

## THE CREDIT UNION MANAGEMENT GAME

Playing The Credit Union Management Game consists of group participation in a series of exercises in financial decision making. Each team of players acts as the management of a simulated credit union and devotes its attention to making various decisions during a sequence of simulated time periods. In this way many years of operation can be simulated in a relatively short period of time, thereby giving participants a sense of cause and effect of their decisions.

Your team will be given reports from a hypothetical credit union. These reports include a Balance Sheet, Income and Expense Statement, Statement of Cash Position and Flow, Financial Industry and Credit Union Forecasts, and others. Using these reports, each team makes a set of decisions on such things as rates charged, rates paid, types of investments, and promotion expenses for the next six-month period. The decisions are then fed into a computer which evaluates them by use of a mathematical model and returns a new set of reports which summarize the results of the six-month period. Using the new reports, the decision-report sequence is repeated again.

Playing the game should be an interesting and valuable educational experience. The game is designed to:

1. provide top management decision-making experience.
2. help you develop an appreciation of how key financial and economic variables interact.
3. enhance your ability to use financial statements.
4. provide a risk-free environment for experimenting with alternative policies.

Before playing the game, your team will need to decide on objectives for your credit union. Do you want to make high profits, achieve a high loan-to-share ratio, offer low cost loans to members? These are important considerations because the decisions that your team makes while playing the game should be directed toward accomplishing your credit union's objectives. You will be expected to discuss the rationale for the decisions that your team makes during and after playing the game.

You may discover that the credit union that you are managing is in poor financial shape. View this as the reason that your team has been brought in to take over decision making for the credit union (we won't tell you what happened to the last management team). You will not be all alone in regards to your credit union's situation; all of the other credit unions in the game are in exactly the same financial condition. Even though all of the credit unions are identical at the start of game play, they are unlikely to remain that way for long. As the teams make different

decisions, the financial conditions of the credit unions will change. Will your team be able to accomplish its objectives better than the teams managing the other credit unions? While your decisions will not affect what happens to the other credit unions, you will undoubtedly feel a sense of competition. That's part of the fun of playing the game. A comparative, summary report for all teams playing the game will give you some idea of how your team is doing relative to the other teams.

In order to give you information about the decisions that have been made in the past for your credit union and about what has happened as a result of these decisions, you will be supplied with decisions and reports for Periods 1 and 2. Consequently, your first set of decisions will be for Period 3. It will probably take you some time to make your Period 3 decisions because of the time required to fully understand the game and your credit union's current situation. Your decisions for Period 3 will cover a six-month period. They will be entered into the computer and the model which underlies the game will calculate the consequences of your team's decisions. The output from Period 3 will provide the basis for Period 4 decisions. This process is repeated through the number of periods played.

The game does not reflect or duplicate the entire complexity or richness of credit union operations. To do so would remove most, if not all, of the educational value of the game to say nothing of the fun. Instead, to make the exercise meaningful, the game consists of a simplification of both the decisions which are made and the environment in which they are made. In this way the essential features of credit union financial management are stressed rather than the details.

Do not be surprised to discover economic conditions in the game which are different from normal. This is intentional for several reasons. First, no matter how hard one tried, it is not possible to present a situation which accurately describes all of the players' credit unions. Credit unions differ too much. Second, it needs to be emphasized that the decision-consequences sequence which you see when playing the game are highly unlikely to be the same as with your credit union back home. You are less likely to make a false assumption of transferability if the game's conditions are not familiar. And finally, because the conditions are different from normal, you will have to rethink cause and effect relationships. This is a valuable learning exercise.

The Players Manual provides you with virtually all of the information that you need to play The Credit Union Management Game. If you can't find the information that you need, ask your Instructor. Basically, playing the game is easy and fun. Described in the remainder of the Players Manual are the following:

- Credit Union Reports
- The Decision Sheet
- Example of Decisions and Reports

## **CREDIT UNION REPORTS**

Each set of decisions after being entered to the computer results in a set of reports. These reports provide information about the effectiveness of the decisions which were made for that period, and information which should be used in making decisions for the next period. A sample set of reports is included later in this manual. Each of the reports is discussed next.

### DECISIONS THIS PERIOD

The computer provides a listing of the decisions that your team made that resulted in the reports which were generated.

### THE BALANCE SHEET

The balance sheet presents the assets, liabilities, and additional financial information for your credit union.

### ASSETS

Cash represents funds on hand at the end of the period. Excess cash is automatically invested overnight in corporate central.

- The loans represent the dollar value of loans outstanding in each category at the end of the period.
- Government securities are valued at purchase cost plus interest earned at the end of the period.
- Investments in corporate central are equal to the amount invested plus interest earned at the end of the period.
- Short term funds in corporate central represent overnight funds invested in corporate central at the end of the period. All cash over 1% of shares is automatically invested in corporate central.
- Certificates of deposit held represent the purchase cost plus interest earned from the purchase of CD's from other financial institutions.
- Fixed assets cannot be altered by a decision by the credit union management. However, depreciation will reduce this account over time.

## LIABILITIES

- The notes payable account represents loans to the credit union from other financial institutions. This is a “catch-all” account. It can increase by overt decision or it can increase because of deficiencies in cash flow. No upper limit is placed on this account. The interest must, however, be paid at the end of each period.
- The shares held by members include any dividends paid at the beginning of the period plus the increase (or possibly decrease) in shares purchased during the period.
- The CD investment accounts represent the sum of member funds in CD’s at the beginning of the period, interest paid on CD’s during the period, and the increase (or possibly decrease) in CD’s purchased during the period.
- The IRA accounts represents the sum of member funds in IRA’s at the beginning of the period, interest paid on IRA’s during the period, and the increase (or possibly decrease) in IRA’s purchased during the period.
- The share draft accounts represents the sum of member funds in share drafts at the beginning of the period, dividends paid on share drafts during the period, and the increase (or possibly decrease) in shares purchased during the period.
- The undivided earnings represents those earnings available for dividends. It is calculated by taking the undivided earnings from the last period and adding the net income from the last period. Consequently, there is a one period lag from when earnings are realized and when they can be paid out in dividends.
- The net income this period is the net income for the period.

Additional financial information useful in decision making is also provided.

- The effective annual dividend rate this period is the dividend rate actually paid to members. For instance, if a decision to pay an annual dividend rate of 6% on shares was made but only enough funds to pay 5.5% was available, the effective annual dividend rate this period would be 5.5%.
- The ratio of notes payable to shares and undivided earnings indicates the relative debt position of the credit union. When this ratio reaches .25 the interest paid on notes payable doubles; when the ratio surpasses .50 the interest paid doubles again. For example, if the annual rate paid on notes is 5.0% (check the reports for the rate being paid by your credit union), then when debt increases to between 25% and 50% of shares plus undivided earnings the rate rises

to 10%. When the ratio exceeds 50% the rate jumps to 20%. Proper debt management is important. Keep an “eye” on this ratio.

- The ratio of loans to shares allows you to quickly judge how well your credit union is doing in providing loans to members.
- The ratio of expenses to income shows the percentage that expenses were to income. You have relatively little control over many expenses.
- The total interest received from loans this period shows how much interest was earned from loans.
- Allowances for delinquent loans are carried as a contra account to assets. The figures shown in the additional financial information show the actual amount of delinquent loans. Provisions for loan losses are set aside at the time that the loans are made. Loan delinquencies occur during the lifetime of the loan.

## THE INCOME AND EXPENSE STATEMENT

The income and expense statement allows you to evaluate the income, expenses, and profitability of your credit union.

- The interest on loans to members earned during the period depends on the rates charged in the current and previous periods and the ending balance in each category at the end of the last period as well as new loans made during the current period.
- The income from investments represents the interest earned from government securities, investments in corporate central, short term funds in corporate central, and certificates of deposits held.

## EXPENSES

- The dollar value of salaries is fixed for the duration of game play.
- Other expenses increase with new loans made during the period.
- The insurance expense is based on \$.65/\$1,000 of loan balance and shares outstanding.
- Provisions for loan losses is based on 10% of the “net income” for the period. The actual net income figure reflects the “net income” figure minus the provision for loan losses. If “net income” is negative, no provision for loan losses is made.
- Interest expense is the cost of interest paid on borrowed funds from other financial institutions, IRA’s, CD’s, and share drafts. Remember that the interest rate charged varies with the ratio of notes payable to shares and undivided earnings.

- Promotion expense includes expenditures made to increase both loan demand and/or deposits.
- Depreciation is a non-cash cost which reflects the sunk cost allocation of buildings, furniture, fixtures, and equipment.
- Net income this period is the result of income minus expenses. The expenses include provisions for loan losses.

## STATEMENT OF CASH POSITION AND FLOW

The statement of cash position and flow allows you to evaluate the credit union's cash inflows and outflows. The game requires that 1% of shares be maintained as a cash balance.

- Previous cash position indicates the amount of cash on hand at the end of the previous period of play.
- Cash inflow comes from a number of sources.
- The net increase in shares purchased by members is the difference in the value of new shares purchased by members and the value of shares withdrawn. This difference can be either positive or negative. A minus sign indicates that more shares were withdrawn than were purchased.
- A positive value for CD account deposits, IRA deposits, and share draft deposits indicates an increase in the value of these accounts. A minus sign shows an excess of withdrawals over additions.
- The values for personal loans, auto loans, open credit loans, real estate loans, and loans secured by shares represent the sum of loan repayments plus interest.
- New borrowings represent the cash inflow resulting from either of two causes: a decision by the management of the credit union or a cash position at the end of the period which falls below 1% of the shares outstanding. In the latter case, automatic borrowing takes place to bring the cash position up to this amount.
- Government securities sold and maturing during the period represents the market price of securities sold plus the dollar value of maturities which matured.
- Investments in corporate central withdrawn represents the value of funds withdrawn from corporate central.
- Short term funds in corporate central withdrawn is done automatically depending on the credit union's cash position.
- Maturing certificate of deposits held includes the purchase price of the maturing CD's plus interest earned.

- Cash outflows occur for several reasons.
- New loans made include new personal, auto, open credit, real estate, and loans secured by shares. They represent the interaction between decisions made by the management of the simulated credit union and the demand for loans.
- Cash is also used for repayment of loans, government securities purchased, new investments in corporate central, and certificates of deposit purchased. Excess cash at the end of the period is automatically placed into short term investments in corporate central.
- There are also expenses other than depreciation and allowances which are cash outflows.
- The new cash position is the result of the cash inflows minus the cash outflows. Because excess cash is automatically placed in short term investments in corporate central, this will always be 1% of shares.

## THE GOVERNMENT SECURITIES AND CD'S PORTFOLIO REPORT

The government securities and CD's portfolio report provides data necessary for decision making during the subsequent period of these credit union investments. The report provides a perfect forecast of rates for the next period.

- The maturity value of securities held is tabulated by date of maturity. This is the amount which will be received, in cash, if these securities are all allowed to mature.
- The market value of securities held is again tabulated by date of maturity. The first row, representing those which mature during the next period, are included at maturity value. They cannot be sold. The remainder are valued at current market prices for the particular date of maturity.
- The cost of securities held represents the purchased value of securities of the various maturities evaluated at the average purchase price.
- The last two columns, market price and annual yield, are data which can be used to determine which maturity of securities to purchase during the next period. The market price column represents the price which must be paid to purchase \$1 of government securities. The annual yield is the rate of yield that would be obtained if a security of that maturity date were purchased and held to maturity.
- The maturity value of CD investments held is tabulated by date of maturity. This is the amount of cash which will be received if the CD's are allowed to mature.
- The cost of CD's is again tabulated by date of maturity. This is the amount originally paid for the CD's.

- The interest rate is the rate which can be earned or is being earned on CD's with various maturity dates.

#### FINANCIAL INDUSTRY AND CREDIT UNION FORECASTS REPORT

- The industry forecasts portion of the financial industry and credit union forecasts report represents a perfect forecast of the rates to be paid and to be charged by competing financial institutions during the next period. These are the rates that will prevail.
- The credit union forecasts portion of the report represents conditional predictions. The demand for loans will, in fact, be realized if the credit union uses the same interest rates and promotion expenditures as it did in the previous period. For example, if the annual rate charged on personal loans was 12% and promotion expenditures to increase demand were \$1,000 and if these decisions were not changed during the next period, the demand for new personal loans would be exactly that forecast. However, if the rate was dropped to 10%, the actual demand would be slightly more.
- The increase in shares will also be realized if the dividend rate paid and the promotion expenditure to increase shares are exactly the same as last period. If they are altered, the increase in shares will be something other than that forecast.
- The increase (or decrease) in CD account deposits, IRA accounts deposits, and share draft deposits will be realized if interest rates and the promotion expenditure to increase deposits are held constant from the previous period. Note that these represent net changes in the account totals. If more funds are rolled off than are (re)invested, then these will be negative.

#### FINANCIAL ANALYSIS REPORT

The financial analysis report provides 10 important statistics for your credit union. The statistics use variables which have been defined previously in the Players Manual. The statistics provide information as to how well your credit union is accomplishing its objectives.

#### COMPOSITE FINANCIAL ANALYSIS REPORT

The composite financial analysis report provides information on all of the credit unions playing the game. You can use the statistics to help evaluate your credit union's performance relative to the other credit unions. Keep in mind, however, statistics are just one input for evaluating performance. You need to be able to verbalize why your credit union is well managed.



## THE DECISION SHEET

Each period of play requires over 20 decisions for your credit union. These decisions directly affect the credit union for a 6-month period and have residual effects for much longer. All decisions are entered on a decision sheet which is illustrated on page 18 of this manual. The required entries to the decision sheet are described below.

- The credit union number is assigned to your credit union by your instructor. Do you have a more creative name for your credit union?
- The period number is the number of the next period of play. Your first set of decisions is for Period 3.
- New personal loans are made to members. The amount of loans made is limited by either demand or an explicit decision to limit the amount. The decision for new personal loans is the maximum amount that your credit union is willing to place in new loans during the next period. Keep in mind that what is specified may or may not be what you get. Demand may make it less. All personal loans are repaid in 24 monthly installments covering four simulated six-month periods. All loans are made at a uniform rate per month during the six-month period.
- The annual rate of new personal loans is also a decision variable. Because it affects the demand for loans, be sure to consider the rates charged by other financial institutions.
- New auto loans are made to members and are handled by the game in much the same way as new personal loans. The only difference is that new auto loans are made for 36 months and six simulated six-month periods. All loans are made at a uniform rate per month during the six-month period.
- The annual rate on new auto loans is a decision variable and should be set in light of your credit union's objectives and prevailing rates in the marketplace.
- Open ended credit includes programs such as credit cards. The amount of open ended credit is limited by either demand or an explicit decision to limit the amount. The decision for open ended credit is a ceiling on the amount extended. Open ended credit can be reduced by setting a lower ceiling. It cannot be reduced faster than normal repayment allows. The amount of open ended credit repaid each period is equal to 55% of the amount from the previous period minus delinquencies.
- The annual rate on open ended credit is a decision variable which influences the demand for this type of credit.

- New real estate loans are handled in a manner similar to new personal loans and new auto loans except that they are made for 120 months or 20 simulated six-month periods. All loans are made at a uniform rate per month during the six-month period.
- The annual rate on new real estate loans is a decision variable. The rate charged affects the demand for new real estate loans.
- All demand for loans covered by shares is satisfied. Hence, only the annual rate on loans covered by shares is a decision variable. The rate charged affects the demand for loans covered by shares. These loans are repaid over 18 months or 3 simulated six month periods.
- Funds can be invested in government securities. They are purchased at the beginning of the six-month period at a discount and interest accrues.
- The term to maturity of new government securities purchased must be specified. Only one term per period is allowed and is limited to 1, 2, 3, or 4 simulated six-month periods. Securities purchased during the subsequent period with a term to maturity of 1 will mature during the following period.
- Government securities can be sold. The amount sold is over and above that which matures during the period. Given the amount of securities to be sold, the game sells those closest to maturity first and proceeds to those farthest until either the amount specified is obtained or all securities are sold. All securities are sold at the beginning of the six-month period.
- Funds can be invested through corporate central or withdrawn. Investments have no maturity date. To withdraw funds, place a minus sign before the amount to be withdrawn.
- CD's can be purchased from other financial institutions. The purchase is assumed to take place at a uniform rate during the period. The CD's mature in two six-month periods and cannot be sold early.
- Funds can be borrowed from other financial institutions or repaid. Borrowed funds have no maturity date. To repay borrowed funds, place a minus sign before the amount to be repaid.
- The annual rate paid on CD's is a decision variable. The rate paid affects the demand. All demand for CD's is satisfied by the game. CD deposits can shrink if your credit union's rates are not competitive.
- The annual rate on IRA's affects their demand. Be sure to check the rate offered by other financial institutions. IRA deposits can shrink if your credit union's rates are not competitive.
- The annual dividend rate for shares is a decision variable. Shares can decrease if your credit union does not offer a competitive rate. The dividend is assumed to be credited to shareholders' accounts at the beginning of the period and is based on shares on record at the end of the previous period. If earnings are not available to pay the stated dividend, only the

amount available will be credited. The maximum amount that can be paid in dividends in any period is equal to undivided earnings from the last period plus the net income from the last period.

- The annual dividend rate for share drafts is another decision variable. It represents the interest paid on share draft accounts. Again, like IRA and CD accounts, if your rates are not competitive, share drafts accounts can shrink.
- An amount can be spent to increase deposits. These expenditures are used for promotional programs. Your team will have to judge how responsive deposits are to these expenditures.
- An amount can also be spent to increase loan demand. Your team will have to learn how the demand for loans is affected by the amount spent for promotional programs. Be careful, excessive amounts to increase loan demand will lead to increasing delinquency rates.

### EXAMPLE OF DECISIONS AND REPORTS

This section of the Players Manual provides an example of decisions and reports for Periods 1 and 2. They are identical to those for the credit union which your team will manage in all but possible one respect. Your credit union probably has a number which is different from that shown. All of the other numbers are exactly the same for your simulated credit union. These reports serve as the basis for your team's future decisions and should be carefully examined. Your Instructor will help you understand the decisions which have been made and the reports which resulted.

#### PERIOD 1 DECISIONS AND REPORTS

The previous management team considered their credit union's objectives, current situation, and environment and prepared the decision sheet shown in Figure 1. These decisions were entered to the computer and the set of Period 1 reports shown in Figure 2 were generated. Figure 2.1 echoes back the decisions which were entered to the computer. Always check to see that your Instructor entered the correct decisions. Figure 2.2 presents the Balance Sheet, Figure 2.3 the Income and Expense Statement, Figure 2.4 the Statement of Cash Position and Flow Figure, 2.5 the Government Securities and CD's Portfolio report, Figure 2.6 the Financial Industry and Credit Union Forecasts, and Figure 2.7 a Financial Analysis report of important statistics. Figure 2.8 presents a Composite Financial Analysis report of important statistics for all of the credit unions playing the game. This report allows you to see how your credit union is performing relative to other ones in the game. At this point in the game there are no differences in the statistics.

## PERIOD 2 DECISIONS AND REPORTS

Once again drawing on the credit union's objectives, current situation, and environment, a set of decisions were entered on the decision sheet shown in Figure 3. These decisions resulted in the output shown in Figure 4. At this point all of the credit unions are identical. This will change quickly, however, as different decisions are made by the credit union teams. Your team will soon begin working on its Period 3 decisions. Best of luck!

**Figure 1 Decision Sheet for Period 1**

**THE CREDIT UNION MANAGEMENT GAME  
DECISION SHEET**

1.	Credit union number	<u>1</u>
2.	Period number	<u>1</u>
LOAN DECISIONS		
3.	New personal loans (maximum amount)	<u>10,000,000</u>
4.	Annual rate on new personal loans	<u>9%</u>
5.	New auto loans (maximum amount)	<u>10,000,000</u>
6.	Annual rate on new auto loans	<u>12%</u>
7.	Open end credit (maximum amount)	<u>100,000</u>
8.	Annual rate on open end credit	<u>18%</u>
9.	New real estate loans (maximum amount)	<u>500,000</u>
10.	Annual rate on new real estate loans	<u>6%</u>
11.	Annual rate on loans covered by shares	<u>6%</u>
INVESTMENTS		
12.	Funds for new government securities	<u>2,000,000</u>
13.	Term to maturity of new government securities	<u>4</u>
14.	Amount of government securities to be sold	<u>0</u>
15.	Funds invested or withdrawn from corporate central (if withdrawals are desired, use a minus (-) sign)	<u>1,000,000</u>
16.	Funds for the purchase of CD's	<u>0</u>
LIABILITIES, DIVIDENDS AND PROMOTIONS		
17.	Funds borrowed or repaid to other financial institutions (if repayments are desired, use a minus (-) sign)	<u>0</u>
18.	Annual rate paid on CD's	<u>7.5%</u>
19.	Annual rate paid on IRA's	<u>8%</u>
20.	Annual dividend rate for shares	<u>5.5%</u>
21.	Annual dividend rate for share drafts	<u>5%</u>
22.	Amount spent to increase deposits	<u>5,000</u>
23.	Amount spent to increase loan demand	<u>10,000</u>

**Figure 2.1 A Listing of Period 1 Decisions**

DECISIONS THIS PERIOD

CREDIT UNION NUMBER	1
PERIOD NUMBER	1
NEW PERSONAL LOANS	10,000,000
ANNUAL RATE OF NEW PESONAL LOANS	9.0000
NEW AUTO LOANS	10,000,000
ANNUAL RATE ON NEW AUTO LOANS	12.0000
OPEN ENDED CREDIT	100,000
ANNUAL RATE ON OPEN ENDED CREDIT	18.0000
NEW REAL ETATE LOANS	500,000
ANNUAL RATE ON NEW REAL ESTATE LOANS	6.0000
ANNUAL RATE ON LOANS COVERED BY SHARES	6.0000
FUNDS FOR NEW GOV. SECURITIES	2,000,000
TERM TO MATURITY	4
SECURITIES TO BE SOLD	0
FUNDS INVESTED OR SOLD THRU CORPORATE CENTRAL C.D.'S PURCHASED	1,000,000 0
FUNDS BORROWED OR REPAYED	0
ANNUAL RATE ON C.D.'S	7.5000
ANNUAL RATE PAID ON I.R.A.'S	8.0000
ANNUAL DIVIDEND RATE FOR SHARES	5.5000
ANNUAL DIVIDEND RATE FOR SHARE DRAFTS	5.0000
AMOUNT TO INCREASE DEPOSITS	5,000
AMOUNT TO INCREASE LOAN DEMAND	10,000

**Figure 2.2 The Balance Sheet for Period 1**

CREDIT UNION NO. 1  
BALANCE SHEET

ASSETS		LIABILITIES	
CASH	93,638	NOTES PAYABLE	100,000
LOANS		SHARES	9,363,750
PERSONAL LOANS	2,194,101	C.D. INVESTMENT ACCOUNTS	156,578
AUTO LOANS	1,434,745	I.R.A. ACCOUNTS	134,440
OPEN CREDIT	100,000	SHARE DRAFT ACCOUNTS	17,181
REAL ESTATE LOANS	500,042	UNDIVIDED EARNINGS	99,750
LOANS SECURED BY SHARES	58,153	NET INCOME THIS PERIOD	197,011
(LESS) ALLOWANCE FOR LOAN LOSSES	471,890		
GOVERNMENT SECURITIES	2,078,499		
INVESTMENTS IN CORPORATE CENTRAL	1,638,500		
SHORT TERM FUNDS IN CORP CENTRAL	2,325,924		
CERTIFICATES OF DEPOSIT HELD	0		
FIXED ASSETS	117,000		
<b>TOTAL ASSETS</b>	<b>10,068,711</b>	<b>TOTAL LIABILITIES</b>	<b>10,068,710</b>

ADDITIONAL FINANCIAL INFORMATION

EFFECTIVE ANNUAL DIVIDEND RATE THIS PERIOD	5.5000
RATIO OF NOTES PAYABLE TO SHARES AND U.E.	0.0106
RATIO OF LOANS TO SHARES	0.4516
RATIO OF EXPENSES TO INCOME	0.5128
TOTAL INTEREST RECEIVED FROM LOANS THIS PERIOD	163,921
DELINQUENT LOANS	
PERSONAL	38,571
AUTO	20,408
OPEN CREDIT	2,041

**Figure 2.3 The Income and Expense Statement for Period 1**

CREDIT UNION NO. 1  
INCOME AND EXPENSE  
FOR PERIOD 1

INCOME		404,408
INTEREST ON LOANS TO MEMBERS		
PERSONAL LOANS	85,221	
AUTO LOANS	58,858	
OPEN CREDIT	8,325	
REAL ESTATE LOANS	10,418	
LOANS SECURED BY SHARES	1,100	
INCOME FROM INVESTMENTS		
GOVERNMENT SECURITIES	78,499	
INVESTMENTS IN CORPORATE CENTRAL	38,500	
SHORT TERM FUNDS IN CORP CENTRAL	123,488	
CERTIFICATES OF DEPOSIT HELD	0	
EXPENSES		207,397
SALARIES	75,000	
OTHER EXPENSE	40,034	
INSURANCE – LOANS AND SHARES	39,399	
PROVISIONS FOR LOAN LOSSES	21,890	
INTEREST EXPENSE		
INTEREST ON BORROWED MONEY	4,250	
INTEREST ON I.R.A. ACCOUNTS	4,440	
INTEREST ON C.D. ACCOUNTS	4,078	
INTEREST ON SHARE DRAFTS	306	
PROMOTION EXPENSE	15,000	
DEPRECIATION	3,000	
NET INCOME THIS PERIOD		197,011



**Figure 2.4 The Statement of Cash Position and Flow for Period 1**

CREDIT UNION NO. 1  
STATEMENT OF CASH POSITION AND FLOW  
FOR PERIOD 1

PREVIOUS CASH POSITION		91,000
CASH INFLOW		
NET INCREASE IN SHARES PURCHASED BY MEMBERS	13,500	
NET INCREASE IN DEPOSITS ACCOUNTS		
C.D. ACCOUNT DEPOSITS	87,500	
I.R.A. DEPOSITS	38,000	
SHARE DRAFT DEPOSITS	9,250	
LOAN REPAYMENTS – INCLUDING INTEREST		
PERSONAL LOANS	556,399	
AUTO LOANS	249,808	
OPEN CREDIT LOANS	53,034	
REAL ESTATE LOANS	25,146	
LOANS SECURED BY SHARES	21,197	
NEW BORROWINGS	0	
GOVERNMENT SECURITIES SOLD AND MATURING	101,010	
INVESTMENTS IN CORPORATE CENTRAL WITHDRAWN	0	
SHORT TERM FUNDS IN CORPORATE CENTRAL WITHDRAWN	5,474,166	
MATURING CERTIFICATE OF DEPOSITS HELD	0	
TOTAL CASH INFLOW		6,629,009
CASH OUTFLOW		
NEW LOANS MADE		
PERSONAL LOANS	1,928,571	
AUTO LOANS	1,020,408	
OPEN CREDIT LOANS	59,709	
REAL ESTATE LOANS	390,000	
LOANS SECURED BY SHARES	54,000	
REPAYMENT OF LOANS	0	
GOVERNMENT SECURITIES PURCHASED	2,000,000	
NEW INVESTMENTS IN CORPORATE CENTRAL	1,000,000	
SHORT TERM INVESTMENT IN CORP CENTRAL	0	
CERTIFICATES OF DEPOSIT PURCHASED	0	
EXPENSES – LESS NON-CASH EXPENSES	173,683	
TOTAL CASH OUTFLOW		6,626,372
NEW CASH POSITION		93,638

**Figure 2.5 The Government Securities and CD's Portfolio Report for Period 1**

CREDIT UNION NO. 1  
GOVERNMENT SECURITIES PORTFOLIO  
FOR PERIOD 2

ANNUAL MATURITY DATE YIELD	MATURITY VALUE SECURITIES HELD	MARKET VALUE SECURITIES HELD	COST SECURITIES HELD	MARKET PRICE	
NEXT PERIOD	0.	0.	0.		
NEXT PERIOD + 1	0.	0.	0.	0.95868	8.62019
NEXT PERIOD + 2	0.	0.	0.	0.92293	8.18317
NEXT PERIOD + 3	2,332,797.	2,078,499.	2,000,000.	0.89099	7.84476
NEXT PERIOD + 4				0.85734	7.84602
TOTAL	2,332,797.	2,078,499	2,000,000.		

C.D. INVESTMENTS HELD

MATURITY DATE	MATURITY VALUE	COST OF C.D.'S	INTEREST RATE
NEXT PERIOD	0.	0.	0.00
NEXT PERIOD + 1	0.	0.	9.00
TOTAL	0.	0.	

**Figure 2.6 The Financial Industry and Credit Union Forecasts for Period 2**

CREDIT UNION NO. 1  
 FINANCIAL INDUSTRY AND CREDIT UNION FORECASTS  
 FOR PERIOD 2  
 INDUSTRY FORECAST

ANNUAL RATES CHARGED BY BANKS	PERCENT RATES
PERSONAL LOANS	13.20
AUTO LOANS	13.20
OPEN CREDIT LOANS	18.00
REAL ESTATE LOANS	10.08
ANNUAL RATES OFFERED BY BANKS	
CERTIFICATES OF DEPOSIT	8.65
I.R.A.'S	9.20
DRAFT ACCOUNTS	5.25
PASSBOOK ACCOUNTS	7.00
ANNUAL RATE CHARGED ON LOANS FROM BANKS	8.50
ANNUAL RATE PAID ON CERTIFICATES OF DEPOSIT	9.30
ANNUAL RATE ON INVESTMENTS IN CORPORATE CENTRAL	
LONG TERM	7.00
SHORT TERM	5.00

CREDIT UNION FORECASTS

DEMAND FOR LOANS	FORECAST
PERSONAL	1,716,000
AUTO	1,230,000
OPEN CREDIT	149,500
REAL ESTATE	396,000
SHARE	57,600
INCREASE IN SHARES	67,500
INCREASE IN C.D. ACCOUNT DEPOSITS	84,500
INCREASE IN I.R.A. ACCOUNT DEPOSITS	21,300
INCREASE IN SHARE DRAFT DEPOSITS	15,001

**Figure 2.7 The Financial Analysis Report for Period 1**

CREDIT UNION NO. 1  
FINANCIAL ANALYSIS  
FOR PERIOD 1

LOANS/SHARES	0.4516
NOTES PAYABLE/SHARES & U.E.	0.0106
NET INCOME FOR THIS PERIOD	197,011
EFFECTIVE ANNUAL DIVIDEND PAID	5.5000
% NET INCOME & UNDIVID. EARNS. & RESERVES/TOTAL ASSETS	0.0763
DELINQUENT P, A, AND OC LOANS/TOTAL P, A, AND OC LOANS	0.0164
ACCUMULATED NET INCOME	197,011
RESERVES FOR BAD LOANS – DELINQUENT LOANS	410,870
TOTAL OF PERSONAL & AUTO & MORTGAGE LOANS	4,128,888
TOTAL CASH	93,638

## Figure 2.8 The Composite Financial Analysis Report

### COMPOSITE FINANCIAL ANALYSIS

#### FOR PERIOD 1

UNION	1	2	3	4	5	6	7	8	9	10
1	0.4516	0.0106	197,011	5.5000	0.0763	0.0164	197,011	410,870	4,128,888	93,638

1. # LOANS/SHARES
2. # NOTES PAYABLE/SHARES & U.E.
3. # NET INCOME FOR THIS PERIOD
4. # EFFECTIVE ANNUAL DIVIDEND RATE PAID
5. # % NET INCOME & UNDIVID. EARNINGS & RESERVES/TOTAL ASSETS
6. # DELINQUENT P, A, AND OC LOANS/TOTAL P, A, AND OC LOANS
7. # ACCUMULATED NET INCOME
8. # RESERVES FOR BAD LOANS – DELINQUENT LOANS
9. # TOTAL OF PERSONAL & AUTO & MORTGAGE LOANS
10. # TOTAL CASH

**Figure 3 Decision Sheet for Period 2**

THE CREDIT UNION MANAGEMENT GAME  
DECISION SHEET

1.	Credit union number	<u>1</u>
2.	Period number	<u>2</u>

LOAN DECISIONS

3.	New personal loans (maximum amount)	<u>10,000,000</u>
4.	Annual rate on new personal loans	<u>9%</u>
5.	New auto loans (maximum amount)	<u>10,000,000</u>
6.	Annual rate on new auto loans	<u>12%</u>
7.	Open end credit (maximum amount)	<u>120,000</u>
8.	Annual rate on open end credit	<u>18%</u>
9.	New real estate loans (maximum amount)	<u>500,000</u>
10.	Annual rate on new real estate loans	<u>6%</u>
11.	Annual rate on loans covered by shares	<u>6%</u>

INVESTMENTS

12.	Funds for new government securities	<u>2,000,000</u>
13.	Term to maturity of new government securities	<u>4</u>
14.	Amount of government securities to be sold	<u>0</u>
15.	Funds invested or withdrawn from corporate central (if withdrawals are desired, use a minus (-) sign)	<u>1,000,000</u>
16.	Funds for the purchase of CD's	<u>50,000</u>

LIABILITIES, DIVIDENDS AND PROMOTIONS

17.	Funds borrowed or repaid to other financial institutions (if repayments are desired, use a minus (-) sign)	<u>0</u>
18.	Annual rate paid on CD's	<u>7.5%</u>
19.	Annual rate paid on IRA's	<u>8%</u>
20.	Annual dividend rate for shares	<u>5.5%</u>
21.	Annual dividend rate for share drafts	<u>5.5%</u>
22.	Amount spent to increase deposits	<u>10,000</u>
23.	Amount spent to increase loan demand	<u>10,000</u>

**Figure 4.1 A Listing of Period 2 Decisions**

DECISIONS THIS PERIOD

CREDIT UNION NUMBER	1
PERIOD NUMBER	2
NEW PERSONAL LOANS	10,000,000
ANNUAL RATE OF NEW PESONAL LOANS	9.0000
NEW AUTO LOANS	10,000,000
ANNUAL RATE ON NEW AUTO LOANS	12.0000
OPEN ENDED CREDIT	120,000
ANNUAL RATE ON OPEN ENDED CREDIT	18.0000
NEW REAL ETATE LOANS	500,000
ANNUAL RATE ON NEW REAL ESTATE LOANS	6.0000
ANNUAL RATE ON LOANS COVERED BY SHARES	6.0000
FUNDS FOR NEW GOV. SECURITIES	2,000,000
TERM TO MATURITY	4
SECURITIES TO BE SOLD	0
FUNDS INVESTED OR SOLD THRU CORPORATE CENTRAL C.D.'S PURCHASED	1,000,000 50,000
FUNDS BORROWED OR REPAYED	0
ANNUAL RATE ON C.D.'S	7.5000
ANNUAL RATE PAID ON I.R.A.'S	8.0000
ANNUAL DIVIDEND RATE FOR SHARES	5.5000
ANNUAL DIVIDEND RATE FOR SHARE DRAFTS	5.0000
AMOUNT TO INCREASE DEPOSITS	10,000
AMOUNT TO INCREASE LOAN DEMAND	10,000

**Figure 4.2 The Balance Sheet for Period 2**

**CREDIT UNION NO. 1  
BALANCE SHEET  
FOR PERIOD 2**

ASSETS		LIABILITIES	
CASH	97,138	NOTES PAYABLE	2,456,229
LOANS		SHARES	9,713,754
PERSONAL LOANS	3,031,306	C.D. INVESTMENT ACCOUNTS	256,175
AUTO LOANS	2,111,339	I.R.A. ACCOUNTS	166,134
OPEN CREDIT	120,000	SHARE DRAFT ACCOUNTS	27,736
REAL ESTATE LOANS	866,279	UNDIVIDED EARNINGS	39,257
LOANS SECURED BY SHARES	77,087	NET INCOME THIS PERIOD	253,858
(LESS) ALLOWANCE FOR LOAN LOSSES	500,097		
GOVERNMENT SECURITIES	4,231,507		
INVESTMENTS IN CORPORATE CENTRAL	2,713,348		
SHORT TERM FUNDS IN CORP CENTRAL	0		
CERTIFICATES OF DEPOSIT HELD	51,163		
FIXED ASSETS	114,075		
<b>TOTAL ASSETS</b>	<b>12,913,143</b>	<b>TOTAL LIABILITIES</b>	<b>12,913,142</b>

ADDITIONAL FINANCIAL INFORMATION

EFFECTIVE ANNUAL DIVIDEND RATE THIS PERIOD	5.5000
RATIO OF NOTES PAYABLE TO SHARES AND U.E.	0.2518
RATIO OF LOANS TO SHARES	0.6310
RATIO OF EXPENSES TO INCOME	0.5209
TOTAL INTEREST RECEIVED FROM LOANS THIS PERIOD	271,727
DELINQUENT LOANS	
PERSONAL	73,592
AUTO	40,816
OPEN CREDIT	4,490



**Figure 4.3 The Income and Expense Statement for Period 2**

CREDIT UNION NO. 1  
INCOME AND EXPENSE  
FOR PERIOD 2

INCOME		529,820
INTEREST ON LOANS TO MEMBERS		
PERSONAL LOANS	132,822	
AUTO LOANS	105,279	
OPEN CREDIT	9,900	
REAL ESTATE LOANS	21,595	
LOANS SECURED BY SHARES	2,132	
INCOME FROM INVESTMENTS		
GOVERNMENT SECURITIES	153,008	
INVESTMENTS IN CORPORATE CENTRAL	74,848	
SHORT TERM FUNDS IN CORP CENTRAL	29,074	
CERTIFICATES OF DEPOSIT HELD	1,163	
EXPENSES		275,961
SALARIES	75,000	
OTHER EXPENSE	40,032	
INSURANCE – LOANS AND SHARES	42,475	
PROVISIONS FOR LOAN LOSSES	28,206	
INTEREST EXPENSE		
INTEREST ON BORROWED MONEY	53,278	
INTEREST ON I.R.A. ACCOUNTS	5,894	
INTEREST ON C.D. ACCOUNTS	7,597	
INTEREST ON SHARE DRAFTS	555	
PROMOTION EXPENSE	20,000	
DEPRECIATION	2,925	
NET INCOME THIS PERIOD		253,858

**Figure 4.4 The Statement of Cash Position and Flow for Period 2**

CREDIT UNION NO. 1  
STATEMENT OF CASH POSITION AND FLOW  
FOR PERIOD 2

PREVIOUS CASH POSITION		93,638
CASH INFLOW		
NET INCREASE IN SHARES PURCHASED BY MEMBERS	92,500	
NET INCREASE IN DEPOSITS ACCOUNTS		
C.D. ACCOUNT DEPOSITS	92,000	
I.R.A. DEPOSITS	25,800	
SHARE DRAFT DEPOSITS	10,000	
LOAN REPAYMENTS – INCLUDING INTEREST		
PERSONAL LOANS	1,046,637	
AUTO LOANS	449,094	
OPEN CREDIT LOANS	60,410	
REAL ESTATE LOANS	51,358	
LOANS SECURED BY SHARES	40,798	
NEW BORROWINGS	2,356,229	
GOVERNMENT SECURITIES SOLD AND MATURING	0	
INVESTMENTS IN CORPORATE CENTRAL WITHDRAWN	0	
SHORT TERM FUNDS IN CORPORATE CENTRAL WITHDRAWN	2,354,998	
MATURING CERTIFICATE OF DEPOSITS HELD	0	
TOTAL CASH INFLOW		6,579,823
CASH OUTFLOW		
NEW LOANS MADE		
PERSONAL LOANS	1,751,020	
AUTO LOANS	1,020,408	
OPEN CREDIT LOANS	70,510	
REAL ESTATE LOANS	396,000	
LOANS SECURED BY SHARES	57,600	
REPAYMENT OF LOANS	0	
GOVERNMENT SECURITIES PURCHASED	2,000,000	
NEW INVESTMENTS IN CORPORATE CENTRAL	1,000,000	
SHORT TERM INVESTMENT IN CORP CENTRAL	0	
CERTIFICATES OF DEPOSIT PURCHASED	50,000	
EXPENSES – LESS NON-CASH EXPENSES	230,785	
TOTAL CASH OUTFLOW		6,576,324
NEW CASH POSITION		97,138

**Figure 4.5 The Government Securities and CD's Portfolio Report for Period 2**

CREDIT UNION NO. 1  
GOVERNMENT SECURITIES PORTFOLIO  
FOR PERIOD 2

ANNUAL MATURITY DATE YIELD	MATURITY VALUE SECURITIES HELD	MARKET VALUE SECURITIES HELD	COST SECURITIES HELD	MARKET PRICE	
NEXT PERIOD	0.	0.	0.		
NEXT PERIOD + 1	0.	0.	0.	0.95868	8.62019
NEXT PERIOD + 2	2,332,797.	2,153,008.	2,000,000.	0.92293	8.18317
NEXT PERIOD + 3	2,332,797.	2,078,499.	2,000,000.	0.89099	7.84476
NEXT PERIOD + 4				0.85734	7.84602
TOTAL	4665,594	4,231,507.	4,000,000.		

C.D. INVESTMENTS HELD

MATURITY DATE	MATURITY VALUE	COST OF C.D.'S	INTEREST RATE
NEXT PERIOD	0.	0.	9.00
NEXT PERIOD + 1	54,650	50,000	9.30
TOTAL	54,650	50,000	

**Figure 4.6 The Financial Industry and Credit Union Forecasts for Period 3**

CREDIT UNION NO. 1  
 FINANCIAL INDUSTRY AND CREDIT UNION FORECASTS  
 FOR PERIOD 3  
 INDUSTRY FORECAST

ANNUAL RATES CHARGED BY BANKS	PERCENT RATES
PERSONAL LOANS	13.20
AUTO LOANS	13.20
OPEN CREDIT LOANS	18.00
REAL ESTATE LOANS	10.44
ANNUAL RATES OFFERED BY BANKS	
CERTIFICATES OF DEPOSIT	8.70
I.R.A.'S	9.40
DRAFT ACCOUNTS	5.25
PASSBOOK ACCOUNTS	7.00
ANNUAL RATE CHARGED ON LOANS FROM BANKS	8.50
ANNUAL RATE PAID ON CERTIFICATES OF DEPOSIT	9.50
ANNUAL RATE ON INVESTMENTS IN CORPORATE CENTRAL	
LONG TERM	7.00
SHORT TERM	5.00

CREDIT UNION FORECASTS

DEMAND FOR LOANS	FORECAST
PERSONAL	1,716,000
AUTO	1,230,000
OPEN CREDIT	161,000
REAL ESTATE	400,500
SHARE	58,050
INCREASE IN SHARES	92,500
INCREASE IN C.D. ACCOUNT DEPOSITS	91,000
INCREASE IN I.R.A. ACCOUNT DEPOSITS	24,800
INCREASE IN SHARE DRAFT DEPOSITS	15,001

**Figure 4.7 The Financial Analysis Report for Period 2**

CREDIT UNION NO. 1  
FINANCIAL ANALYSIS  
FOR PERIOD 2

LOANS/SHARES	0.6310
NOTES PAYABLE/SHARES & U.E.	0.2518
NET INCOME FOR THIS PERIOD	253,858
EFFECTIVE ANNUAL DIVIDEND PAID	5.5000
% NET INCOME & UNDIVID. EARN. & RESERVES/TOTAL ASSETS	0.0614
DELINQUENT P, A, AND OC LOANS/TOTAL P, A, AND OC LOANS	0.0226
ACCUMULATED NET INCOME	450,869
RESERVES FOR BAD LOANS – DELINQUENT LOANS	381,199
TOTAL OF PERSONAL & AUTO & MORTGAGE LOANS	6,008,923
TOTAL CASH	97,138

**Figure 4.8 The Composite Financial Analysis Report**

**COMPOSITE FINANCIAL ANALYSIS**

**FOR PERIOD 2**

UNION	1	2	3	4	5	6	7	8	9	10
1	0.6310	0.2518	253,858	5.5000	0.0614	0.0226	450,869	381,199	6,008,923	97,138

- 11. # LOANS/SHARES
- 12. # NOTES PAYABLE/SHARES & U.E.
- 13. # NET INCOME FOR THIS PERIOD
- 14. # EFFECTIVE ANNUAL DIVIDEND RATE PAID
- 15. # % NET INCOME & UNDIVID. EARNINGS & RESERVES/TOTAL ASSETS
- 16. # DELINQUENT P, A, AND OC LOANS/TOTAL P, A, AND OC LOANS
- 17. # ACCUMULATED NET INCOME
- 18. # RESERVES FOR BAD LOANS – DELINQUENT LOANS
- 19. # TOTAL OF PERSONAL & AUTO & MORTGAGE LOANS
- 20. # TOTAL CASH