liquidity reports involves the most current information in the Bank regarding the status of branch deposit and cash balances, neither a consolidated return nor a summary report for management information is created.

34. Review of the reports and of the reporting unit detail showed that the Bank's balances at offshore correspondent banks (nostro accounts) were being improperly reported. The weekly IBR report to the Accounts section shows a "Working Capital" total, expressed in USD. This amount, translated into local currency, is reported on the District One return as the Bank's nostro account position. During the third quarter 1994, the Bank reported average nostro account balances of less than USD 60,000 equivalent. Actual balances held in nostro accounts averaged about USD 900,000 equivalent.

C. Regulatory Reserve and Liquidity Compliance

35. In its liquid funds management, the Bank is required to meet two regulatory standards:

a. Cash Reserve Requirement (CRR). For monetary policy purposes, the BOU requires that all commercial banks maintain non-earning cash balances either in a central bank account or in vault currency holdings[11]. The current cash reserve requirement is the sum of 8% of demand liabilities and 7% of savings and time deposits. Compliance is reported in the weekly statement of liquidity.

b. Liquidity Ratio Requirement (LRR). For bank safety and soundness purposes, the BOU requires that all commercial banks maintain eligible liquid assets at a level equal to the sum of 20% of demand liabilities and 15% of savings and time deposits. Significant eligible liquid assets include currency holdings (eligible at 100% of balances), central bank balances, demand balances at other banks, and Uganda government treasury bills[12]. Compliance is reported in the weekly statement of liquidity.

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[11]Only 30% of currency holdings are eligible for inclusion in the CRR calculation.

[12]Other eligible assets include government stocks maturing within 5 years, investments in the Development Finance Fund, and commercial bills and notes eligible for discount at the central bank. The Bank's holdings of these assets are either nil or immaterial.

36. The Bank's weekly statements of liquidity for the third quarter 1994 (July 1 through September 30) were reviewed and consolidated for analysis of compliance with both the CRR and the LRR. Charts demonstrating reported compliance status by week are presented at Appendix E. Detail data is presented at Appendix F.

37. The Bank reported compliance with both the CRR and the LRR in each weekly reporting period during the third quarter 1994. Average CRR-eligible balances were 319% of requirements (with a range from 247% to 401% of requirements). Average LRR-eligible balances were 174% of requirements (with a range from 151% to 201% of requirements).

38. Compliance, with such high levels of liquidity, is costly. If BOU balances of 110% of the CRR[13] were to have been maintained, and no changes made in the Bank's currency management, a mean USh. 2,600 million would have been available for investment during the period. If this amount were to have been invested in 91-day government treasury bills, interest income of over USh. 50 million would have been recognized during the quarter, while LRR compliance would have remained unaffected, as treasury bills are eligible liquid assets for the LRR calculation.

39. The effect of the misstatement of nostro account balances in the weekly statement of liquidity (para. 34) is that the reported LRR surplus has been understated by a mean USh. 770 million during the period. The misstatement has no effect on CRR compliance.

D. Central Bank Balances

40. The Bank maintains three accounts at the BOU: reserve, clearing, and up-country clearing accounts. For CRR and LRR compliance purposes, the balances in the three accounts are aggregated to one reported sum. In September 1994 the BOU proposed certain changes to clearing house rules that would result in the consolidation of the three accounts into a single BOU account.

41. Daily balances[14] of the three BOU accounts from July 1 through September 30, 1994 were analyzed in order to determine the historical volatility of balances and the potential impact of the volatility on the management of the Bank's liquidity. Charts of BOU balances are shown at Appendix G and the detail data is presented at Appendix H.

42. During the period, the Bank maintained its reserve account at a constant balance of USh. 935 million. Although the up-country clearing account showed a consistently increasing balance trend (from USh. 397 million at July 1, to USh. 669 million at September 30), surplus funds were not transferred to the main clearing account. The

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[13]A target BOU balance of 110% of the CRR is an example provided by the BOU in its policy statement: Prudential Aspects of Bank Liquidity, 1993.

[14]BOU statement data was used. Balances reported in the Bank's general ledger trail actual balances because BOU statements are used as source documents for ledger postings.

balance of the main clearing account was more volatile. The mean balance of the main clearing account was USh. 2,911 million and balances ranged from USh. 1,248 million to USh. 4,452 million during the period.

E. Branch Currency Management

43. Bank management indicated a perception that branch currency holdings were excessive in relation to requirements and constituted a drag on earnings. Weekly statement of liquidity data for the third quarter 1994 was analyzed to determine if patterns of non-productive cash deployment were evident. An overview of the Bank's total deposits and total currency on hand is charted at Appendix I and detail data is shown at Appendix J. Charts analyzing branch currency holdings are presented at Appendix K.

44. Currency holdings were compared to deposits both at total Bank and at branch levels. On a total Bank basis the currency/deposit ratio was reasonable (for a commercial bank in a cash economy), with a mean of 8.9% and ranging from 6.8% to 10.8%. However, individual branch statistics differed strongly from those of the total Bank.

45. The mean[15] currency/deposit ratio for individual branches ranged from 3.6% (Gulu) to 37.0% (Masindi). Currency/deposit ratios of less than 1% had been experienced in four branches: Gulu, Soroti, Wobulenzi, and Ntungamo. Currency/deposit ratios exceeding 25% had been experienced in six branches: Arua, Masaka, Ntungamo, Kasese, Fort Portal, and Masindi. Masindi, at one time, held currency equal to over 72% of deposits while, at another time, permitted currency on hand to drop to 5.3% of deposits.

46. One justification advanced for high branch holdings was the difficulty (in both time and costs) involved in transporting currency from remote branches to BOU currency distribution centers. Mean currency/deposit ratios were plotted over the road distance between each branch and its related currency distribution center. No significant relationship was noted. Anecdotes of branch managers hoarding cash against the possibility of runs on the branch were frequent. No explanations were advanced for the incidences of extremely low currency holdings.

F. Cash Handling Insurance

47. The Bank insures its currency in transit, tills, and vaults. In June 1994, the Bank increased its cash insurance coverage. Cash insurance coverage limits and branch currency balances are charted at Appendix L. Details of balances, insurance coverage, and transits are presented at Appendix M.

[15]Mean ratios were compared to median ratios in order to determine if means were exaggerated by the presence of outlier data. Analysis indicates that means are reasonably representative of medians, even in branches exhibiting large ranges about their means.

48. Overnight cash vault insurance coverage was compared to the means and ranges of branch currency balances reported[16] in the weekly statements of liquidity during the third quarter 1994. In all cases, currency held overnight had exceeded insurance coverage at least once. In only one case was insurance coverage greater than the mean currency balance reported by the branch.

49. Transit cash insurance coverage was compared to branch currency purchases at BOU currency distribution centers outside Kampala. During the third quarter 1994, seven branches purchased currency in 31 separate transactions at the centers. In all cases, the amount of currency purchased and transported exceeded the transit insurance coverage in place. In 29 cases, the amount of currency purchased and transported in single events exceeded the branch's cumulative annual cash transport coverage. Data sufficient to review currency shipments between branches, from branches to currency centers, and between the head and nearby offices and the BOU main currency vault was not available.

G. Bank Investments

50. The Bank does not have an investment portfolio[17] of significance. The Bank has bid at some government treasury bill auctions, but has been unsuccessful in awards and no longer bids for such securities. The Bank does not buy securities in a secondary market.

H. Government Securities Markets

51. The only active securities market in Uganda relevant to the operations of the Bank is the primary market for government treasury bills[18]. Since 1992, treasury bills of 91-day maturity have been auctioned weekly by the BOU. Bills of 182-day and 273-day maturities are auctioned monthly. Usually, USh. 2 billion of bills are offered at each auction and the BOU expects to maintain the total float (all maturities) around USh. 50-70 billion. Non-competitive bids are only accepted in tenders of USh. 10 million or less and awards to non-competitive bidders are made at the weighted average price of successful competitive bids.

52. A secondary market in treasury bills does not exist. Although the BOU operates a small rediscount window facility for retail investors, it will not rediscount bills as an open market operation on its own account for the benefit of institutional investors. The BOU

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[16]as of the close of business each Friday.

[17]At June 30, 1994 investments in the Development Finance Fund were USh. 54 million. Other minor items were USh. 2 million.

[18]The government, outside the BOU, has issued some promissory notes, due within the current government fiscal year, in satisfaction of arrears owed to suppliers. The notes are being discounted by some banks and there is light trading in an informal secondary market. However, the BOU has stated that it does not intend to support the development of markets in these instruments.

encourages the development of an active secondary market in these instruments among financial institutions and has taken a number of steps to promote such activity.

53. Targeted for January, 1995 are changes in ownership form and certificate type. At present, treasury bills are issued as registered instruments, in denominations unique to each certificate. Transfers of ownership require re-registration and replacement of certificates by the BOU. In 1995, new issue certificates will be in bearer form and in round lot denominations.

54. Under BOU consideration for implementation in 1995 is the establishment of a primary dealer network. Rules for a market so structured have not yet been determined, but the BOU has noted that one significant objective is to broaden the trading base beyond commercial banks.

55. The BOU does not at present offer custodial services for treasury bill investors. However, such services may be offered later in order to facilitate trading.

56. Commercial banks in deficit CRR positions may pledge treasury bills as collateral against BOU advances if the bills have an unexpired term of 50% or less of their original maturity. Treasury bills are liquidity-eligible assets for purposes of LRR compliance.

I. <u>Interbank Markets</u>

57. Through proposed changes in the clearing house rules, and stricter policies on advances, the BOU is encouraging the development of an interbank funds market[19]. A small market has existed on an informal basis among some banks, but overnight lending of funds is not widespread. Known interbank transactions have not been collateralized. Repurchase agreements are executed only with the BOU as a window facility.

58. In order to facilitate clearing activities outside Kampala, the Bank has engaged in informal interbank lending in small amounts. The practice among involved banks has been to liquidate these balances prior to the Friday weekly liquidity report cutoff date.

59. Responsible managers in other commercial banks have indicated that they are unwilling to lend overnight or short-term funds on an unsecured basis to the Bank because its capital position is unacceptable. Some managers indicated, however, that they might be willing to lend to the Bank under repurchase agreements collateralized by government treasury bills and if the Bank's capital position were to improve.

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[19]Under the proposed rules, banks in debit reserve positions after consolidated clearings will be required to seek funds in the interbank market prior to applying for BOU advances. Access to immediate BOU credit is not assured and mechanisms to stabilize the banking system upon the failure of one or more banks to fulfill clearing obligations are under consideration.

J. BOU Advances

60. In May 1994, the BOU issued a circular revising its policy and procedures for advances to commercial banks. The BOU offers four arrangements for advances:

a. Basic borrowing facility. This facility provides temporary credit for CRR deficiencies. Borrowings are limited to five percent of the CRR and access is limited to no more than six of any consecutive thirteen reserve accounting periods.

b. Supplemental borrowing facility. This facility provides credit for longer periods (up to three months) and in amounts greater than that available under the basic borrowing facility. Application for credit under this facility places the borrowing bank under BOU surveillance and the borrower is expected to undertake an orderly adjustment of assets and liabilities while advances are outstanding.

c. Seasonal line of credit. The facility provides temporary (one to six months) credit to banks which can demonstrate predictable seasonal outflows of funds[20] in excess of four percent of deposits.

d. Extended credit facility. This facility provides credit for periods of greater than three months in order to support institutional reform, mergers of weak institutions, and bank closings.

61. Secured advances under the basic borrowing facility and seasonal lines of credit are charged interest at the BOU's base rate, currently 16.5%. Unsecured advances, and supplemental advances outstanding for over three months, are surcharged.

62. Eligible collateral for BOU advances include treasury bills and other government obligations with less than one year remaining maturity. The BOU may determine the eligibility of other instruments at its discretion.

K. International Banking Activities

63. The IBR manages foreign currency on hand, foreign currency deposits, and relationships with offshore correspondent banks (nostro accounts). IBR reports its CRR and LRR related balances to the Accounts section weekly for incorporation into the Bank's weekly statement of liquidity (para. 34).

64. Nostro accounts (demand accounts) and call money advances are eligible liquid instruments for LRR calculation. At present, IBR has no interest-bearing accounts abroad but is negotiating with correspondents for arrangements that will sweep all or part of its

[20]Documented seasonal outflows either from loan expansion to regular customers or from deposit withdrawals are acceptable criteria.

overnight nostro account balances into interest-bearing investments at call. Time deposits at banks abroad and foreign government securities are not LRR-eligible assets.

L. Liquid Funds Projections

65. Ad hoc liquid asset projections (based primarily upon current BOU clearing account balances) are prepared by the Chief Accountant in response to queries of management regarding the availability of funds for lending. No comprehensive liquidity forecasting procedures are in place.

M. Liquidity Policy

66. The Bank does not have a liquidity policy. The BOU has promulgated a regulation[21] that requires each bank to have in place a policy, approved by its board of directors, on the management of its liquid funds.

[21]Prudential Requirements and Aspects of Bank Liquidity, 1993.

IV. Recommendations

A. General

67. Recommendations for enhancement of the Bank's treasury operations must consider the financial condition of the Bank, existing and proposed regulations, and the current state of the interbank and securities markets. Effective treasury management will require new efforts and concentrated focus by Bank management. The mobilization of excess liquidity will result in the Bank accepting new risks, as its previous safety margin of massive central bank balances will be reduced. In order to mitigate these risks, monitoring and decision analysis mechanisms that require the active involvement of Bank management are proposed.

B. Approve Liquidity Policy

68. BOU regulations, effective December 1993, require that the board of directors of each commercial bank put into place a liquidity policy that will guide the bank's management of its liquid funds (para. 66). A board-level policy should clearly express the position of the board and its expectations of management, both under normal operating conditions and in times of crisis. A policy should also define the measures by which the board will periodically review management's performance against policy goals. A proposed liquidity policy is presented at Appendix N.

C. Establish and Staff the Treasury Department

69. The Bank, as it has intended (para. 24), should establish the Treasury Department as a unit reporting to the General Manager, Operations. The transfer of certain functions to this unit will permit the Chief Accountant (para. 26) to focus upon further development of financial control and accounting systems, another priority of the Bank. A mission statement for the department is proposed at Appendix O.

70. In its first year, the Treasury Department should concentrate upon control, mobilization, and reporting of the Bank's liquid asset position and upon the development of the Bank's activities in the interbank and securities markets. The department should also streamline the preparation of the weekly statements of liquidity, the underlying data for which will be used as a partial basis for liquidity management information reporting. A proposed departmental work plan through December 1995 is presented at Appendix P. Performance against plan should be monitored closely and the plan revised as required to meet the needs of the Bank.

71. The Treasury Department should be staffed by two individuals appointed from existing Bank staff. Proposed job descriptions for the department's head and for one assistant are presented at Appendix Q and Appendix R, respectively. The appointment of staff to these positions is an important decision. The persons selected must be highly motivated, able to work without close direction, have strong quantitative skills, and

possess an excellent understanding of the flow of funds in financial institutions. As treasury transactions are frequent and of very large value, staff must be of unquestioned integrity.

72. The Treasury Department should not be the primary locus of treasury-related decisions. The EMC, weekly, should review recommendations and analyses of the Treasury Department and should direct the department's head as to the actions to be taken during the succeeding week.

D. Improve Weekly Statement of Liquidity Reporting

73. The weekly statement of liquidity represents the most timely information available regarding deposit and currency balances of branches. The proposed Treasury Department should assume the responsibility for preparing this report and for enhancing the underlying data collection process. As data used for this report will be the basis for liquidity management reporting and, thus, the consequent management decisions, it is important that existing weaknesses in this activity be resolved quickly, and that all users of this data be aware of any remaining limitations.

74. Branch reporting of detail data to Head Office is inconsistent in format and content (para. 29). A simplified standard format for branch reporting to Head Office should be put into place. Branches need report only their actual balances.

75. Delays in branch reporting result in untimely receipt of data and may be evidential of breakdowns in branch controls (para. 30). As the data will now be the basis for crucial management decisions, and the reporting format simplified, regulatory reporting deadlines should no longer be used as branch reporting deadlines. All branches should be required to report, by telephone or other rapid means, the required data, at least, by Tuesday of the first week following the Friday cut-off. Management should react immediately with additional supervision of delinquent branches.

76. Preparation of the reports requires multiple spreadsheets, report drafts, and manual operations (para. 31). All input data input should entered into a single spreadsheet, which should also generate final returns for each district and for the consolidated Bank. Other liquidity management schedules may be generated from within the same spreadsheet.

77. A problem in reporting nostro account balances (para. 34) was detected and corrected during the engagement.

E. Improve Branch Currency Management

78. Many branches are holding excessive amounts of currency (para. 45). Currency holdings in excess of actual requirements are expensive to maintain. In addition to being a non-earning asset, currency contributes to the Bank's CRR compliance at only 30% of the actual balances held (para. 35).

79. Some branches have permitted currency on hand to drop to unrealistically low levels (para. 45). The inability of a branch to provide currency on demand to its customers could result in a local loss of confidence in the Bank that quickly could be transmitted to other branches, resulting in a crisis run on the Bank.

80. The EMC should place strict limits (both low and high bounds) on branch currency holdings. Monitoring and enforcement of branch currency balances and limits should be carried out by the Treasury Department and should be based upon the data accumulated in the process of preparing the weekly statement of liquidity. Recommended initial low and high bounds for currency limits are 5% and 13% of average deposits for a recent four-week period. Currency limits should be communicated to branch managers in terms of permitted currency value, rather than percentages as used for treasury and management analysis. Individual branch managers should be permitted to appeal by documenting a justification for different bounds, if a compelling local economic reason for a different set of limits exists. The EMC must demonstrate its commitment to this policy by taking immediate action against managers in violation of currency limits (either high or low).

81. The Treasury Department head should approve all requests for branch purchases or surrenders of currency at BOU currency distribution centers.

82. Customer demands for currency should be examined. The profitability of serving customers with large currency needs (as for payrolls) should be analyzed in light of the Bank's costs of currency transportation and insurance, as well as the physical security threats posed toward the Bank's property and personnel. Customers requiring currency in amounts not normally prudent for branches to handle should be charged, at least, the direct costs of transportation and incremental insurance coverage.

83. The Bank should enter into mutual currency-sharing agreements with other commercial banks with branches near the more remote Bank branches. The ability to purchase cash from other nearby banks to cover immediate currency needs will overcome branch managers' objections to maximum currency levels, while reducing the risk of losing customer confidence in the Bank's ability to meet its demand obligations. Purchasing currency from other commercial banks also may reduce the frequency of draws from BOU currency distribution centers and associated transportation costs.

F. <u>Review Cash Handling Insurance</u>

84. Insurance coverage for currency in transit and in vaults is significantly below actual exposures (para. 48). Realistic coverage should be put in place immediately and modified as new currency holding limits are established and enforced.

G. <u>Establish an Investment Portfolio</u>

85. The Bank does not carry an investment portfolio (para. 50). A properly composed investment portfolio provides an opportunity for deployment of liquid funds that are not needed for lending purposes, can serve as collateral for short-term borrowings during

periods of low liquidity, and generates stable interest income that can reduce the volatility of reported earnings.

86. The Bank should invest a significant portion of its available BOU balance in an LRR-eligible portfolio. Based on third quarter 1994 liquidity analyses, the expected initial level of investment is in the USh. 600 million to USh. 1 billion range, but the actual amount should be based on analyses of future, rather than past, cash flow projections.

87. The Bank's investment portfolio should consist exclusively of Uganda government treasury bills. Treasury bills are eligible assets for LRR compliance and are acceptable collateral for BOU advances. Although an active secondary market does not exist (para. 52), this factor is relatively unimportant as the Bank should intend to hold these securities to their respective maturities, which are short (91, 182, or 273 days at original issue), and to use the securities as collateral for short-term borrowings.

88. The portfolio should be structured so that a reasonable amount matures each month. As the securities mature, the proceeds may be used to meet the Bank's cash needs or reinvested in order to maintain a desired liquidity position.

89. In order to establish and maintain the portfolio, the Bank must become an active bidder at weekly (for 91-day bills) and monthly (for 182- and 273-day bills) auctions[22]. The nature of bill auctions is such that the Bank will not always be awarded bills in the quantities and at the rates it desires, and it could take some months until the portfolio is structured well. With experience in bidding, and with communication with others in the developing secondary market, the Bank's auction performance will improve. As a secondary market develops, gaps in the portfolio's maturity structure may be filled through purchases of securities from other investors.

H. Participate in the Interbank Market

90. Only a small informal interbank funds market now exists (para. 57) and the Bank's inadequate capital position and lack of collateral prevents its participation as a borrower (para. 59). The interbank market will be an important source of funds to the Bank, as it may, for short times, be low on cash as it mobilizes excess liquidity, and as the BOU intends to refrain from its current role as the first source of funds for banks in deficit reserve positions (para. 57). The proposed capital increase (para. 20) and the establishment of a significant investment portfolio (para. 86) should allow the Bank to overcome present obstacles to its participation.

[22]At the October 19, 1994 auction (Auction No. 119), USh. 2.5 billion of 91-day bills, USh. 1.0 billion of 182-day bills, and USh. 1.0 billion of 273-day bills were offered. The annualized average weighted yields on the bills sold were 6.95% for the 91-day bills, 10.88% for the 182-day bills, and 14.83% for the 273-day bills.

91. After recapitalization, and as the Bank is building its investment portfolio, the Bank should actively apply for overnight and short-term credit lines from other commercial banks. Other banks may require substantial data regarding the Bank's financial position and periodic reports from management, which the Bank should be prepared to provide in order to ensure that these lines will available when needed.

92. Given its surplus liquidity, the Bank should plan also to be a lender in this market. The interbank market is a credit market and the Bank should put into place a credit approval process, that includes continuous maintenance of credit files and periodic evaluation of borrowers, for its interbank lending activities. Funds should be lent only to banks within credit limits and with terms that have been previously approved by the EMC.

93. The Bank should not engage in unsecured lending to other banks. The usual vehicles (outside Uganda) for secured interbank lending are securities repurchase agreements. Under a repurchase agreement (or "repo"), a bank requiring funds will sell securities from its portfolio to a bank with excess funds under an agreement to repurchase the securities at a later date and at a higher price. The difference between the prices at which the security is sold and repurchased represents the cost of using the funds during the term of the agreement, i.e., interest[23]. The bank which advances funds is protected because, if the securities seller defaults on its promise to repurchase, the advancing bank has possession and ownership of the securities and may recover its investment through sale or maturity of the security. Normally, the amount advanced under a repurchase agreement will be less than the market value of the security, so that the advancing bank is protected in case of adverse securities price moves.

94. Uganda government treasury bills are excellent instruments for repurchase agreement transactions. The bills, for practical in-country banking purposes, are free of default risk and, for bank capital adequacy purposes, the bills are zero risk-weighted. In 1995, new bills will be issued as bearer instruments (para. 53) in order to facilitate exchanges. As the bills are discount, rather than coupon, instruments, there are no difficulties regarding distribution of interim coupon receipts.

95. Some elements are yet missing from the infrastructure needed for a fully functioning repo market, and the Bank should be active in the resolution of these matters:

a. Custodial Services. The BOU does not yet offer custodial services for securities (para. 55). As funds should be advanced to borrowers only after receipt of the collateral, a competent custodian or escrow is required. In the absence of custodial transfer and receipt services, bills must be physically transported among banks, and

[23]The accounting for repurchase agreements is similar to that for loans. While the agreement is outstanding, the borrowing bank records a short-term liability and the advancing bank records a loan. The difference between sale and repurchase prices is recorded as interest expense and income, respectively for the parties. No gain or loss is recorded and the borrowing bank continues to carry the security as an investment asset.

the BOU must verify authenticity of delivered instruments. The Bank should propose, through the Uganda Bankers Association, that the BOU accept this role.

b. Standard Repurchase Agreements. Banks should use a standard repurchase agreement. The Bank should actively be involved, through the Uganda Bankers Association, in drafting a standard agreement that will be favorable to the future circumstances of the Bank.

c. Accounting. A repurchase transaction is fundamentally a loan. The Bank should be an active proponent of regulatory and tax accounting rules that will treat repurchase transactions as secured lending transactions, rather than as securities sales and purchases.

d. Risk-weighting. The securities underlying repurchase agreements are zero risk-weighted government securities, while advances to other banks are 100% risk-weighted. The Bank should be an active proponent of classifying advances made under repurchase agreements as zero risk-weighted assets.

e. Liquidity Reporting. The instructions for the weekly statement of liquidity offer no clear rule for reporting repurchase agreements from the borrower standpoint. The borrower accounts for the underlying security as an investment and, therefore, as includible among LRR-eligible assets. However, the security is not available for liquidation and, so, should not be LRR-eligible. The Bank should seek clarifying regulation from the BOU.

f. Credit Concentration Limits. In the normal course of repo operations, advances to a single borrower are expected to routinely exceed the regulatory credit concentration limit: 25% of core capital[24]. The Bank should apply to the BOU for relief from the credit concentration limit on the basis that the advances are very short-term, are well-secured, and are in the best interests of the banking system.

I. Utilize BOU Advances

96. The BOU offers several advance facilities to commercial banks (para. 60). As it becomes more aggressive in managing its liquid assets, the Bank should be prepared to draw at times upon one or more of the BOU facilities. The proposed liquidity policy (para. 68) recognizes the BOU as a source of short-term funds.

97. At present, the BOU basic rate (16.5%) is set high in order to penalize borrower banks. With the new framework of supervision, the rate (for basic and seasonal facilities) may drop significantly. When analyzing the potential utilization of overnight and short-term BOU advances, the annual rate should not be overly emphasized, as the actual cash

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[24]BOU Regulation: Limitations on Advances and Credit Facilities to a Single Borrower, 1993.

outflows in payment of interest on a daily basis are small, far exceeded by the benefits of an active treasury program that may, for short periods, require the Bank to borrow funds.

J. Actively Manage the Liquid Funds Position

98. The Bank does not actively manage its liquid funds position (para. 26) and has taken a liquid asset stance that ensures regulatory compliance through maintenance of excessive central bank balances (para. 37). The primary role of the proposed Treasury Department should be to monitor and to analyze the Bank's short-term liquid asset position in relation to regulatory and operational requirements and to advise management in directing surplus funds into productive investment.

99. The responsibility for prudent investment should be a joint responsibility of all senior managers, as the flow of funds and liquid asset balances are the result of the interactions between lending, investment, and deposit activities. The ability to project and manage the flows is dependent on the quality of information available to these same managers. The EMC should be responsible for the funds deployment decision and the Treasury Department should be responsible for providing the needed information, as well as for executing those elements of the EMC strategy within its control.

100. The EMC should meet each Monday, after verification of Friday BOU balances and notification of treasury bill auction awards, to consider the detailed strategy for the next five days. Longer-term strategies may also be developed in these meetings. The Treasury Department should support the EMC with analyses of the Bank's liquidity position that include near-term forecasts of funds available and regulatory compliance.

101. Elements to be considered in the analysis include the most recent BOU balances (i.e., close of business Friday, less payments for treasury bill awards), the state of the investment portfolio and interbank transactions, known and predicted funding commitments, estimated clearings, branch currency balances and movements, and the most recent state and projections of the Bank's CRR and LRR compliance. Much of this information may be supplied to the EMC by the Treasury Department, but the other EMC members must be prepared to project advance and deposit activity for the period.

102. The objective of the meeting is to determine the availability of funds for lending and investment or the need for funds to meet existing obligations. The meeting should conclude with a decision on the amount of new advances to be permitted and with directions to the Treasury Department as to the utilization of excess funds or the circumstances and limits under which the head will seek funds from outside sources.

103. The EMC should use a consistent format for analysis and, initially, should use a simple set of parameters for determining funds availability. A sample analysis form that uses two parameters, a minimum target BOU balance (based on the two-week prior CRR) and a lending availability ratio (based on estimated surplus LRR assets), is presented and explained at Appendix S.

104. The two-parameter model was tested against weekly data[25] for the third quarter 1994 and the results are shown at Appendix T. If this model had been in use during the period, and the decisions made as suggested, the Bank could have invested USh. 1 billion in treasury bills and made additional advances of USh. 1.7 billion while still meeting both CRR and LRR requirements. The Bank would have had to borrow funds (using a portion of its treasury bill portfolio as collateral) for only one week during the period.

105. Each week, actual results should be compared to the previous week's forecast. As the EMC gains experience in projecting the Bank's liquid funds position, a more complex model should be put into place and the values of the parameters modified according to the level of liquidity risk that the EMC is willing to accept.

K. Asset-Liability Management

106. Asset-liability management is a "whole-bank" approach to the management tasks of generating profits, maintaining capital adequacy, controlling credit, interest-rate, liquidity, and transactional risks, managing growth, and providing adequate returns to investors. Focus by Bank management on liquidity is a first step toward asset-liability management.

107. Refinement of the liquidity forecasting model is a second step that is expected to be demanded by the EMC as they gain experience and become comfortable with active treasury management. The inclusion of valid information regarding loan and deposit maturities, based on ledger data (eventually from automated systems) and modified by management projections, will enhance the accuracy of the model considerably. This information, even if it does not include 100% of the Bank, can be the basis for the development of maturity gap reports that are the most important elements of the interest-rate risk analysis tools that drive the asset-liability management approach.

L. Interim Measures

108. Bank management has indicated that it may not be practical to establish the Treasury Department immediately as a discrete fully-functioning unit. Further, there may be some benefit from the EMC involving itself with the decisions, data, and analyses required, prior to the identification and appointment of permanent department staff. An interim approach that will provide many of the financial benefits, while deferring organizational issues, is considered below.

109. The key elements of the treasury strategy in the near term are the capture and analysis of relevant liquidity-related data and the weekly decision by the EMC as to funds deployment strategy. The key decisions to made in the very near term are the utilization

[25] The analysis did not include the impact of the misstatement of nostro balances in the weekly statement of liquidity. Actual funds available for investment could have been over USh. 700 million higher, subject to minimum nostro account balance requirements.

of the existing liquidity surplus and the initial purchases of securities for the investment portfolio (para. 86).

110. During the initial period of treasury operations, the General Manager, Operations could fulfill many of the functions included in the Treasury Department Head job description (Appendix P), with assignment of most of the tasks included in the Treasury Assistant job description (Appendix R) to a staff assistant. The key tasks of the assistant in the initial period should be to improve the weekly statement of liquidity reporting process (para. 73) and to develop the weekly liquid funds analysis worksheet (para. 103 and Appendix S) that will support the EMC's decisions.

111. As the Bank's treasury activities operate in this interim mode, maximum benefits are not realizable, as active treasury management requires the development of outside sources of short-term funds. However, even with immediate organization of the Treasury Department, it is unlikely that interbank credit lines could be in place prior to the second quarter 1995, as a result of the Bank's present capital deficiency and the state of market development. Deferral of the decision to appoint a department head would not materially affect the financial benefits to be achieved and would permit the EMC to become familiar with the treasury management process and to refine the department head job description accordingly.

V. Conclusions

A. Present State

112. The Bank's treasury operations are weak and presently contribute little to the Bank's financial or operational improvement. The Bank is liquid as a result of recent deposit inflows, but excessive balances have been maintained in currency and in non-earning accounts at the BOU and at offshore correspondents. There are no procedures in place to ensure regulatory compliance, to monitor and mobilize non-earning liquid assets, or to measure performance in terms of asset efficiency. The Bank's capital deficiency prevents it from participating in such interbank funds markets as now exist.

113. The regulatory and financial environment in which the Bank operates is undergoing significant change. Liquidity regulations are in force and capital adequacy standards will be mandatory in 1996. The central bank is moving to wean banks from official support and force participation in an interbank funds market.

B. Impact of Treasury Management

114. The establishment of the Treasury Department should, for the first time in the Bank's history, provide the Bank with a central unit for analysis and execution of short-term financial plans. The demand for liquidity-relevant information should be a cause for significant improvement in the Bank's information systems, and in the enforcement of operational controls over the underlying transactions.

115. Active liquid asset management by the EMC, based upon Treasury Department analysis, should enhance the profitability of Bank considerably. The mobilization of now unused and non-earning assets could result in additional revenue of over USh. 350 million per year while accepting limited incremental risks.

116. The development of active treasury management will not be effortless. The Bank's progress in achieving treasury goals should be monitored closely. Additional external assistance may be necessary to refine the analytical tools in place and to train key personnel in more sophisticated asset-liability management techniques, as the Bank's regulatory and economic environment places increasingly higher professional demands on the performance of its managers.

C. Future Prospects

117. The Bank's strong links to the cooperative movement and large branch network provide a competitive advantage over other commercial banks. After recapitalization, with management commitment to the asset-liability management approach, and supported by the development of lively interbank and secondary securities markets, the Bank could emerge as a significant and strong element of the local financial system.

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Appendix A

Terms of Reference: Treasury Consultant

The Cooperative Bank Limited is in the process of restructuring. The goal of this effort is to achieve an operating profit for the year ending December 31, 1994 and a profit for the year 1995. To assist in obtaining these goals the Bank is in the process of establishing a Treasury Department. The focus of the treasury consultancy shall be to develop the role of the Treasury Department within the Bank, define its function and establish the department's policies and operating guidelines. Specific outputs shall include:

1. Prepare a detailed description of the department's role and function.

2. Recommend staffing levels necessary for the department to fulfill its role. If needed, recommend additional training for the department's personnel.

3. Prepare job descriptions for the department's head and its staff.

4. Set goals for the department to achieve during its first year of operations and with its head prepare a work plan aimed at achieving those goals.

5. Recommend methods of liquidity management which will allow the Bank to satisfy the Bank of Uganda reserve requirements while earning the highest yield prudent on its assets.

6. Recommend cash management guidelines which will allow the Bank to serve the needs of its clients while minimizing its risk.

7. Subject to the time constraints of the consultancy, conduct on the job training for the department's personnel.

The above terms of reference are appended to the assignment letter agreement between the consultant and ACDI.

Appendix B

List of Contacts

The Cooperative Bank, Limited
Godfrey I. L. Nsubuga, Managing Director. (1)(2)
Charles Okoth-Owor, General Manager, Secretariat. (1)(2)
Dirk Van Hook, General Manager, Marketing (concurrently ACDI Consultant). (1)(2)
Warren Niles, General Manager, Operations (concurrently ACDI Consultant). (1)(2)
Richard Obura, Deputy General Manager, Operations. (2)
Moses Tefula, Deputy General Manager, Marketing. (2)
Polly K. Ndyarugahi, Chief Accountant. (2)
William S. K. Sekweyama, Assistant Chief Accountant - Finance.

(1) Executive Management Committee (EMC) member.
(2) Management Operations Committee (MOC) member.

Bank of Uganda
Ivan Mulindwa, Director, Securities and Capital Markets.

International Monetary Fund
Mark J. Ellyne, Resident Representative, Kampala.

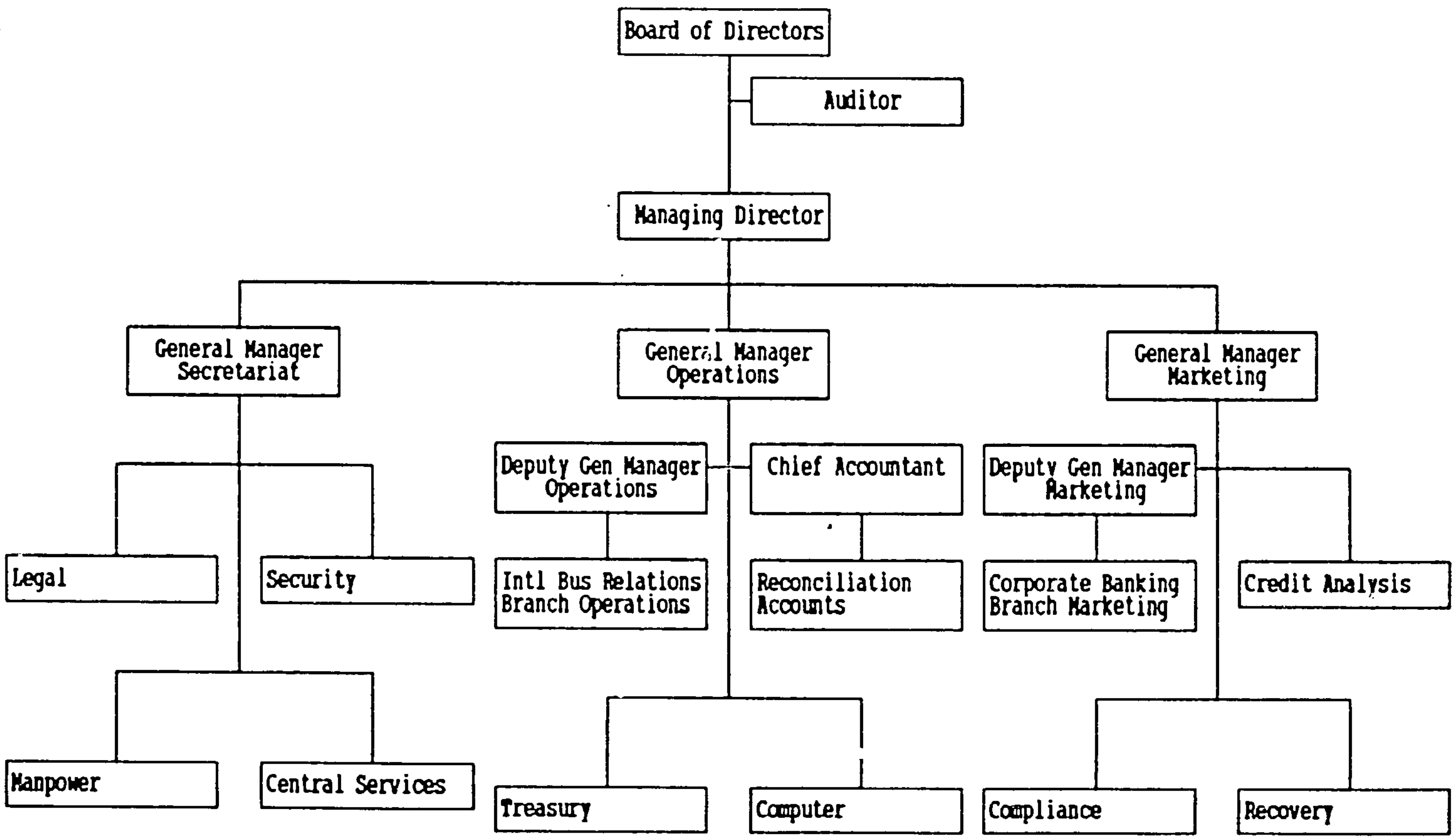
Agricultural Cooperative Development International
Joshua Walton, Vice President, Sub-Saharan Africa.
Dirk Van Hook, Consultant, CAAS Project Leader, concurrently Cooperative Bank General Manager, Marketing.
Bruce MacQueen, Consultant, IBR Advisor.
David Morris. Consultant.
Warren Niles, Consultant, concurrently Cooperative Bank General Manager, Operations.

United States Agency for International Development
Gary Bayer, Division Chief, Agriculture and Natural Resources Division, Kampala.
Duane Eriksmoen, Project Officer, CAAS Project.

Other Banks
Andrew Cavell, Deputy Managing Director, Barclays Bank Uganda, Ltd., Kampala.
Maurice E. Menasche, Vice President, Citibank, Financial Institutions & Transaction Service Group, New York.
Shaffiq Dharamshi, Manager, Citibank, Africa Regional Marketing Office, Nairobi.
J. K Laing, Assistant General Manager, Stanbic Bank Uganda Limited, Kampala.

Appendix C
Organizational Chart

The Cooperative Bank Limited



Appendix D

Background Documents

Gazetted Laws and Regulations
The Bank of Uganda Statute, 1993.
The Co-operative Societies Statute, 1991.
The Co-operative Societies Regulations, 1993.
The Financial Institutions Statute, 1993.

Bank of Uganda
Minutes of the Governor's Meeting with Chief Executives of Commercial Banks Held on 3rd August, 1994.
Circular to All Banks, 27th January 1994, includes the following BOU regulations and the associated policy statements of the BOU:
- Policies and Guidelines for the Licensing of Financial Institutions;
- Prudential Requirements and Aspects of Bank Liquidity;
- Limitations on Advances & Credit Facilities to a Single Borrower;
- Prudential Norms on Asset Quality for Financial Institutions; and
- Limitations on Credit Extended to Insiders.

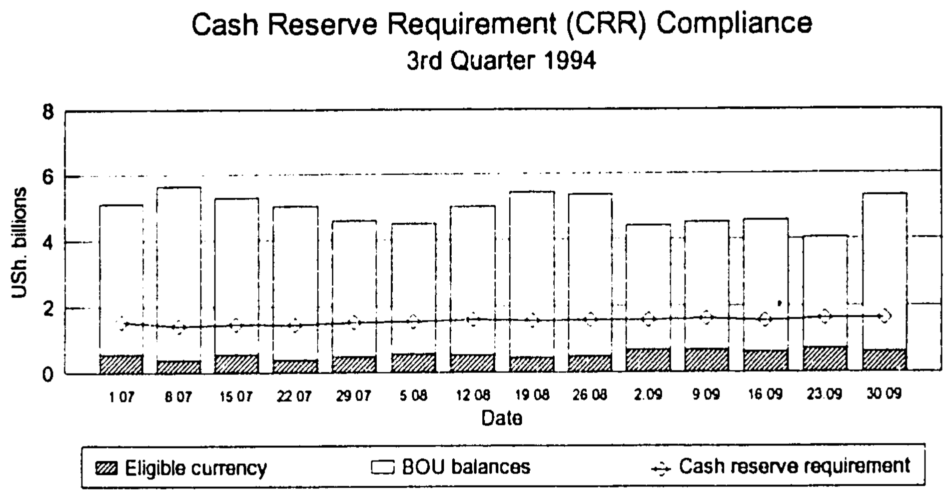
Revised Circular on Advances, 7th May 1994.
Proposed Revision of Kampala Bankers Clearing House.Rules and Procedures: August 1994. Letter dated 30 September 1994 from Executive Director, Supervision to Chairman, Uganda Bankers Association.

World Bank
Uganda: Financial Sector Adjustment Credit Preappraisal Mission, February 19 to March 18, 1992. The Cooperative Bank, Limited, Kampala, Uganda. Chris J. Barltrop, Banking Consultant.

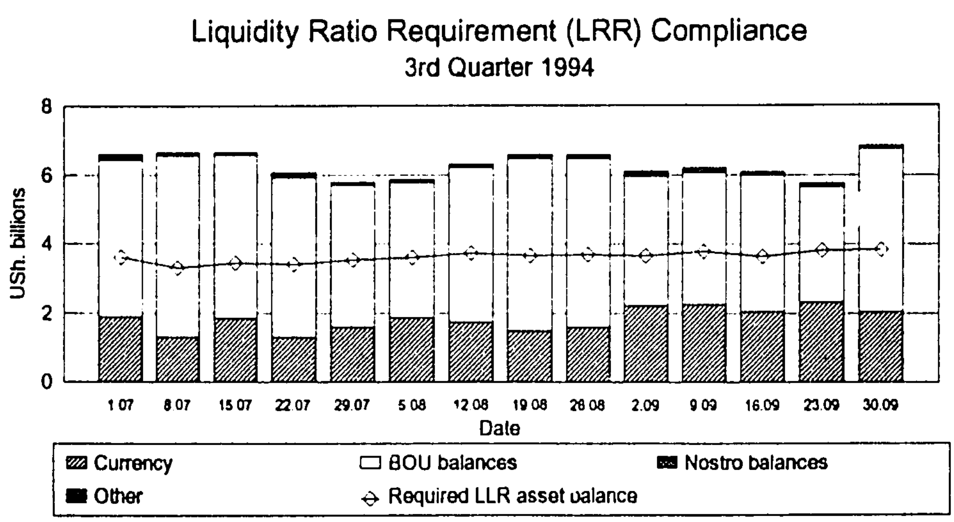
ACDI Consultancy Reports
An Assessment of the Activities, Controls and Potential of the International Business Relations Department of the Co-operative Bank Ltd., Kampala, Uganda. Craig Hammitt, Jr. February 14, 1994.
Restructuring and Recapitalization: Cooperative Bank Limited. Michael Luca. March 31, 1994.
Branch Operations Review: Co-operative Bank Limited, Kampala, Uganda. Warren Niles. September 20, 1994.

Appendix E

Regulatory Liquidity: Charts



Source: Weekly statements of liquidity. Data as of each Friday.



Source: Weekly statements of liquidity. Data as of each Friday.
Note: Nostro account balances are understated as a result of reporting error. See text.

THE CO-OPERATIVE BANK, LIMITED
CONSOLIDATED LIQUIDITY DATA

DATE	1.07	8.07	15.07	22.07	29.07	5.08
CASH RESERVE REQUIREMENT (CRR)						
Required cash reserves	1,535,609	1,408,474	1,464,313	1,448,437	1,512,049	1,540,489
Reserve balances were contributed by:						
Currency holdings	1,875,172	1,305,402	1,851,043	1,303,303	1,589,394	1,860,072
Currency reserve eligibility percentage	30%	30%	30%	30%	30%	30%
Eligible currency reserves	562,552	391,621	555,313	390,991	476,818	558,022
BOU balances	4,562,696	5,261,620	4,728,322	4,636,480	4,119,033	3,929,421
Total CRR-eligible assets	5,125,248	5,653,241	5,283,635	5,027,471	4,595,851	4,487,443
Surplus (deficit) CRR-eligible assets	3,589,639	4,244,767	3,819,322	3,579,034	3,083,802	2,946,954
LIQUIDITY RATIO REQUIREMENT (LRR)						
Required liquidity	3,610,630	3,305,430	3,441,246	3,400,569	3,541,960	3,613,941
Liquidity balances were contributed by:						
Currency holdings	1,875,172	1,305,402	1,851,043	1,303,303	1,589,394	1,860,072
BOU balances	4,562,696	5,261,620	4,728,322	4,636,480	4,119,033	3,929,421
Development Finance Fund	56,253	56,253	56,253	56,253	56,253	56,253
Demand and call balances abroad	111,325	33,022	17,399	75,796	29,581	31,807
Total LRR-eligible assets	6,605,446	6,656,297	6,653,017	6,071,832	5,794,261	5,877,553
Surplus (deficit) LRR-eligible assets	2,994,816	3,350,867	3,211,771	2,671,263	2,252,301	2,263,612

THE CO-OPERATIVE BANK, LIMITED
CONSOLIDATED LIQUIDITY DATA

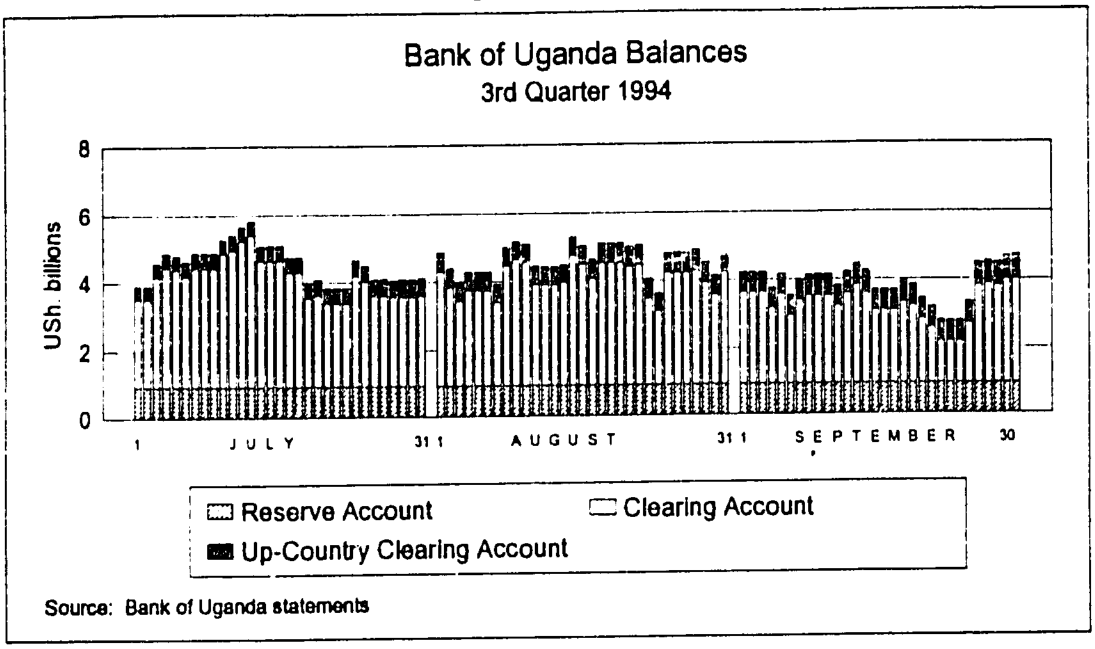
DATE	12.08	19.08	26.08	2.09	9.09	16.09
CASH RESERVE REQUIREMENT (CRR)						
Required cash reserves	1,585,563	1,562,005	1,578,530	1,564,769	1,618,675	1,560,186
Reserve balances were contributed by:						
Currency holdings	1,739,034	1,487,122	1,597,911	2,210,883	2,236,105	2,047,568
Currency reserve eligibility percentage	30%	30%	30%	30%	30%	30%
Eligible currency reserves	521,710	446,137	479,373	663,265	670,832	614,270
BOU balances	4,486,146	4,994,762	4,881,993	3,761,223	3,844,272	3,953,926
Total CRR-eligible assets	5,007,856	5,440,899	5,361,366	4,424,488	4,515,104	4,568,196
Surplus (deficit) CRR-eligible assets	3,422,293	3,878,894	3,782,836	2,859,719	2,896,429	3,008,010
LIQUIDITY RATIO REQUIREMENT (LRR)						
Required liquidity	3,731,984	3,663,593	3,704,861	3,666,333	3,792,902	3,640,975
Liquidity balances were contributed by:						
Currency holdings	1,739,034	1,487,122	1,597,911	2,210,883	2,236,105	2,047,568
BOU balances	4,486,146	4,994,762	4,881,993	3,761,223	3,844,272	3,953,926
Development Finance Fund	56,253	56,253	56,253	56,253	56,253	56,253
Demand and call balances abroad	39,600	51,008	52,041	88,853	69,702	40,674
Total LRR-eligible assets	6,321,033	6,589,145	6,588,198	6,117,212	6,206,332	6,098,421
Surplus (deficit) LRR-eligible assets	2,589,049	2,925,552	2,883,337	2,450,879	2,413,430	2,457,446

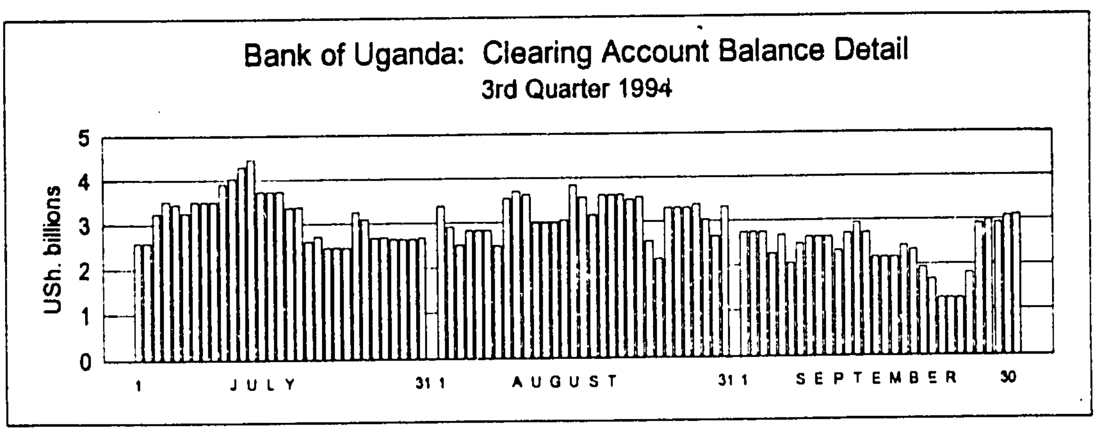
THE CO-OPERATIVE BANK, LIMITED
CONSOLIDATED LIQUIDITY DATA

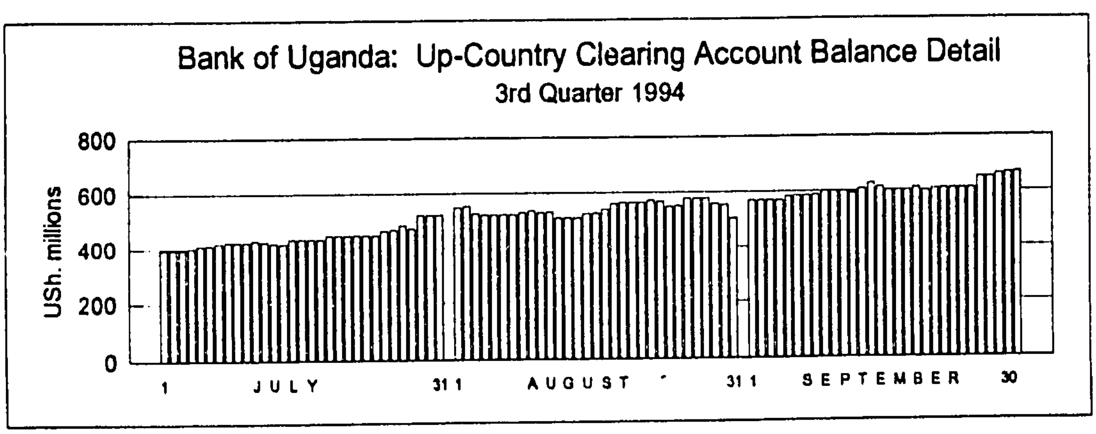
DATE	23.09	30,09	3rd Quarter Mean
CASH RESERVE REQUIREMENT (CRR)			
Required cash reserves	1,635,928	1,638,075	1,546,650
Reserve balances were contributed by:			
Currency holdings	2,325,596	2,046,696	1,819,664
Currency reserve eligibility percentage	30%	30%	30%
Eligible currency reserves	697,679	614,009	545,899
BOU balances	3,336,940	4,696,041	4,370,920
Total CRR-eligible assets	4,034,619	5,310,050	4,916,819
Surplus (deficit) CRR-eligible assets	2,398,691	3,671,975	3,370,169
LIQUIDITY RATIO REQUIREMENT (LRR)			
Required liquidity	3,827,555	3,837,187	3,627,083
Liquidity balances were contributed by:			
Currency holdings	2,325,596	2,046,696	1,819,664
BOU balances	3,336,940	4,696,041	4,370,920
Development Finance Fund	56,253	56,253	56,253
Demand and call balances abroad	55,425	46,452	53,049
Total LRR-eligible assets	5,774,214	6,845,442	6,299,886
Surplus (deficit) LRR-eligible assets	1,946,659	3,008,255	2,672,803

Appendix G

Bank of Uganda Balances: Charts







Appendix H

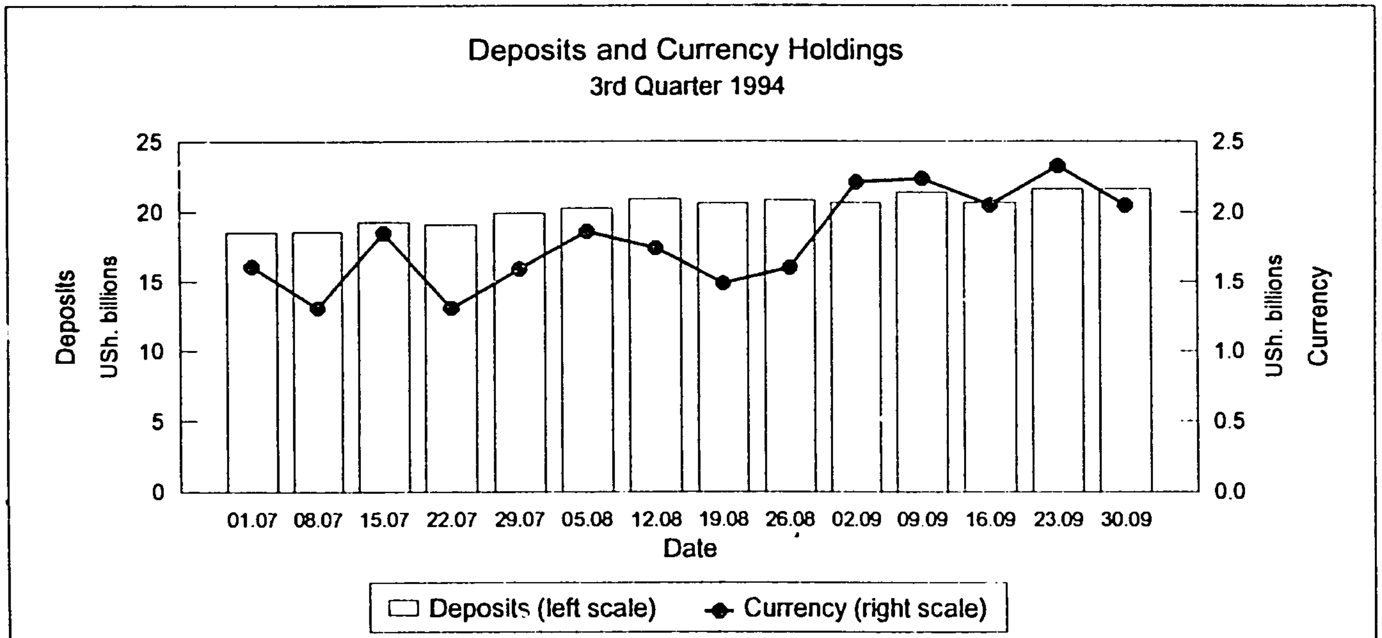
Bank of Uganda Balances: Detail Data

Date	Reserve Account	Clearing Account	Up-Country Clearing Account	Total BOU Balances
01.07	935,000,000	2,578,816,384	396,575,533	3,910,391,917
02.07	935,000,000	2,578,816,384	396,575,533	3,910,391,917
03.07	935,000,000	3,231,120,607	396,575,533	4,562,696,140
04.07	935,000,000	3,512,596,287	401,600,465	4,849,196,752
05.07	935,000,000	3,443,007,171	412,417,632	4,790,424,803
06.07	935,000,000	3,251,753,273	414,780,756	4,601,534,029
07.07	935,000,000	3,500,365,784	420,702,316	4,856,068,100
08.07	935,000,000	3,500,365,784	424,867,253	4,860,233,037
09.07	935,000,000	3,500,365,784	424,867,253	4,860,233,037
10.07	935,000,000	3,901,752,661	424,867,253	5,261,619,914
11.07	935,000,000	4,027,289,138	431,138,925	5,393,428,063
12.07	935,000,000	4,291,373,532	427,406,972	5,653,780,504
13.07	935,000,000	4,451,537,247	421,016,972	5,807,554,219
14.07	935,000,000	3,710,478,014	417,266,972	5,062,744,986
15.07	935,000,000	3,710,478,014	435,111,772	5,080,589,786
16.07	935,000,000	3,710,478,014	435,111,772	5,080,589,786
17.07	935,000,000	3,358,210,179	435,111,772	4,728,321,951
18.07	935,000,000	3,369,341,537	436,924,674	4,741,266,211
19.07	935,000,000	2,593,671,202	450,277,272	3,978,948,474
20.07	935,000,000	2,696,141,649	449,568,450	4,080,710,099
21.07	935,000,000	2,457,466,379	450,219,775	3,842,686,154
22.07	935,000,000	2,457,466,379	449,519,775	3,841,986,154
23.07	935,000,000	2,457,466,379	449,519,775	3,841,986,154
24.07	935,000,000	3,251,959,734	449,519,775	4,636,479,509
25.07	935,000,000	3,083,738,057	464,000,047	4,482,738,104
26.07	935,000,000	2,665,302,135	468,339,491	4,068,641,626
27.07	935,000,000	2,675,661,774	484,568,411	4,095,230,185
28.07	935,000,000	2,628,382,646	473,716,228	4,037,098,874
29.07	935,000,000	2,628,382,646	521,821,728	4,085,204,374
30.07	935,000,000	2,628,382,646	521,821,728	4,035,204,374
31.07	935,000,000	2,662,210,903	521,821,728	4,119,032,631
01.08	935,000,000	3,368,547,928	548,304,397	4,851,852,325
02.08	935,000,000	2,904,093,719	554,290,797	4,393,384,516
03.08	935,000,000	2,498,953,491	527,673,697	3,961,627,188
04.08	935,000,000	2,818,694,012	521,953,997	4,275,648,009
05.08	935,000,000	2,818,694,012	523,867,203	4,277,561,215
06.08	935,000,000	2,818,694,012	523,867,203	4,277,561,215
07.08	935,000,000	2,470,553,850	523,867,203	3,929,421,053
08.08	935,000,000	3,532,857,687	528,773,975	4,996,631,662
09.08	935,000,000	3,694,446,698	535,659,925	5,165,106,623
10.08	935,000,000	3,620,598,831	530,659,274	5,086,258,105
11.08	935,000,000	2,979,108,383	530,871,361	4,444,979,744
12.08	935,000,000	2,979,108,383	508,149,440	4,422,257,823
13.08	935,000,000	2,979,108,383	508,149,440	4,422,257,823
14.08	935,000,000	3,042,996,328	508,149,440	4,486,145,768
15.08	935,000,000	3,823,597,567	525,883,354	5,284,480,921
16.08	935,000,000	3,557,315,773	528,190,025	5,020,505,798
17.08	935,000,000	3,147,698,188	541,494,012	4,624,192,200
18.08	935,000,000	3,601,656,402	559,946,309	5,096,602,711
19.08	935,000,000	3,601,656,402	564,918,009	5,101,574,411
20.08	935,000,000	3,601,656,402	564,918,009	5,101,574,411
21.08	935,000,000	3,494,844,109	564,918,009	4,994,762,118
22.08	935,000,000	3,544,835,788	572,355,946	5,052,191,734
23.08	935,000,000	2,553,425,010	567,994,386	4,056,419,396

Appendix H (continued)

Bank of Uganda Balances: Detail Data (continued)

Date	Reserve Account	Clearing Account	Up-Country Clearing Account	Total BOU Balances
24.08	935,000,000	2,164,430,684	549,325,077	3,648,755,761
25.08	935,000,000	3,303,811,156	551,375,616	4,790,186,772
26.08	935,000,000	3,303,811,156	577,595,616	4,816,406,772
27.08	935,000,000	3,303,811,156	577,595,616	4,816,406,772
28.08	935,000,000	3,369,397,735	577,595,616	4,881,993,351
29.08	935,000,000	3,016,320,335	559,429,511	4,510,749,846
30.08	935,000,000	2,652,460,498	553,012,034	4,140,472,532
31.08	935,000,000	3,313,977,484	504,777,361	4,753,754,845
01.09	935,000,000	2,725,650,493	568,492,361	4,229,142,854
02.09	935,000,000	2,725,650,493	570,052,361	4,230,702,854
03.09	935,000,000	2,725,650,493	570,052,361	4,230,702,854
04.09	935,000,000	2,256,170,864	570,052,361	3,761,223,225
05.09	935,000,000	2,662,532,221	581,985,921	4,179,518,142
06.09	935,000,000	2,035,130,399	586,297,374	3,556,427,773
07.09	935,000,000	2,468,403,057	584,153,574	3,987,556,631
08.09	935,000,000	2,618,940,407	587,520,445	4,141,460,852
09.09	935,000,000	2,618,940,407	599,895,845	4,153,836,252
10.09	935,000,000	2,618,940,407	599,895,845	4,153,836,252
11.09	935,000,000	2,309,375,875	599,895,845	3,844,271,720
12.09	935,000,000	2,691,171,226	591,395,845	4,217,567,071
13.09	935,000,000	2,926,582,071	607,996,232	4,469,578,303
14.09	935,000,000	2,697,963,238	627,763,232	4,260,726,470
15.09	935,000,000	2,167,335,428	614,166,469	3,716,501,897
16.09	935,000,000	2,167,335,428	603,718,879	3,706,054,307
17.09	935,000,000	2,167,335,428	603,718,879	3,706,054,307
18.09	935,000,000	2,415,207,323	603,718,879	3,953,926,202
19.09	935,000,000	2,310,498,238	611,975,844	3,857,474,082
20.09	935,000,000	1,921,040,614	600,161,754	3,456,202,368
21.09	935,000,000	1,663,690,861	608,023,624	3,206,714,485
22.09	935,000,000	1,248,116,634	609,190,510	2,792,307,144
23.09	935,000,000	1,248,116,634	610,445,049	2,793,561,683
24.09	935,000,000	1,248,116,634	610,445,049	2,793,561,683
25.09	935,000,000	1,792,749,390	610,445,049	3,338,194,439
26.09	935,000,000	2,900,174,741	648,601,604	4,483,776,345
27.09	935,000,000	2,970,750,305	650,266,604	4,556,016,909
28.09	935,000,000	2,910,073,047	660,436,876	4,505,509,923
29.09	935,000,000	3,070,502,704	664,625,850	4,670,128,554
30.09	935,000,000	3,092,841,313	668,199,847	4,696,041,160
Mean	935,000,000	2,910,549,198	529,856,367	4,375,405,565
Minimum	935,000,000	1,248,116,634	396,575,533	2,792,307,144
Maximum	935,000,000	4,451,537,247	668,199,847	5,807,554,219



Source: Weekly statements of liquidity 01.07.94 through 30.09.94

COOPERATIVE BANK, LIMITED
Deposits and Currency, per Weekly Statements of Liquidity
3rd Quarter 1994
In USh. thousands

BRANCH	01.07.94		08.07.94		15.07.94		22.07.94	
	Deposits	Currency	Deposits	Currency	Deposits	Currency	Deposits	Currency
City	4,784,846	318,513	4,770,440	217,946	4,942,180	119,900	5,120,197	200,029
Jinja	1,328,233	67,915	1,292,832	52,926	1,136,624	141,012	1,219,884	97,143
Wandegeya	1,142,250	45,044	1,214,377	47,200	1,214,980	52,358	1,121,067	43,107
Gulu	1,045,419	73,529	1,092,796	26,155	1,076,433	53,180	1,073,892	83,360
Mbale	731,957	96,193	710,087	82,052	848,670	164,498	685,072	30,970
Lira	915,663	54,423	920,422	37,771	945,052	54,842	970,106	16,931
Tororo	859,728	85,012	906,239	32,652	920,695	86,396	890,491	37,715
Hoima	762,311	76,856	830,207	94,569	811,383	168,385	755,962	40,208
Mbarara	939,492	134,146	935,613	150,991	879,563	36,202	798,267	67,973
Kasese	755,253	98,634	665,744	7,106	699,296	196,157	671,987	258,494
Arua	603,141	39,326	417,723	60,229	641,254	107,611	596,748	59,717
Rukungiri	432,124	13,796	512,148	20,905	505,196	97,186	722,376	51,862
Masaka	416,798	40,424	394,806	147,794	448,908	186,100	521,645	26,491
Mityana	484,016	48,435	444,974	39,808	537,918	40,666	484,889	30,784
Soroti	525,387	7,973	536,379	2,511	557,684	14,902	556,450	8,798
Fort Portal	495,253	65,025	540,579	54,427	569,103	56,322	517,025	20,146
Ishaka	302,917	58,032	308,548	16,839	433,172	37,553	380,585	18,937
Kayunga	498,207	24,102	466,254	56,894	438,015	29,981	384,835	74,887
Kitgum	383,555	12,851	383,555	12,851	448,556	63,602	414,480	65,499
Ntungamo	212,183	23,152	267,232	24,661	276,963	31,057	263,234	1,800
Wobulenzi	348,999	19,218	363,859	7,576	327,355	600	308,931	21,606
Kabale	267,917	60,731	263,579	28,628	272,926	17,753	300,964	14,643
Masindi	186,221	13,311	200,086	71,510	202,136	90,961	224,067	18,084
HO	2,005	123,885	2,005	8,867	2,005	1,177	2,005	11,777
IBR	112,893	6,712	122,098	2,534	132,760	2,642	111,462	2,142
Total Bank	18,536,770	1,607,238	18,562,582	1,305,402	19,268,827	1,851,043	19,096,621	1,303,303

COOPERATIVE BANK, LIMITED
Deposits and Currency, per Weekly Statements of Liquidity
3rd Quarter 1994
In USh. thousands

BRANCH	29.07.94		05.06.94		12.08.94		19.08.94	
	Deposits	Currency	Deposits	Currency	Deposits	Currency	Deposits	Currency
City	4,968,230	245,724	5,013,228	254,591	5,235,192	260,046	4,784,851	156,354
Jinja	1,785,034	67,640	1,850,771	32,078	1,672,631	113,193	1,751,085	120,666
Wandegeya	1,218,383	54,040	1,140,505	70,788	1,162,335	79,613	1,205,928	43,633
Gulu	1,078,176	33,373	1,225,450	55,751	1,178,399	60,392	1,177,060	2,509
Mbale	700,193	51,177	904,544	51,561	1,098,386	175,345	1,267,648	160,844
Lira	955,224	34,591	921,801	44,838	921,801	44,838	902,273	10,685
Tororo	889,413	53,005	869,291	85,036	892,536	46,056	891,317	79,914
Hoima	765,230	71,250	919,253	62,100	915,721	82,107	889,645	30,090
Mbarara	873,965	70,678	792,875	82,941	792,576	83,825	663,057	86,017
Kasese	655,330	113,539	695,286	243,144	1,003,404	26,406	778,306	98,019
Arua	540,917	71,684	540,504	90,729	609,539	69,595	557,663	80,627
Rukungiri	729,735	77,149	696,653	105,287	665,981	95,210	651,170	43,334
Masaka	567,471	74,002	518,802	74,797	619,066	161,274	769,324	60,252
Mityana	587,019	71,622	614,178	42,589	543,694	82,544	560,504	139,477
Soroti	540,345	67,754	524,010	7,099	505,724	8,415	520,894	10,928
Fort Portal	528,906	71,878	544,168	66,465	556,707	61,349	543,563	64,703
Ishaka	441,399	77,932	371,236	78,243	461,470	12,913	461,470	12,913
Kayunga	457,093	64,260	481,940	75,394	449,865	8,555	473,065	43,313
Kitgum	419,444	23,287	419,444	23,287	404,491	30,078	387,987	48,392
Ntungamo	208,423	29,579	268,912	102,297	316,737	70,193	411,760	1,682
Wobulenzi	324,996	26,539	293,846	2,373	292,816	44,330	298,110	3,721
Kabale	297,616	28,491	269,608	28,765	272,324	15,262	292,258	17,149
Masindi	232,720	94,826	248,147	13,225	248,208	89,752	261,837	160,261
HO	2,005	8,747	2,005	148,000	2,005	3,947	2,005	3,947
IBR	162,079	6,627	136,840	18,694	78,775	13,796	114,685	7,692
Total Bank	19,929,346	1,589,394	20,263,297	1,860,072	20,900,383	1,739,034	20,617,465	1,487,122

Appendix J (continued)

Deposits and Currency Balances: Detail Data (continued)

COOPERATIVE BANK, LIMITED
Deposits and Currency, per Weekly Statements of Liquidity
3rd Quarter 1994
In USh. thousands

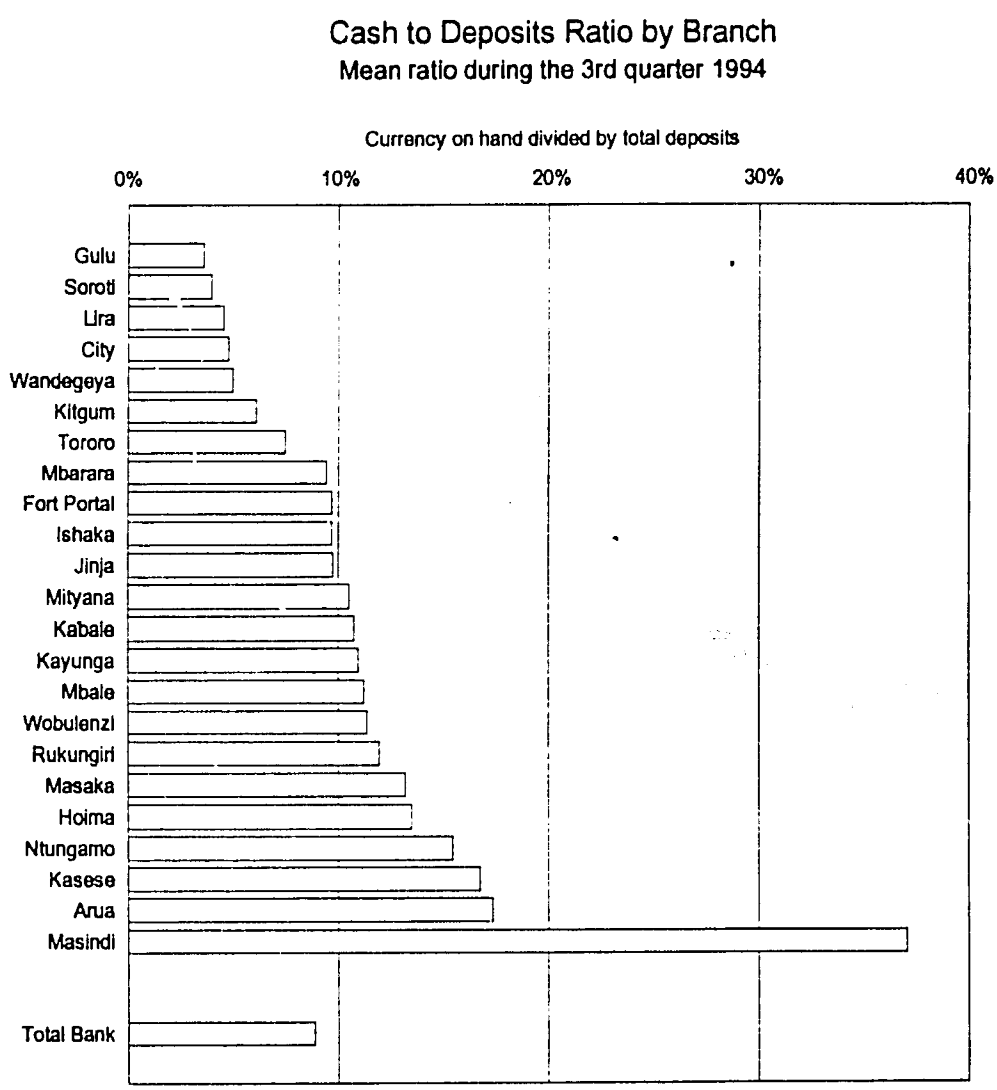
BRANCH	26.08.94		02.09.94		09.09.94		16.09.94	
	Deposits	Currency	Deposits	Currency	Deposits	Currency	Deposits	Currency
City	5,238,761	281,716	4,744,417	255,419	5,087,564	294,022	4,501,629	184,371
Jinja	1,722,620	43,466	1,746,021	184,597	1,736,402	306,440	1,604,098	297,436
Wandegeya	1,152,636	44,842	1,220,328	84,364	1,158,852	97,866	1,158,852	97,866
Gulu	1,128,911	5,312	1,128,911	5,312	1,243,995	43,806	1,233,892	76,051
Mbale	1,114,642	71,531	1,084,752	85,823	1,138,331	104,520	944,945	190,202
Lira	888,654	43,295	919,680	72,029	926,534	45,449	934,219	50,141
Tororo	877,287	10,619	863,869	57,899	907,411	108,969	954,936	52,325
Hoima	970,817	176,480	1,002,389	163,979	1,007,369	152,925	875,292	265,591
Mbarara	725,350	46,557	843,827	100,782	917,576	51,645	748,548	73,670
Kasese	773,355	64,012	862,146	277,700	771,827	203,164	853,739	96,212
Arua	555,682	157,422	569,958	98,359	618,193	118,986	962,097	163,516
Rukungiri	649,134	37,592	611,695	69,052	627,202	120,739	641,201	40,616
Masaka	567,666	27,528	783,655	162,878	745,961	9,034	764,995	12,165
Mityana	623,008	11,927	530,649	80,895	721,724	35,828	609,080	23,790
Soroti	557,883	35,454	607,838	33,052	619,945	23,574	611,925	10,247
Fort Portal	619,260	67,010	534,269	36,081	520,266	51,136	538,224	28,565
ishaka	471,177	39,403	497,249	27,563	430,565	42,240	463,785	81,158
Kayunga	449,458	90,563	419,305	25,159	405,476	53,990	383,477	55,280
Kitgum	394,170	17,006	402,643	14,851	382,690	11,996	371,659	6,530
Ntungamo	411,495	172,865	347,471	116,519	408,079	60,404	454,122	7,566
Wobulenzi	294,408	54,205	278,339	47,970	282,134	51,954	287,484	56,901
Kabale	278,312	13,864	289,695	40,098	295,097	33,221	321,309	44,346
Masindi	244,960	70,989	234,182	149,447	268,707	193,844	282,849	118,069
HO	2,005	3,947	2,005	6,347	2,005	6,347	2,005	6,347
IBR	113,643	10,306	131,135	14,708	139,235	14,006	147,707	8,607
Total Bank	20,825,294	1,597,911	20,656,428	2,210,883	21,363,140	2,236,105	20,652,069	2,047,568

COOPERATIVE BANK, LIMITED
Deposits and Currency, per Weekly Statements of Liquidity
3rd Quarter 1994
In USh. thousands

BRANCH	23.09.94		30.09.94		3rd Quarter Mean	
	Deposits	Currency	Deposits	Currency	Deposits	Currency
City	4,803,141	271,400	4,847,210	222,45[illegible]	4,917,278	234,463
Jinja	1,544,689	259,568	1,598,201	357,190	1,570,652	152,948
Wandegeya	1,225,540	44,778	1,259,383	19,893	1,185,387	58,957
Gulu	1,214,346	43,199	1,176,683	11,092	1,148,169	40,930
Mbale	951,255	128,703	927,653	74,115	936,295	104,824
Lira	935,749	33,867	928,854	43,479	927,574	41,941
Tororo	988,590	134,584	948,608	74,519	904,315	67,479
Hoima	786,971	255,349	945,596	9,947	874,153	117,845
Mbarara	1,017,366	41,713	814,786	78,298	838,776	78,960
Kasese	850,645	69,299	850,645	69,299	777,640	130,085
Arua	1,001,865	227,141	929,950	240,612	653,231	113,254
Rukungiri	686,532	155,507	666,357	121,518	628,393	74,982
Masaka	781,649	118,181	788,228	44,823	620,641	81,839
Mityana	655,264	72,920	583,823	118,607	570,053	59,992
Soroti	621,407	14,316	606,251	67,489	563,723	22,322
Fort Portal	560,649	53,784	528,981	37,022	542,640	52,422
Ishaka	556,017	16,188	608,559	78,018	442,011	42,709
Kayunga	372,576	22,453	402,217	[illegible]	434,413	47,534
Kitgum	446,978	6,567	434,928	8,156	406,756	24,640
Ntungamo	599,057	22,540	633,242	118,262	362,779	55,898
Wobulenzi	302,594	56,098	284,359	93,261	306,302	34,754
Kabale	294,447	18,656	323,311	72,368	288,526	30,998
Masindi	274,427	186,608	403,660	29,786	250,872	92,905
HO	2,005	66,397	2,005	8,717	2,005	29,175
IBR	143,331	5,780	136,222	7,131	127,348	8,670
Total Bank	21,617,090	2,325,596	21,629,712	2,046,696	20,279,930	1,800,526

Appendix K

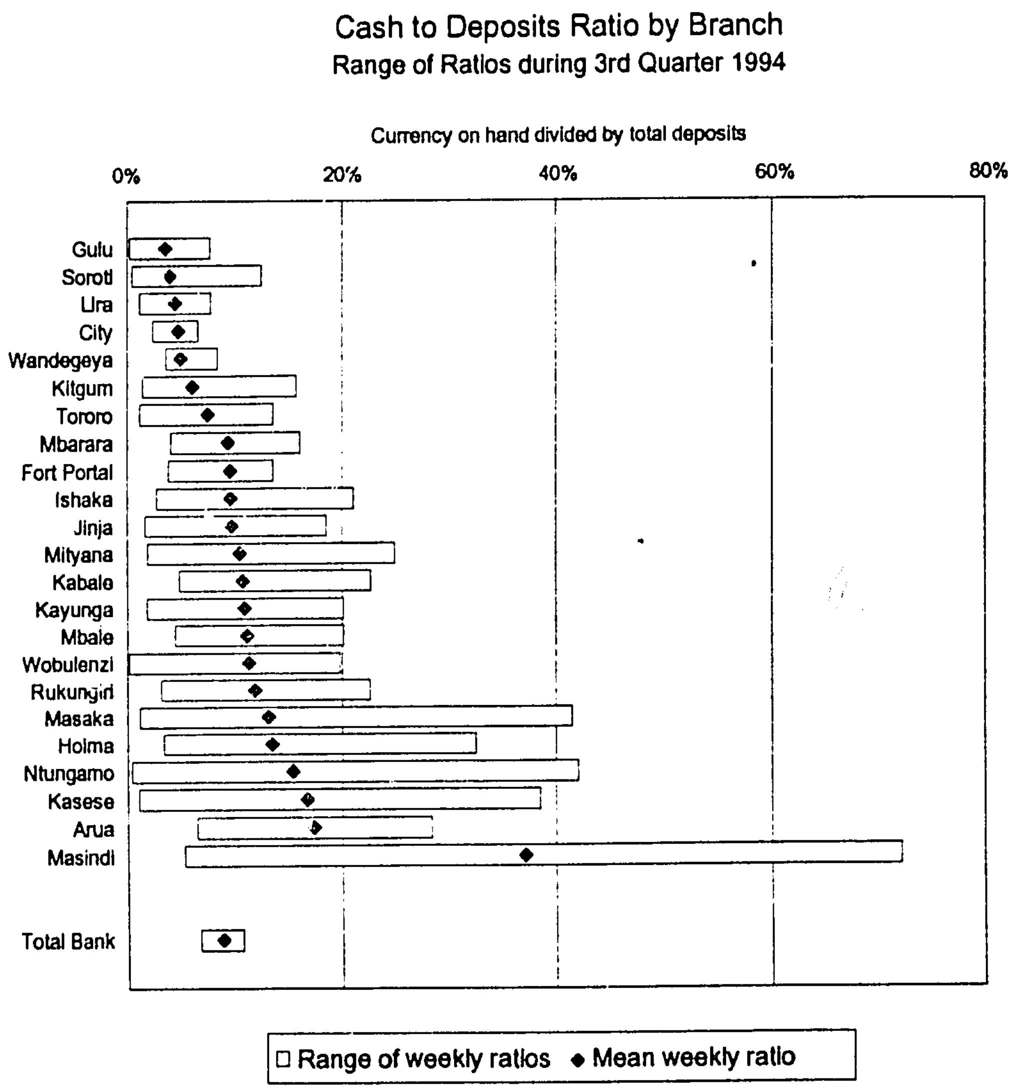
Branch Cash Management: Analytical Charts



Source: Weekly statements of liquidity.
Note: Total bank includes Head Office and IBR.

Appendix K (continued)

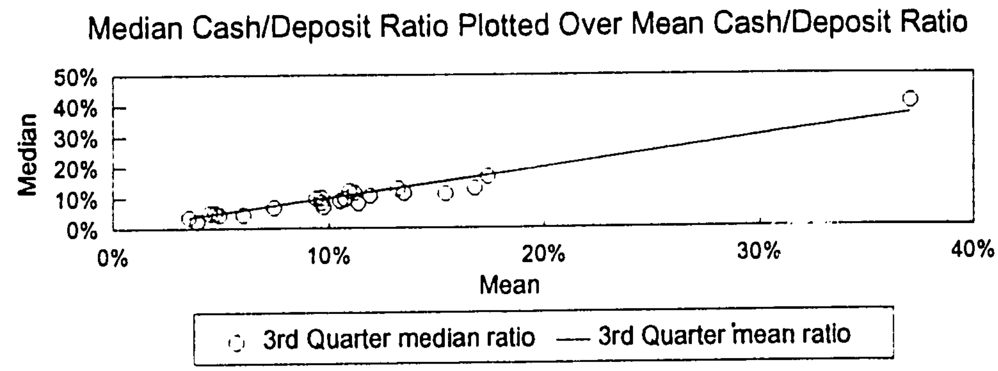
Branch Cash Management: Analytical Charts (continued)



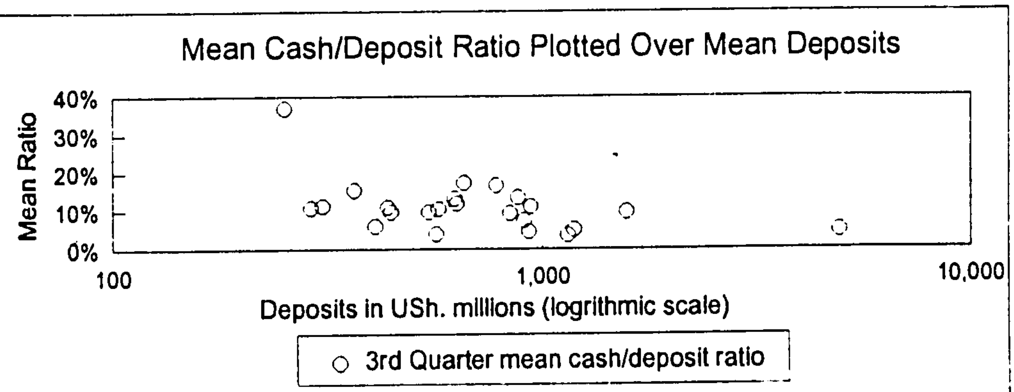
Source: Weekly statements of liquidity.
Note: Total bank includes Head Office and IBR.

Appendix K (continued)

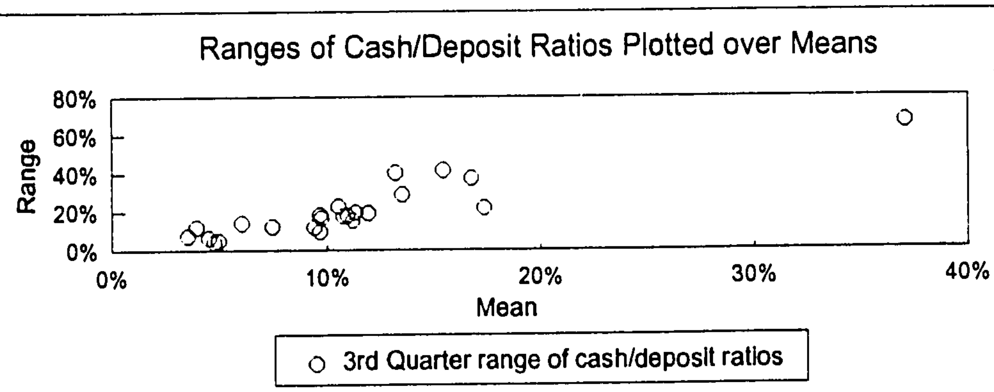
Branch Cash Management: Analytical Charts (continued)



Note: The purpose of this plot is to test if the mean is a reasonable measure.

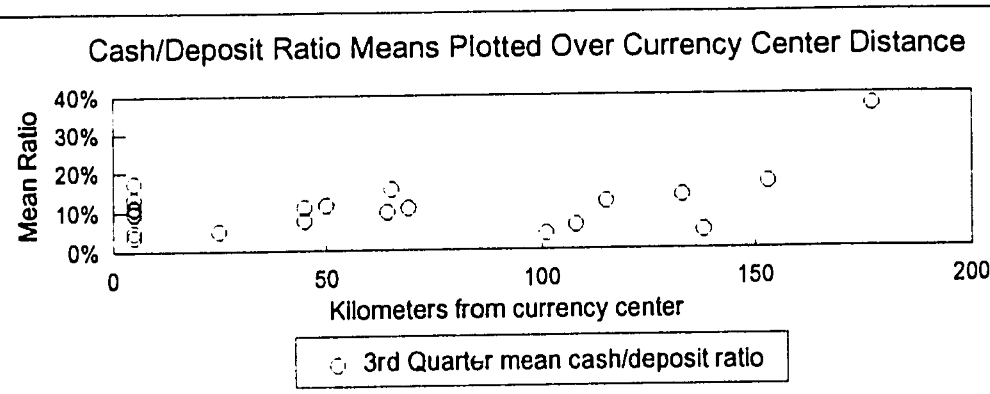


Note: The purpose of this plot is to test if the mean ratio is a function of mean deposits.

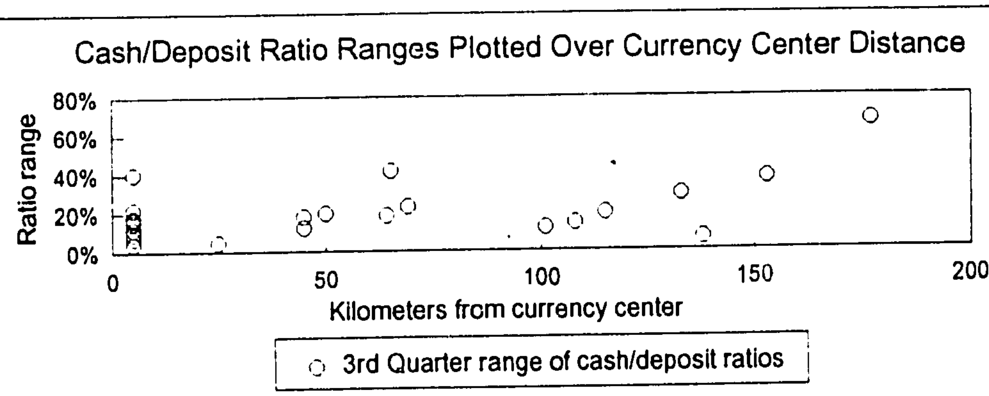


Note: The purpose of this plot is to test if ranges are a function of the means.

Branch Cash Management: Analytical Charts (continued)



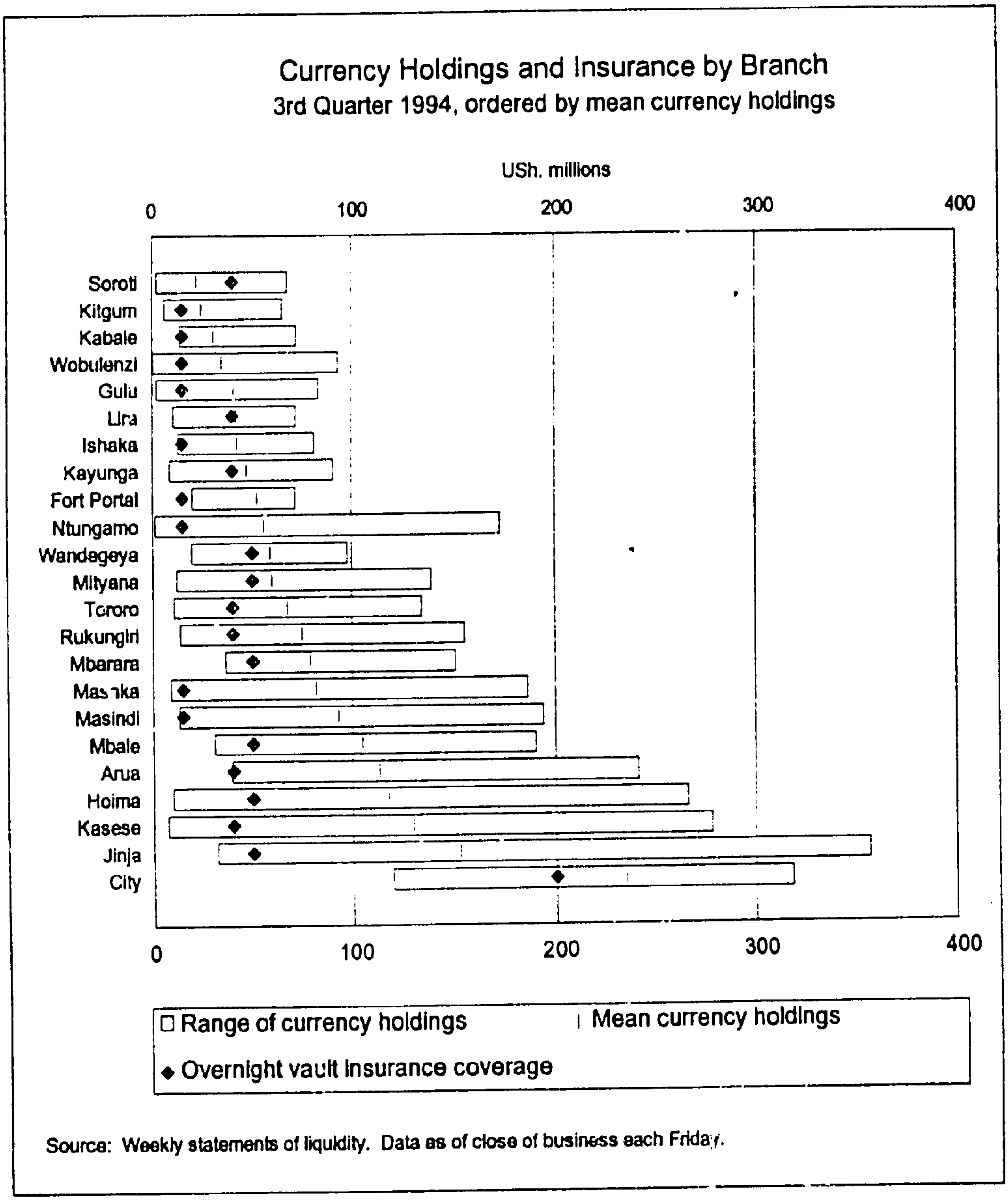
Note: The purpose of this plot is to test if the mean ratio is a function of distance.



Note: The purpose of this plot is to test if the ratio range is a function of distance.

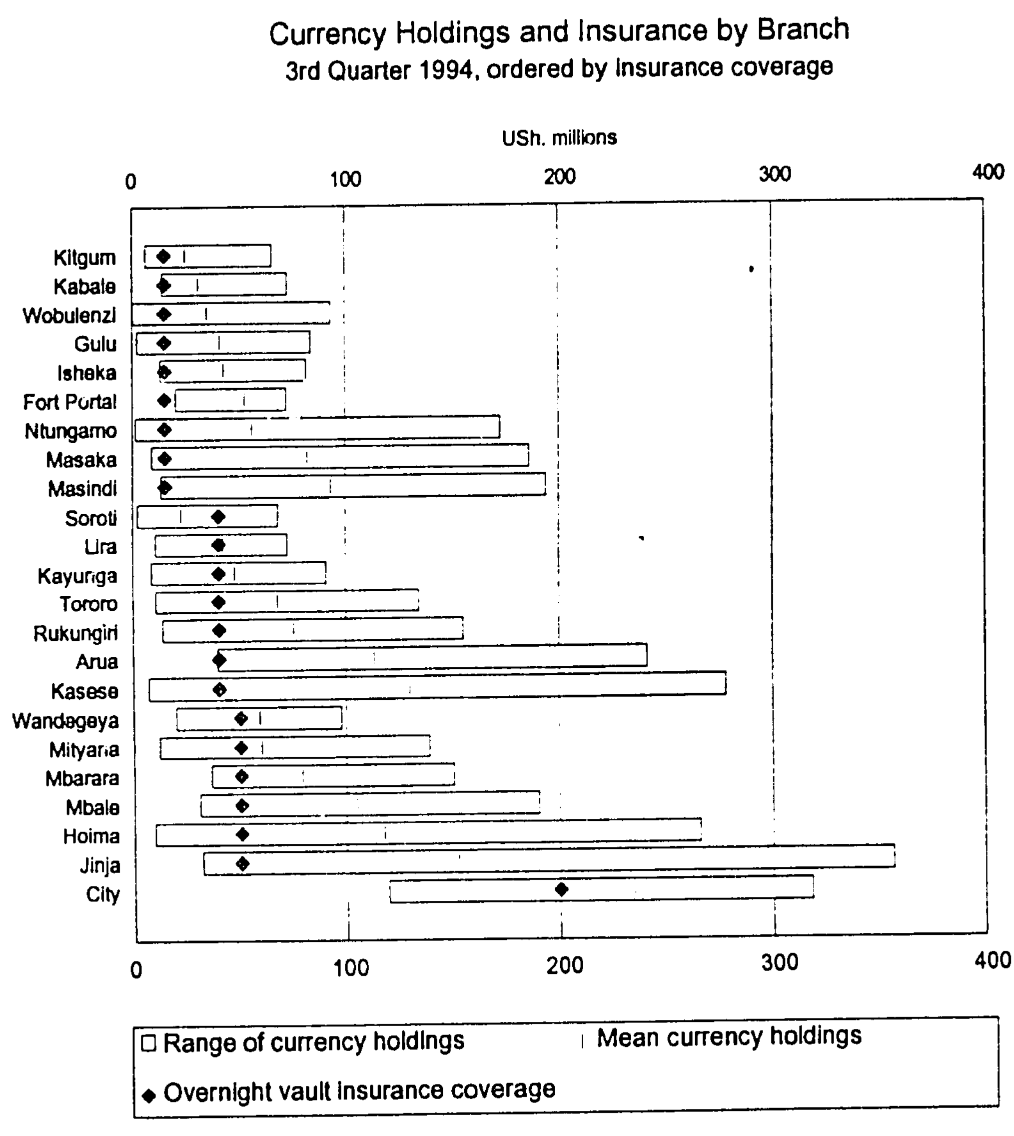
Appendix L

Branch Cash Handling Insurance: Charts



Appendix L (continued)

Branch Cash Handling Insurance: Charts (continued)



Source: Weekly statements of liquidity. Data as of close of business each Friday.

Appendix M

Branch Cash Handling Insurance: Detail Data

Branch Cash Balances and Insurance Coverage
3rd Quarter 1994 (in USh. thousands)

Branch	Mean Currency Balance	High Currency Balance	Overnight Vault coverage	Office hours coverage	
				Tills	Vault
City	234,463	318,513	200,000	50,000	50,000
Jinja	152,948	357,190	50,000	40,000	20,000
Hoima	117,845	265,591	50,000	40,000	20,000
Mbale	104,824	190,202	50,000	40,000	20,000
Mbarara	78,960	150,991	50,000	40,000	20,000
Mityana	59,992	139,477	50,000	40,000	20,000
Wandegeya	58,957	97,866	50,000	40,000	20,000
Kasese	130,085	277,700	40,000	20,000	35,000
Arua	113,254	240,612	40,000	20,000	35,000
Rukungiri	74,982	155,507	40,000	20,000	35,000
Tororo	67,479	134,584	40,000	20,000	35,000
Kayunga	47,534	90,563	40,000	20,000	35,000
Lira	41,941	72,029	40,000	20,000	35,000
Soroti	22,322	67,754	40,000	20,000	35,000
Masindi	92,905	193,844	15,000	20,000	15,000
Masaka	81,839	186,100	15,000	20,000	15,000
Ntungamo	55,898	172,865	15,000	20,000	15,000
Fort Portal	52,422	71,878	15,000	20,000	15,000
Ishaka	42,709	81,158	15,000	20,000	15,000
Gulu	40,930	83,360	15,000	20,000	15,000
Wobulenzi	34,754	93,261	15,000	20,000	15,000
Kabale	30,998	72,368	15,000	20,000	15,000
Kitgum	24,640	65,499	15,000	20,000	15,000

Source: Weekly statements of liquidity. Data as of close of business each Friday.

Appendix M (continued)

Branch Cash Handling Insurance: Detail Data (continued)

Currency Purchases and Insurance Coverage
3rd Quarter 1994 (in USh. thousands)

Currency Center	Branch	Date	Currency Purchased	Transit Insurance: Transit Event	Transit Insurance: Annual Transits
Masaka	Masaka	07-Jul-94	200,000	20,000	80,000
Masaka	Masaka	25-Jul-94	150,000	20,000	80,000
Masaka	Masaka	01-Aug-94	100,000	20,000	80,000
Masaka	Masaka	10-Aug-94	100,000	20,000	80,000
Masaka	Masaka	16-Aug-94	100,000	20,000	80,000
Masaka	Masaka	29-Aug-94	100,000	20,000	80,000
Masaka	Masaka	29-Aug-94	100,000	20,000	80,000
Masaka	Masaka	30-Aug-94	300,000	20,000	80,000
Masaka	Masaka	09-Sep-94	200,000	20,000	80,000
Mbale	Mbale	13-Sep-94	200,000	60,000	200,000
Mbarara	Ishaka	04-Aug-94	100,000	20,000	80,000
Mbarara	Ishaka	15-Aug-94	100,000	20,000	80,000
Mbarara	Ishaka	19-Aug-94	150,000	20,000	80,000
Mbarara	Ishaka	26-Aug-94	100,000	20,000	80,000
Mbarara	Kasese	08-Jul-94	200,000	30,000	100,000
Mbarara	Kasese	16-Aug-94	200,000	30,000	100,000
Mbarara	Kasese	24-Aug-94	200,000	30,000	100,000
Mbarara	Kasese	19-Sep-94	150,000	30,000	100,000
Mbarara	Mbarara	29-Jul-94	100,000	60,000	200,000
Mbarara	Ntungamo	22-Jul-94	100,000	20,000	80,000
Mbarara	Ntungamo	10-Aug-94	100,000	20,000	80,000
Mbarara	Ntungamo	16-Aug-94	100,000	20,000	80,000
Mbarara	Ntungamo	22-Aug-94	250,000	20,000	80,000
Mbarara	Ntungamo	25-Aug-94	150,000	20,000	80,000
Mbarara	Ntungamo	07-Sep-94	150,000	20,000	80,000
Mbarara	Ntungamo	13-Sep-94	100,000	20,000	80,000
Mbarara	Ntungamo	19-Sep-94	100,000	20,000	80,000
Mbarara	Ntungamo	29-Sep-94	150,000	20,000	80,000
Mbarara	Rukungiri	04-Jul-94	100,000	30,000	100,000
Mbarara	Rukungiri	11-Jul-94	100,000	30,000	100,000
Mbarara	Rukungiri	30-Aug-94	100,000	30,000	100,000

Source: Copies of orders to BOU for telegrahic transfer of funds to currency centers for branch pick-up.

Appendix N

Proposed Liquidity Policy

For Approval by the Board of Directors

Policy Statement

1. Liquidity is the ability of the Bank to raise cash at a reasonable cost. We will at all times maintain sufficient sources of liquid funds to meet cash withdrawal requirements, to fulfill short-term borrowing obligations, to fund lines and letters of credit, and to pay our employees and vendors. At the same time, and subject to Bank operational and regulatory requirements, we will minimize the funds invested in non-earning currency, central bank, and nostro balances.

Policy Implementation

2. The Executive Management Committee (EMC) is responsible for the implementation of this policy. The EMC will meet each Monday and will:

a. review an analysis of the Bank's current and projected liquidity position;

b. forecast events affecting liquidity during the succeeding week;

c. direct the specific actions to be taken (within limits set by the EMC) during the week, including the purchase or sale of securities and lending to or borrowing from banks or the BOU; and

d. take up other matters relevant to the management of the Bank's liquid funds.

3. The EMC will record and maintain minutes of its deliberations and decisions relating to matters covered by this policy.

Regulatory Cash Reserve and Liquidity Ratio Requirements

4. We will always comply with the two Bank of Uganda (BOU) regulations relevant to liquid funds management:

a. Cash Reserve Requirement (CRR): Balances equal to the sum of 8% of demand and 7% of time deposits must be kept in BOU accounts and in currency (which is eligible only at 30% of actual balances); and

b. Liquidity Ratio Requirement (LRR): Balances equal to the sum of 20% of demand and 15% of time deposits must be kept in BOU accounts, currency, demand balances at other banks, and qualifying short-term liquid instruments.

5. In order to ensure compliance, the EMC each week will review an analysis of recent activity affecting the liquid asset position and a forecast for the near and intermediate future. The targets for key ratios are:

		Low	Mid	High
a.	BOU balances as a percent of CRR:	110%	120%	130%
b.	LRR assets as a percent of LRR:	100%	125%	150%

Sources of Liquid Funds

6. We will utilize the following sources of funds in order to ensure sufficient liquidity for the Bank's operations and compliance:

a. Balances with the BOU. Balances with the BOU that exceed the CRR target and clearing projections are available for lending and for investment in interest-bearing LRR-eligible instruments.

b. Deposit mobilization. When a need for cash can be forecast, deposit marketing efforts will be increased, opening new accounts as well as drawing in additional funds from existing depositors.

c. Interbank borrowing. The Bank will borrow required funds from other banks. If required to effect these borrowings, the EMC is authorized to offer securities from the Bank's investment portfolio as collateral.

d. Liquidation of net long foreign exchange positions. The EMC may direct the liquidation of some or all net long foreign exchange positions and conversion of the proceeds into local currency in order to meet CRR needs.

e. Basic borrowings from the BOU. The EMC is authorized to draw upon the basic borrowing facility of the BOU, and to offer securities from the investment portfolio as collateral, in order to meet CRR needs when attempts to borrow in the interbank market have been unsuccessful. Access to this facility is limited by the BOU to no more than 6 out of the last 13 CRR accounting periods.

f. Branch currency restriction. The EMC will place lower limits on the amount of currency that may be held at branches before surrender to BOU Currency Distribution Centers.

g. Seasonal borrowings from the BOU. The EMC may authorize use of the BOU's seasonal borrowing facility upon documentation sufficient to demonstrate to the BOU the Bank's qualification for this facility.

h. Investment securities sales. The EMC may direct the sale of investment securities prior to maturity. The decision to sell securities, rather than to use them as collateral for borrowings, will be based upon the Bank's need to hold cash in preference to securities to meet CRR and LRR as forecast during the time to the maturity of the instrument earmarked for sale.

i. BOU supplemental borrowing facility. The EMC may determine that use of this facility is necessary to fund cash needs for up to three months. As use of this facility will place the Bank under BOU surveillance, the Board, at its next meeting, must be notified by the Managing Director that such borrowing is intended or has taken place.

j. Other measures. Should we continue to experience illiquidity after the above measures have been taken, we will:

   i. first, curtail, then cease, origination of loans to new customers;
   ii. second, curtail funding advances to existing customers; and
   iii. finally, negotiate resolution of the difficulty with the BOU.

Uses of Liquid Funds

7. Liquid funds available after meeting forecast CRR and LRR needs are to be utilized in a manner that will generate the highest prudent returns for the Bank. The primary uses of funds are:

a. Loans. The loan portfolio is the Bank's primary source of earnings. Funds that are available after forecast liquidity requirements have been met will be directed toward loan portfolio growth.

b. Investments. The Bank will maintain an investment portfolio of Uganda government securities issued with a maturity of 273 days or less. The primary purpose of the portfolio is to permit the Bank to earn a reasonable return on its holding of liquid assets required for LRR compliance, but in excess of CRR requirements. Investment securities may be pledged as collateral for advances from other banks and from the BOU.

c. Interbank placements. The Bank will place funds with other banks on an overnight or short-term basis. All banks with which the Bank places funds must have been previously approved for credit by the EMC.

d. BOU and nostro accounts. The Bank will maintain BOU balances consistent with minimum CRR and clearing needs. Investment opportunities will be sought for nostro account balances in excess of minimum analysis balance requirements.

e. Currency. Currency holdings at branches will be closely monitored. The EMC will set maximum currency limits for each branch.

Reports to the Board of Directors

8. At least quarterly, the Managing Director will provide to the Board of Directors a report that includes the following items:

a. Quarterly status of CRR and LRR compliance.

b. Quarterly status of the investment portfolio, including:

i. composition by security type and maturity;
ii. yield by security type and maturity;
iii. purchases, sales and maturities during the quarter; and
iv. securities pledged as collateral for BOU or interbank advances.

c. Borrowings during the quarter from the BOU, including type of facility, amounts drawn, rates, and number of days outstanding.

d. A forecast of the Bank's liquidity position for the succeeding quarter.

e. A discussion and analysis of any material items affecting the Bank's liquidity during the quarter or forecast for the succeeding quarter.

Annual Review by the Board of Directors

9. At least annually, the Board of Directors will review this policy and management's performance in handling the liquid asset position of the Bank.

References

10. This policy has been approved in order that the Bank may comply with the following laws and regulations:

Legislative Reference:	Financial Institutions Statute, 1993. Section 16.
BOU Regulatory Reference:	Prudential Requirements and Aspects of Bank Liquidity, effective 31 December 1993.

Appendix O

Treasury Department

Proposed Mission Statement

Purpose

The primary mission of the Treasury Department is to monitor and to control the liquidity position of the bank so as to ensure that liquid funds are available at all times sufficient: (a) to meet regulatory reserve and liquidity requirements; (b) to satisfy existing disbursement commitments, including customer withdrawals; and (c) to meet new lending commitments.

Organization

The department reports to the General Manager, Operations. The department supports the decisions of the Executive Management Committee (EMC).

Staffing

The department is staffed by two persons:

1. Head, Treasury Department
2. Treasury Assistant

Functions

The Treasury Department will carry out the following functions:

Regulatory Reporting

Prepare weekly statement of liquidity.

Internal Reporting

Prepare weekly EMC reports on the sources and uses of funds..
Prepare liquidity forecasts as requested by management.
Prepare quarterly reports for the Board of Directors.

Investments and Interbank Placements

Invest surplus funds for maximum income, within maturity and credit risk parameters set by the EMC.
Account for investments and interbank placements.

Appendix O (continued)

Funds Acquisitions

Borrow funds in the interbank market.
Monitor administered funds and other non-deposit liabilities.
Control Bank of Uganda borrowings.

Operations

Control currency balances at branches.
Control deposit balances at the Bank of Uganda.
Monitor nostro bank balances.
Analyze individual customer accounts for profitability, especially utilization of uncollected funds and costs of services provided.

Management Analysis

Analyze monthly changes in interest income and expense.
Analyze monthly changes in asset and liability balances and flow of funds.
Analyze the impact on earnings, capital and liquidity of proposed strategies.
Prepare maturity forecasts of loans and deposits.
Propose, for EMC approval, maturity and credit risk parameters for investments and interbank lending activities.

Appendix P

Treasury Department

First-year Work Plan

1 November 1994 through 31 December 1995

Background

The Treasury Department is a new organizational component of the Cooperative Bank, Limited. The department has been established with the initial primary mission of ensuring that the Bank's liquidity position remains within prudent commercial banking practice. From this initial narrow focus, the department is expected to mature into an analytical and forecasting center, serving the technical and analytical needs of other Bank departments. Eventually, the department is expected to be the prime source for asset and liability management information and execution.

Goals

First year goals are set to ensure that (1) the primary mission of the department, liquidity management, is carried out; (2) the department is established as a credible resource for management information; (3) the activities of the department may be carried out by existing staff from the Bank; and (4) a clear path toward a mature treasury and asset-liability management function is established.

In broad terms, the first year tasks are summarized as follows:

1994:
- Establish and staff the department.
- Establish the investment portfolio.
- Approve liquidity policy.

1995:
- Control the BOU account daily position.
- Control branch currency balances.
- Manage the investment portfolio.
- Establish and manage the interbank money market function.
- Report liquidity positions and forecasts to management.
- Report regulatory reserve and liquidity position to the BOU.
- Evaluate department progress and determine 1996 work plan.

Appendix P (continued)

Treasury Department

Work Plan Milestones

31 December 1994	Approve department mission, staffing, and work plan. Initiate weekly EMC liquidity reporting and meeting. Initiate weekly bidding at treasury bill auctions. Present liquidity policy to Board of Directors for approval.
31 January 1995	Take responsibility for weekly statement of liquidity reporting. Meet with all commercial banks regarding interbank market proposals. Set standards for bank credit files. Solicit applications and open credit files on candidate borrowers.
28 February	All department staff complete any personal computer training that may be required. Approve draft standard interbank lending and repurchase agreements and related documents. Complete credit files on proposed borrower banks.
31 March	Set credit limits and terms for interbank lending and approve list of qualified borrower banks.
30 April	Start active participation as a lender to approved borrowers in the interbank market. Present first quarterly liquidity report to the board.
30 June	Evaluate interbank and investment activities to date. Modify programs as appropriate. Evaluate Treasury Department activities to date. Modify mission statement, job descriptions, and work plan.
31 July	Present quarterly liquidity report to the board.
30 September	Evaluate Treasury Department activities to date.
31 October	Present quarterly liquidity report to the board.
31 December 1995	Evaluate Treasury Department activities to date. Approve 1996 Treasury Department work plan. Propose liquidity policy revisions to the board for approval.

Appendix Q

Treasury Department

Job Description: Head, Treasury Department

Purpose: The incumbent is responsible for carrying out the mission of the Treasury Department. The department's initial focus will be the maintenance of the Bank's liquidity position within the guidelines set by management and the forecasting of the Bank's future liquidity position. The incumbent is responsible for establishing the Treasury Department as a credible source of data and analysis regarding the present and short-term position of the Bank.

Reports to: General Manager, Operations.
Executive Management Committee (EMC) provides additional guidance.

Supervises: Treasury Assistant.

Background: Knowledge of the bank's general ledger system.
Knowledge of clearing house operations.
Knowledge of regulatory requirements.
University education in finance and/or accounting.
Skilled in computer spreadsheet applications.
Background in accounting and bank operations.

Duties:

Regulatory reporting

1. Prepare and submit to BOU the weekly statement of liquidity.

Currency balance control

2. Control the Bank's currency balances.
    a. Monitor the daily position of all branch currency and transit accounts.
    b. Review and approve branch currency purchase requests.
    c. Prepare and submit to BOU authorizations to disburse currency to branches through BOU Currency Centers.
    d. Prepare, review and revise branch currency limits and insurance coverage.

Bank balance control

3. Monitor the daily position of all bank accounts.
4. Monitor daily transactions in and the balances of the BOU clearing/reserve account.

Internal reporting and analysis

5. Weekly, prepare liquidity forecasts for the EMC.

6. Monthly, prepare interest income and expense variation analyses.
7. As needed, analyze individual customer accounts for utilization of uncollected funds and profitability.
8. Record and maintain permanent minutes of EMC deliberations regarding treasury activities.

Investment and borrowing

9. Propose, for EMC approval, suitable investment options for surplus funds, with due regard to future liquidity requirements.
10. Prepare bids for government securities under the guidelines set by the EMC.
11. Execute investment purchase and sale transactions as guided by the EMC.
12. Negotiate interbank lending and borrowing agreements. Prepare relevant proposals for the approval of the EMC.
13. Execute interbank advances and borrowings as authorized by the EMC under existing credit agreements.
14. Order transfers of funds from the bank's BOU accounts to the BOU accounts of other banks in fulfillment of authorized lending commitments and upon maturity of the bank's interbank borrowings.

Accounting

15. Maintain ledgers of investments, interbank advances and borrowings, and related assets and liabilities.

Supervision

16. Supervise the activities of the Treasury Assistant.
17. Supervise the training and development of the Treasury Assistant.

Asset-Liability Management

18. Develop the role of the Treasury Department into a source for asset and liability management information.
19. Attend conferences, seminars, training courses, etc. that will aid in the development of the incumbent in the treasury field.

Appendix R

Treasury Department

Job Description: Treasury Assistant

Purpose: The incumbent provides technical and clerical support to the Head, Treasury Department.

Reports to: Head, Treasury Department

Background: Knowledge of bank's general ledger system.
Skilled in computer spreadsheet applications.
Background in an accounting or bank operations environment.

Duties:

Regulatory Reporting

1. Prepare the weekly statement of liquidity from branch and other data, and submit for approval to the department head.

Currency balance control

2. Research branch currency purchase requests.
3. Prepare and submit for approval to the department head telegraphic transfer authorizations to provide currency to branches through BOU Currency Distribution Centers.
4. Prepare, review and revise branch cash limits for approval of the department head.

Bank balance control

5. Monitor daily transactions in and the balances of the BOU accounts.
6. Prepare daily summary of nostro, cash and transit positions.
7. Prepare daily summary forecast of nostro, cash and transit positions.
8. Research large item changes in daily position.

Internal reporting

9. Weekly, assist the department head in the preparation of liquidity reports and supplemental materials for use by the EMC.
10. Assist the department head in the preparation of other periodic or ad hoc reports regarding treasury-related matters.

Accounting

11. Maintain ledgers of investments. Perform accounting for investment purchases, sales, and interest accruals.
12. Maintain ledgers of interbank advances. Perform accounting for advances, maturities, and interest accruals.

13. Maintain ledgers of borrowings. Perform accounting for borrowings, liquidations, and interest accruals.

Analysis and Research

14. Analyze monthly interest income and expense variances.
15. Research and analyze other matters at the direction of the department head.

Appendix S

Proposed Weekly Liquid Funds Analysis Worksheet

Sample Blank Form

WEEKLY LIQUID FUNDS ANALYSIS WORKSHEET

AS OF Date

1. Actual LRR surplus of two Fridays ago			0
2. Adjustments:			
a. Less: BOU balance of two Fridays ago	0		
b. Less: Last Friday's investment portfolio	0		
c. Less: Last Friday's nostro account balances	0		
d. Add: Last Friday's BOU balance	0		0
3. Planned treasury operations:			
a. Less: Purchases of securities planned this week	0		
b. Less: Repayments of borrowings planned this week	0		
c. Add: Maturities/sales of securities this week	0		
d. Add: New borrowings from banks or BOU this week	0		
e. Add: Net forex sales (purchases)	0		0
4. Planned loan and deposit operations:			
a. Less: Committed loan fundings this week	0		
b. Less: Large deposit withdrawals this week	0		
c. Add: Loan payoffs this week	0		
d. Add: Large deposit intakes this week	0		0
5. Adjusted LRR surplus (sum of items 1. through 4.)			0
6. LRR surplus utilization factor			40%
7. First estimate of uncommitted funds available (None, if item 5. is negative)			0
8. Other factors affecting BOU balances			
a. Add: Net planned treasury operations (item 3.)			0
b. Add: Net planned loan/deposit operations (item 4.)			0
9. Last Friday's BOU balance (item 2.d.)			0
10. First estimate of next Friday's BOU balance			0
11. Target BOU balance			
a. Actual CRR of two Fridays ago	0		
b. CRR coverage ratio	110%		0
12. First estimated BOU balance surplus (deficit)			0
13. If the first estimated BOU balance is a deficit, then the following calculation is important:			
a. First estimated BOU balance deficit (item 12.)			0
b. Add: First estimate of uncommitted funds available (item 7.)			0
c. Estimated surplus (deficit) without use of uncommitted funds			0
14. The uncommitted funds available for lending and investment are:			**-- None --**
15. The funds that must be found from an outside source are:			**-- None --**

Appendix S (continued)

Proposed Weekly Liquid Funds Analysis Worksheet

Sample Filled-in Form

WEEKLY LIQUID FUNDS ANALYSIS WORKSHEET

AS OF | Date |

1. Actual LRR surplus of two Fridays ago		800
2. Adjustments:		
a. Less: BOU balance of two Fridays ago	(2,200)	
b. Less: Last Friday's investment portfolio	(600)	
c. Less: Last Friday's nostro account balances	(350)	
d. Add: Last Friday's BOU balance	2,700	(450)
3. Planned treasury operations:		
a. Less: Purchases of securities planned this week	(150)	
b. Less: Repayments of borrowings planned this week	0	
c. Add: Maturities/sales of securities this week	100	
d. Add: New borrowings from banks or BOU this week	0	
e. Add: Net forex sales (purchases)	0	(50)
4. Planned loan and deposit operations:		
a. Less: Committed loan fundings this week	(150)	
b. Less: Large deposit withdrawals this week	0	
c. Add: Loan payoffs this week	50	
d. Add: Large deposit intakes this week	200	100
5. Adjusted LRR surplus (sum of items 1. through 4.)		400
6. LRR surplus utilization factor		40%
7. **First estimate of uncommitted funds available (None, if item 5. is negative)**		160
8. Other factors affecting BOU balances		
a. Add: Net planned treasury operations (item 3.)		(50)
b. Add: Net planned loan/deposit operations (item 4.)		100
9. Last Friday's BOU balance (item 2.d.)		2,700
10. **First estimate of next Friday's BOU balance**		2,590
11. Target BOU balance		
a. Actual CRR of two Fridays ago	2,400	
b. CRR coverage ratio	110%	(2,640)
12. **First estimated BOU balance surplus (deficit)**		(50)
13. **If the first estimated BOU balance is a deficit, then the following calculation is important:**		
a. First estimated BOU balance deficit (item 12.)		(50)
b. Add: First estimate of uncommitted funds available (item 7.)		160
c. Estimated surplus (deficit) without use of uncommitted funds		110
14. **The uncommitted funds available for lending and investment are:**		**110**
15. **The funds that must be found from an outside source are:**		**-- None --**

Proposed Weekly Liquid Funds Analysis Worksheet

Instructions

Purpose:

The purpose of this worksheet is to determine, from the best available information, the amount of funds that will be available for lending or investment in the coming week. Actual data is used where possible, but management must make estimates regarding some activities. The ending funds availability figures represent funds available or needed, after planned items.

The worksheet builds in two safety factors. The **CRR Coverage Ratio** (item 11.b.) creates a floor target balance for the BOU accounts and is consistent with the Bank's liquidity policy. The **LRR surplus utilization factor** (item 6.) prevents all surplus liquidity from being classified as available for investment and lending purposes and provides a cushion for LRR compliance. As Bank management become adept in planning and forecasting loan and deposit operations (item 4.), the LRR surplus utilization factor should be increased, permitting more funds to be invested in short-term earning assets.

Operation of the worksheet:

1. Actual LRR surplus of two Fridays ago. This is the consolidated LRR surplus as reported on the weekly statements of liquidity. If data from all District Two branches is not yet available, estimates should be used to develop a consolidated total.

2. Adjustments. Adjustments to the reported LRR surplus are necessary in order to develop a figure that includes the most current information and is representative only of the cash funds component of the LRR surplus.

   a. The BOU balance used in the report of two Fridays ago is removed from the calculation. It will be replaced with the current balance at item 2.d.
   b. The value of the investment portfolio is removed. Although the portfolio is counted as a liquid asset, it does not represent cash funds available for new investment.
   c. The value of the nostro account balances is removed. The nostro accounts do not represent local currency funds available for new investment.
   d. The most recent BOU balance replaces the old balance removed at item 2.a.

3. Planned treasury and IBR operations. The available cash is adjusted for known or intended treasury and IBR transactions in the coming week.

   a. Purchases of securities reduce the surplus cash available.
   b. Repayments of interbank and BOU borrowings reduce cash available.
   c. Maturities and sales of securities during the coming week are added to the calculation as cash will be credited to the Bank's BOU account.
   d. New interbank and BOU borrowings will increase cash available.
   e. Net sales or purchases of foreign exchange will increase or decrease, respectively, the local currency funds available.

4. Planned loan and deposit operations. The available cash must be adjusted for large planned or committed loan and deposit activity.

Appendix S (continued)

Proposed Weekly Liquid Funds Analysis Worksheet

Instructions (continued)

5. Adjusted LRR surplus. This figure represents the total surplus available after adjusting the original LRR surplus figure for non-cash items, for the most current data on investments and BOU balances, and for the Bank's operational commitments planned in the coming week.

6. LRR surplus utilization factor. This safety factor prevents the Bank from over-committing liquid funds to investments and loans. A low factor will compensate for errors in the projection of loan and deposit activity at item 4. If the projections at item 4. are very representative of the total actual transactions, the utilization factor may be increased.

7. First estimate of uncommitted funds available. The first estimate is derived by the application of the LRR surplus utilization factor against the adjusted LRR surplus. If the adjusted LRR surplus is negative, there are no uncommitted funds available.

8. Other factors affecting the BOU balance. The effect of planned treasury, loan and deposit operations on the BOU balance are carried down to this line item.

9. Last Friday's BOU balance. The balance is carried down from item 2.d.

10. First estimate of next Friday's BOU balance. All the above projected data is summed to provide a first estimate of the future BOU balance, which is compared below to the target BOU balance.

11. Target BOU balance. The liquidity policy requires that BOU balances be maintained as a percentage of the CRR. As the Bank's actual CRR is unknown on any single day, the most recently reported CRR is used in the calculation.

    a. The actual consolidated Bank CRR reported in the weekly statement of liquidity of two Fridays ago is entered here.
    b. The CRR coverage ratio is fixed by the liquidity policy.

12. First estimated BOU balance surplus (deficit). The estimated BOU balance at item 10. is compared to the target BOU balance at item 11. A positive number indicates that the Bank is projected to comply with the liquidity policy target, after the effect of all transactions listed above. A negative number indicates that an adjustment to the proposed strategy will be necessary.

13. Further calculations are required if the first estimated BOU balance at item 12. is a deficit. If the BOU balance is a deficit, a determination must be made as to whether only a change in the utilization of the LRR surplus will be sufficient to bring the balance into compliance or if the LRR surplus will be unavailable this week and the Bank must seek funds from outside sources.

    a. The first estimated BOU deficit is carried down from item 12.
    b. The first estimate of uncommitted funds is carried down from item 7.
    c. Items 13.a. and 13.b. are summed.

Appendix S (continued)

Proposed Weekly Liquid Funds Analysis Worksheet

Instructions (continued)

If item 13.c. is negative, then no funds, other than for planned items (items 3. and 4.), are available for lending or investment. If item 13.c. is positive, this amount is the revised estimate of available funds and is the amount available for lending or investment reported at item 14.

14. The uncommitted funds available for lending and investment. This line reports the first estimate of available funds at item 7. (if the first estimated BOU surplus is positive), the revised estimate of available funds at item 13.c. (if the revised estimate is positive), or "None" (if the revised estimate is negative).

15. The funds that must be found from an outside source. If the estimated surplus (deficit) without use of uncommitted funds at line 13.c. is negative, that amount is reported here as a positive number. The amount represents additional funding that will be required to be found in order to meet the target BOU balance.

Appendix T

Test of the Weekly Liquid Funds Analysis Model

The use of the proposed weekly liquid funds analysis worksheet (Appendix S) was tested using third quarter 1994 data from the weekly statements of liquidity (Appendix F). The results of the test are shown in the pages following.

Use of the model was assumed to start on Monday of the reserve accounting week ending July 15. A date later than July 1 was selected because the best information regarding the Bank's deposits (and regulatory liquidity position) is lagged over one week from the actual cut-off date. Substantially all information as of Friday, July 1 should have been available at the head office by Monday, July 11 for preparation of the District Two weekly statement of liquidity, which was due to the BOU by Thursday, July 14 (the District One return had already been submitted on Thursday, July 7).

Although unrealistic as a one-week event, the Bank was assumed to purchase USh. 1 billion of government treasury bills at the beginning of the period. This transaction in the model, however, has the effect of soaking up a substantial portion of the available liquidity and, so, assists in validating the model. The purchase of such an amount of treasury bills is valid objective of the Bank but purchases should be staggered so that the maturities are not bunched, causing the Bank again to become overly liquid in a future period.

Two rules guide the model: (1) the BOU balance target is 110% of the last computed CRR and (2) 40% of the projected surplus LRR assets are earmarked for lending, if such lending would not impair compliance with the first rule. In order that a reasonable starting point, reflecting actual lending opportunities, could be established for the model, only 20% (rather than 40%) of the projected LRR surplus is freed as available for lending during the first three weeks.

Although the weekly liquid funds analysis worksheet includes a section for management projections of loan and deposit data, the model includes no such projections, and assumes that all actual activity in the BOU account (other than treasury-related securities purchases and borrowings) is unpredictable.

Part A of the following schedules summarizes how the weekly work sheets would have guided management decisions. Part B analyzes the effects of having followed the worksheet guidance, given the actual events of the period (e.g., actual deposit changes, branch cash changes, and BOU balance fluctuations that are exhibited at Appendix F), plus the effects of the new decisions to invest in securities and to permit more advances.

Test of the Weekly Liquid Funds Analysis Model (continued)

The model indicates that use of the weekly liquid funds analysis worksheet would have resulted in USh. 1 billion new investment in treasury bills and USh. 1.735 billion in new advances. Assuming that the average treasury bill rate is 8% and that the average rate on new advances is 16%, the Bank could be generating additional interest income of over USh. 350 million per year from active treasury management, without additional costs, while maintaining compliance with both CRR and LRR regulations.

It is important to note that, in one week, the Bank would have had to borrow funds in order to maintain compliance with the CRR and the LRR because unusually high debit activity flowed through the BOU account when several new loans were funded (the week ending September 23). In a real situation, this activity could have been predicted by management and, thus, would have been included in the loan and deposit projection section of the weekly worksheet, and the effect on the BOU balances analyzed prior to the event. With a large portfolio of treasury bills on hand to offer as collateral, an advance, which would have been outstanding for only one week, could easily have been secured from either interbank sources or the BOU.

PROJECTION OF EFFECTS OF USING THE WEEKLY LIQUID FUNDS ANALYSIS MODEL

With a rule of lending a 40% of projected surplus LRR, subject to maintenance of BOU balances at 110% CRR

Date:	15.07	22.07	29.07	5.08
PART A: Funds deployment decisions made using the Liquid Funds Analysis Worksheet				
LRR surplus of two weeks ago, adjusted to last week's investment portfolio & BOU balance	2,994,816	2,329,359	1,255,094	37,962
Less: purchases, sales, and repos of liquid instruments	1,000,000			
Adjusted LRR surplus	1,994,816	2,329,359	1,255,094	37,962
Funds available for lending (percent of adjusted LRR surplus)	398,963	465,872	251,019	15,185
Projected BOU balance	3,862,657	2,863,487	2,520,626	1,987,994
Floor BOU balance at a percent of 2-week prior CRR	1,689,170	1,549,321	1,610,744	1,593,281
Are sufficient funds available? Must lending be adjusted? Are funds required?	Sufficent funds	Sufficent funds	Sufficent funds	Sufficent funds
Permitted advances	398,963	465,872	251,019	15,185
Part B: The position that would have resulted, given actual BOU activity				
Actual increase (decrease) in BOU balances during the week	(533,298)	(91,842)	(517,447)	(189,612)
Ending BOU balance would have been	3,329,359	2,771,645	2,003,179	1,798,382
Ending investment portfolio balance would have been	1,000,000	1,000,000	1,000,000	1,000,000
Total CRR assets	3,884,672	3,162,636	2,479,997	2,356,404
CRR Surplus (available for investment in liquid instruments)	2,420,359	1,714,199	967,948	815,915
Total LRR assets	6,254,054	5,206,997	4,678,407	4,746,514
LLR Surplus (for consideration in next week's analysis)	2,812,808	1,806,428	1,136,447	1,132,573
CRR assets as a percent of requirements	265%	218%	164%	153%
LRR assets as a percent of requirements	182%	153%	132%	131%

PROJECTION OF EFFECTS OF USING THE WEEKLY LIQUID FUNDS ANALYSIS MODEL

**With a rule of lending a 40% of projected surplus LRR,
subject to maintenance of BOU balances at 110% CRR**

Date:	12.08	19.08	26.08	2.09
PART A: Funds deployment decisions made using the Liquid Funds Analysis Worksheet				
LRR surplus of two weeks ago, adjusted to last week's investment portfolio & BOU balance	(68,350)	689,298	690,907	129,662
Less: purchases, sales, and repos of liquid instruments				
Adjusted LRR surplus	0	689,298	690,907	129,662
Funds available for lending (percent of adjusted LRR surplus)	0	275,719	276,363	51,865
Projected BOU balance	1,798,382	2,079,388	2,311,641	2,147,007
Floor BOU balance at a percent of 2-week prior CRR	1,663,254	1,694,538	1,744,119	1,718,203
Are sufficient funds available? Must lending be adjusted? Are funds required?	Sufficent funds	Sufficent funds	Sufficent funds	Sufficent funds
Permitted advances	0	275,719	276,363	51,865
Part B: The position that would have resulted, given actual BOU activity				
Actual increase (decrease) in BOU balances during the week	556,725	508,616	(112,769)	(1,120,770)
Ending BOU balance would have been	2,355,107	2,588,004	2,198,872	1,026,237
Ending investment portfolio balance would have been	1,000,000	1,000,000	1,000,000	1,000,000
Total CRR assets	2,876,817	3,034,141	2,678,245	1,689,502
CRR Surplus (available for investment in liquid instruments)	1,291,254	1,472,136	1,099,715	124,733
Total LRR assets	5,189,994	5,182,387	4,905,077	4,382,226
LLR Surplus (for consideration in next week's analysis)	1,458,010	1,518,794	1,200,216	715,893
CRR assets as a percent of requirements	181%	194%	170%	108%
LRR assets as a percent of requirements	139%	141%	132%	120%

PROJECTION OF EFFECTS OF USING THE WEEKLY LIQUID FUNDS ANALYSIS MODEL

With a rule of lending a 40% of projected surplus LRR, subject to maintenance of BOU balances at 110% CRR

Date:	9.09	16.09	23.09	30.09
PART A: Funds deployment decisions made using the Liquid Funds Analysis Worksheet				
LRR surplus of two weeks ago, adjusted to last week's investment portfolio & BOU balance	(972,419)	(201,058)	(211,902)	(194,526)
Less: purchases, sales, and repos of liquid instruments			(350,000)	350,000
Adjusted LRR surplus	0	0	138,098	0
Funds available for lending (percent of adjusted LRR surplus)	0	0	55,239	0
Projected BOU balance	1,026,237	1,109,286	1,513,701	601,954
Floor BOU balance at a percent of 2-week prior CRR	1,736,383	1,721,246	1,780,543	1,716,205
Are sufficient funds available? Must lending be adjusted? Are funds required?	Funds needed	Funds needed	Adjust lending	Funds needed
Permitted advances	0	0	0	0
Part B: The position that would have resulted, given actual BOU activity				
Actual increase (decrease) in BOU balances during the week	83,049	109,654	(616,986)	1,359,101
Ending BOU balance would have been	1,109,286	1,218,940	951,954	1,961,055
Ending investment portfolio balance would have been	1,000,000	1,000,000	650,000	1,000,000
Total CRR assets	1,780,118	1,833,210	1,649,633	2,575,064
CRR Surplus (available for investment in liquid instruments)	161,443	273,024	13,705	936,989
Total LRR assets	4,471,346	4,363,435	4,039,228	5,110,456
LLR Surplus (for consideration in next week's analysis)	678,444	722,460	211,673	1,273,269
CRR assets as a percent of requirements	110%	117%	101%	157%
LRR assets as a percent of requirements	118%	120%	106%	133%