

126c
no. 1087
cop. 5



UNIVERSITY OF
ILLINOIS LIBRARY
AT, URBANA-CHAMPAIGN
AGRICULTURE



CONSUMER

CIRCULATING COPY
AGRICULTURE LIBRARY

CREDIT:

UNIVERSITY OF ILLINOIS
LIBRARY

uses, costs, laws

JEANNE L. HAFSTROM,
MARILYN M. DUNSING, and
KAREN P. SCHNITTGRUND

Circular 1087
Cooperative Extension Service
College of Agriculture
University of Illinois at Urbana-Champaign

CONTENTS

Types of Credit (Charge accounts, revolving or budget accounts, installment credit, consolidation loans)	1
Consumer Credit Agencies (Commercial banks, credit unions, life insurance companies, savings and loan associations, consumer finance companies)	3
Credit Cards (Types of credit cards, lost credit cards, unsolicited credit cards)	5
Figuring Interest Costs (Simple interest, discount rate, dollar charge, revolving charge accounts, installment payments)	7
Comparing Credit Costs (Credit costs for an automatic washer, . . . for an automobile).	12
Regulation of Consumer Credit (Truth in Lending and your family, The Fair Credit Reporting Act, the Illinois Attorney General's Office).	17
Advantages of Using Credit	20
Disadvantages of Using Credit	22
Your Family's Use of Credit	22
References for Further Reading	24

This circular was written by JEANNE L. HAFSTROM, Assistant Professor of Family and Consumption Economics; MARILYN M. DUNSING, Professor of Family and Consumption Economics; and KAREN P. SCHNITTGRUND, Instructor in Family Economics.

The Illinois Cooperative Extension Service provides equal opportunities in programs and employment.

Urbana, Illinois

December, 1973

Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. JOHN B. CLAAR, Director, Cooperative Extension Service, University of Illinois at Urbana-Champaign.

USED WISELY, consumer credit can be one of the most valuable resources an individual or family has. Used unwisely, it can become a liability and a threat to financial security.

Consumer credit is a business transaction. It enables people to get goods, services, or money now and pay for them at some future time—usually within two years. Through the use of credit, people can: (1) acquire durable goods, such as household equipment or automobiles; (2) meet unexpected expenses, such as those caused by accidents or illness; (3) meet everyday expenses when incomes are interrupted, as when the breadwinner is laid off or is ill; (4) finance family expenses from paycheck to paycheck, or until expected income, such as the returns from sale of farm produce, is received.

Although it is desirable to put money aside for emergencies, many families find it hard to save. If some need does arise, consumer credit is often the answer. Judging from the availability of consumer credit in the United States, you should have little difficulty in getting it if you need it. In fact, most of the nation's families use some form of consumer credit every year.

TYPES OF CREDIT

Consumer credit consists of two main types—cash credit and merchandise or sales credit. Cash credit provides funds which may be put to any use. Merchandise or sales credit permits the consumer to postpone paying for specified goods. It is available in different forms such as charge accounts, revolving accounts, budget accounts, or installment accounts.

Charge accounts

The charge account is one of the most prevalent forms of credit in the United States. It does not usually involve an interest payment, a promissory note, or a contract form. The account is most often payable at the end of 30 days. Although there is normally no charge for this type of credit, there is often a markup on goods in the store to cover the cost of the service. Sometimes a charge will be made if the account is not paid on time. In addition, some 30-day charge accounts become revolving charge accounts if they are not paid when due.

Revolving or budget accounts

Buying on revolving or budget accounts is much the same as buying on the installment plan. These accounts, however, may be used for all types of goods, while the installment plan is used for the more durable goods, such as major equipment. A limit is usually set on the revolving account. The size of the unpaid balance determines how much must be paid every month. For example, a buyer could be allowed a limit of \$100 and be required to pay \$10 per month plus 1½ percent interest on either the unpaid or the previous balance each month (page 10). This would mean an 18 percent annual interest charge, a costly type of credit.

Installment credit

Installment credit accounts are used when one is purchasing durable goods and so they involve relatively large amounts of credit. A down payment is usually required, and the rest of the purchase price, plus interest, is paid off in several installments.

The buyer almost always signs a formal contract which defines his obligations. Under this contract the seller holds title to the goods and reserves the right to repossess them if the buyer becomes delinquent in his payments. Before you sign an installment contract, be sure to read it thoroughly. Cost of the article, amount paid down, and amount and number of monthly payments should all be taken into consideration.

The cost of installment credit may vary considerably from store to store. Within any given store the cost also varies with the number of payments and the total amount of the installment purchase. Generally, the rate of interest decreases as the amount of the purchase increases. It is therefore difficult to compare the interest rate of installment credit with the rates of other types of sales credit. For specific items of home furnishings and appliances, however, the interest rate is often less on an installment plan than on a revolving credit account if the purchased item costs \$100 or more with up to 24 months to pay.

Consolidation loans

As consumer credit becomes a more widely accepted way to buy, some families are finding that they have over-committed themselves financially. When this happens, people often find they can ease the financial pressure by getting a new loan to cover all the old debts. This type of loan, known as a consolidation loan, is often available from a bank, credit union, or finance company. A consolidation loan does not reduce the total amount of money that you owe, but it does reduce the

size of your monthly payments. Since the period of time over which you are repaying the loan is extended, the dollar amount of interest will be increased.

Before deciding that a consolidation loan is the answer for you, be sure that you know all the facts about the loan. You should know what the monthly payments are, how many payments you will have to make, and how much additional interest you are paying since your time for paying off your debts has been extended. Also, be sure to compare the costs for consolidation loans at different lending institutions, just as you would for any other type of credit.

CONSUMER CREDIT AGENCIES

Commercial banks

Commercial banks make small cash loans to consumers. The amount of money that banks lend and the interest rate they charge may vary in the same community. The same bank, also, may be willing to lend different amounts of money and charge different interest rates to different individuals. On the whole, commercial banks are one of the best sources for a small loan if you are a good risk and have good collateral. Life insurance policies, which have a loan value, may be used as security for a small loan from a bank.

Bank interest rates vary from 6 to 18 percent a year, with the higher rates being on unsecured loans. It is common for banks to discount a loan; that is, they deduct the interest charge from the principal at the time the loan is made. For example, on a \$100 loan at 6 percent interest, the borrower would be given \$94. As brought out on page 9, the true interest rate on discounted loans is somewhat higher than the stated rate.

Credit unions

Credit unions are cooperatives organized by a group of people, usually in one industry. To be eligible for a loan, a person must be a member, owning at least one share (usually costing around \$5) in the credit union. This membership entitles him to all voting privileges in the organization. The overhead of a credit union is low, partly because members donate their time for such jobs as serving on a committee that grants loans to other members. Sometimes office space is rent-free.

Credit unions charge less interest than many other agencies. In Illinois the maximum rate of interest for loans up to \$1,000 is 1 percent a month on the unpaid balance. For example, on a \$900 loan the true

rate of interest would be 12 percent a year. On loans of \$1,000 or more, the monthly rate of interest is $\frac{9}{10}$ of 1 percent on the unpaid balance, or 10.8 percent a year. Sometimes credit unions charge rates below the allowed maximum. Usually the borrower repays his loan in monthly installments.

Life insurance companies

A policyholder may borrow money directly on his life insurance policy after it has been in effect long enough to build up a cash surrender value. Most policies state the amount of money that the company will lend. Companies usually make loans at the annual rate of 5 percent, but this rate may vary.

If a person borrows on his life insurance policy, the face value of protection is decreased by the amount of the loan. If the policyholder should die, the beneficiary is paid only what is left after the loan plus any unpaid interest has been deducted from the face value of the policy. Since insurance companies encourage but do not demand that such loans be repaid, the borrower may be tempted to postpone repayment. As already indicated, the life insurance policy may serve as collateral for a bank loan, also.

Savings and loan associations

Savings and loan associations, operating under special federal and state laws, make loans primarily for home ownership. Recent regulations permit them to lend money for mobile homes and also for educational purposes. In addition, a person who has an open-end mortgage may be able to add consumer goods to the mortgage; in this case, the interest rate on the mortgage may or may not increase.

You may also get a passbook loan on your savings account. Usually the loan may not exceed 90 percent of the value of the account. The interest rate on such loans is regulated by law. If the association is paying the maximum dividend rate (currently $5\frac{1}{4}$ percent) on savings accounts, the maximum interest rate that may be charged is $1\frac{1}{2}$ percent over the dividend rate; otherwise, $1\frac{3}{4}$ percent over the current dividend rate may be charged.

If you need funds, it would seem more realistic to use the savings themselves rather than to borrow against them, especially since you would generally pay more as interest on the loan than you would receive as dividends on your account (5 to $5\frac{1}{4}$ percent). However, borrowing may be justified when you need money just before dividends are to be declared on your account. If dividends are declared semiannually, for

example, you will receive your dividend for the entire six-months period, and if your loan is for a much shorter period, you may come out ahead on the transaction.

Consumer finance companies

In Illinois, consumer finance companies are regulated by two laws — the Consumer Finance Act and the Consumer Installment Loan Act. The Consumer Finance Act applies to consumer finance companies that make “small” loans, not exceeding \$800. These companies are licensed in Illinois. They may charge a maximum interest rate of 3 percent per month on the first \$150 of the unpaid principal balance; 2 percent per month on the next \$150; and 1 percent per month on any part of the unpaid balance that exceeds \$300. The actual annual rate on a loan of \$150 or less thus amounts to 36 percent. For loans of \$300 or less, consumer finance companies are generally among the most expensive credit sources of legal lending agencies.

The Consumer Installment Loan Act applies to consumer finance companies that make “large” loans, between \$800 and \$5,000. The maximum rate of interest they may charge depends on the length of time of the loan. For example, on loans not exceeding 30 months the maximum interest rate is 8.5 percent per year. In addition, these companies also have maximum amounts they may charge for life insurance and health and accident insurance policies when these are part of the loan.

Many finance companies operate under both laws, lending up to \$5,000, while others operate only under the Consumer Finance Act, lending up to \$800. The latter are often referred to as small loan companies.

CREDIT CARDS

One of the most popular ways of using consumer credit is with the credit card. While there are several different types of credit cards, most provide revolving credit combined with the 30-day charge account. The holder of the credit card pays no finance charge if he pays the bill within the time limit set by the agency that issues the card. However, after that date interest is charged, usually $1\frac{1}{2}$ percent per month on the unpaid or previous balance (a true annual interest rate of 18 percent).

Types of credit cards

For many years department stores and national oil companies have issued *single-use* credit cards. These cards are for use in one department store (or chain of department stores) or in service stations selling a par-

ticular brand of gasoline. The cards are issued free to consumers, and usually there is a "free" period in which to pay the bill before an interest charge is made.

Many single-use cards are now becoming *dual-use* or even *multiple-use* cards. Some may be used at both a department store and a restaurant; others at service stations, motels, and restaurants designated by the issuing company.

The *travel and entertainment* credit card, which has become popular since World War II, establishes credit with a number of different companies. The companies send charges to a centralized bookkeeping service, and the holder of the credit card is sent one bill. This type of card costs the holder an annual fee of \$10 to \$20. Many businessmen use travel and entertainment credit cards for expense account records.

Bank credit cards were first issued in the 1950's but have come into major importance for everyday credit use in recent years. Today millions of persons throughout the United States have bank credit cards which may be used at service stations, restaurants, hardware or department stores, beauty and barber shops, in short at any place displaying "_____ bank credit cards accepted here." Over 2,000 commercial banks throughout the country are involved in issuance of bank credit cards. Bank credit cards may be free to the consumer if the bills are paid when due, but consumers must be certain to check individual credit cards for finance charges and annual interest rates, since there is much variation in credit card plans offered.

Lost credit cards

If you lose a credit card, notify the issuer at once, first by telephone, then in writing. The company will stop payment on charges made on the card and will issue you a new one. Until payment is stopped, the person who finds your credit card might use it illegally to run up a big bill for which you could be partially liable.

Some credit cards are insured by the issuer. You may also buy insurance to protect against the loss or theft of credit cards. A further protection is now provided by federal law: Your liability for each account will not exceed \$50, provided you give the issuing companies adequate notice of the loss or theft of your cards.

The law also requires that companies provide you with a self-addressed, prestamped notification form, such as an envelope or post card, which you can mail in if your credit card is lost or stolen. Often the forms are color-coded so the company knows the problem as soon as the notification reaches the office. If you have not received notification forms from the companies where you have credit cards, ask for them.

Even if you mail the notification form immediately, you will be better protected if you also call the company. Some companies are offering special "hot lines" so you can easily report the loss or theft of your credit cards free of charge. Remember, if your liability is questioned, you must be able to prove that you notified the company when the card was lost or stolen.

Keep a record of your credit cards in a safe place where you can easily get it when needed. Include the name, address, and telephone number of each issuing company, as well as your credit card number.

Unsolicited credit cards

Illinois and federal laws protect you against liability for unsolicited credit cards. In fact, sending you unsolicited cards is now illegal. You should not receive a credit card, issued in your name, if you have not applied for the card or for the extension of credit or for the establishment of a charge account. If you do receive an unsolicited card, you are not responsible for any purchases made unless you indicate your acceptance of the card by signing or using it or by permitting or authorizing use of the card by someone else.

The best thing to do with an unsolicited credit card that you do not intend to use is to destroy it.

FIGURING INTEREST COSTS

The amount you must pay to use someone else's money is called interest. When you borrow money you pay the lender enough to cover the cost of the money to him, plus a share of the cost of running his office, plus enough profit to make his operation worthwhile. To help in comparing credit costs from different financing agencies, you can translate credit charges into simple interest rates or total dollar costs.

Simple interest

Simple interest is what you pay for borrowing money that you agree to *pay back in a lump sum*. It is usually (often by law) expressed as a percentage, or "rate," of the borrowed amount, this percentage being payable for each specified time period that you use the money. For example, you may borrow at the rate of 6 percent per year. If you borrow \$200 at this rate you would pay \$12 to use the \$200 for one year; \$6 to use it for six months; or \$24 to use it for two years. A basic arithmetic formula may be used to figure simple interest when the principal and the interest are paid at the end of a time period.

Finding the dollar cost of a loan. Assume that you know the principal, interest rate, and length of the loan. To find the dollar cost, you multiply the principal by the annual rate of interest, and then multiply by the time for which the loan is made.

This is expressed by the following basic formula:

$$D = PRT \quad \text{where} \quad \begin{array}{l} D = \text{unknown dollar cost of credit} \\ P = \text{principal (amount borrowed)} \\ R = \text{annual rate of interest} \\ T = \text{time} \end{array}$$

Using the figures in the example given above (\$200 borrowed at 6 percent for one year), you would have the following results:

$$D = PRT \quad \text{where} \quad \begin{array}{l} D = \text{unknown dollar cost of credit} \\ P = \$200 \\ R = 6 \text{ percent or } .06 \\ T = 1 \text{ year} \end{array}$$

$$D = \$200 \times .06 \times 1 \\ D = \$12$$

If you want to borrow the money for six months (one-half year), the problem would be:

$$D = PRT \quad \text{where} \quad T = 6/12 \text{ (}\frac{1}{2}\text{) year} \\ D = \$200 \times .06 \times \frac{1}{2} \\ D = \$6$$

Or suppose that you want to use the money for 2 years:

$$D = PRT \quad \text{where} \quad T = 2 \text{ years} \\ D = \$200 \times .06 \times 2 \\ D = \$24$$

Finding the interest rate. The basic formula ($D = PRT$) may be transposed to figure the annual interest rate when the dollar cost is known:

$$R = \frac{D}{PT} \quad \text{where} \quad \begin{array}{l} R = \text{unknown annual rate of interest} \\ D = \text{dollar cost of credit} \\ P = \text{principal} \\ T = \text{time} \end{array}$$

Substituting figures from the above problem, we have:

$$R = \frac{D}{PT} \quad \text{where} \quad \begin{array}{l} R = \text{unknown annual rate of interest} \\ D = \$12 \\ P = \$200 \\ T = 1 \text{ year} \end{array}$$

$$R = \frac{\$12}{\$200 \times 1} = .06$$

$$R = 6 \text{ percent}$$

Discount rate

Another way of computing interest is the discount rate. This rate is a percentage of the whole amount borrowed, charged for the time period it will be used, and deducted from the amount actually given to you. In this case, the simple interest is higher than the stated rate, because you do not have use of the entire amount of money. For example, on \$200 borrowed at a discount rate of 6 percent for one year, the lender discounts or deducts \$12 at the time of the loan; therefore, the borrower actually receives only \$188. You can use the formula for figuring simple interest to find out how much interest you are actually paying with the discount method:

$$R = \frac{D}{PT} \quad \text{where} \quad \begin{array}{l} R = \text{unknown annual rate of interest} \\ D = \text{dollar cost of credit—\$12} \\ P = \text{principal—\$188} \\ T = \text{time—1 year} \end{array}$$

$$R = \frac{\$12}{\$188 \times 1} = .064$$

$$R = 6.4 \text{ percent}$$

The 6 percent discount rate is therefore equivalent to a true simple interest rate of 6.4 percent a year.

Dollar charge

In a dollar charge transaction, the credit charge is a stated amount of money and is paid in a lump sum at the end of the loan period. For example, on a \$180 loan for one year the interest charge is quoted as \$15. You pay \$195 at the end of 12 months. You can figure the simple interest as follows:

$$R = \frac{D}{PT} \quad \text{where} \quad \begin{array}{l} R = \text{unknown annual rate of interest} \\ D = \text{dollar cost of credit—\$15} \\ P = \text{principal—\$180} \\ T = \text{time—1 year} \end{array}$$

$$R = \frac{\$15}{\$180 \times 1} = .083$$

$$R = 8.3 \text{ percent}$$

The \$15 cost of the loan is equivalent to 8.3 percent simple interest. You have full use of the principal—\$180—for one year in this instance.

Revolving charge accounts

Most stores in Illinois charge interest of $1\frac{1}{2}$ percent a month on revolving charge accounts. However, the basis on which the interest is calculated varies from store to store. For many years, the unpaid balance was used as the basis; during recent years, however, many companies have begun to use the previous balance.

Your previous balance is the amount you owed at the beginning of the previous month before you made any payments. Your unpaid balance is the amount you owed after your monthly payment was made.

Assume, for example, that your bill last month was \$150 and that you made a \$50 payment, leaving an unpaid balance of \$100. If interest for the month is figured on the previous balance of \$150, it will be \$2.25:

$$\begin{array}{r} \$150 \\ \text{(previous balance)} \end{array} \times \begin{array}{r} 1\frac{1}{2}\% \\ \text{(monthly interest rate)} \end{array} = \$2.25$$

If interest is computed on the unpaid balance of \$100, it will be \$1.50:

$$\begin{array}{r} \$100 \\ \text{(unpaid balance)} \end{array} \times \begin{array}{r} 1\frac{1}{2}\% \\ \text{(monthly interest rate)} \end{array} = \$1.50$$

Thus, even with the same rate of interest, you will pay a larger finance charge if the previous balance rather than the unpaid balance is used as the basis for calculations.

Some stores also have a "minimum finance charge." This means that you pay at least a 50 cent finance charge regardless of the basis used for computing interest or the interest rate. This only applies to bills on which the monthly interest charge would be less than 50 cents. Some companies say that it costs them this much to send you a bill. So even if your balance is only \$10, you will still have to pay at least 50 cents.

Installment payments

The installment payment is a common method of paying for merchandise or repaying cash loans. The calculations required for figuring the true annual rate of interest on installment payments are more difficult than those we have used thus far. This is because the borrower does not keep the entire amount borrowed and repay it and the interest in a lump sum at the end of a year or other specified time period. Instead he makes periodic payments, usually monthly, on both the principal and the interest during the time of the loan.

For example, on a \$200 washer, you are asked to put 10 percent

down and pay the balance in one year. The credit charge for this service is quoted as \$15. You pay \$20 down, leaving \$180 plus \$15 credit charge or \$195 to repay in 12 months. This amounts to \$16.25 a month. So each month you would pay \$15 on the principal (\$180 divided by 12) and \$1.25 on the interest (\$15 divided by 12). In this example the interest charge remains constant while the money in use diminishes. The following table will help to clarify this point:

<i>Month</i>	<i>Actual money in use</i>	<i>Amount you pay monthly for money in use</i>
1.....	\$180	\$1.25
2.....	165	1.25
3.....	150	1.25
4.....	135	1.25
5.....	120	1.25
6.....	105	1.25
7.....	90	1.25
8.....	75	1.25
9.....	60	1.25
10.....	45	1.25
11.....	30	1.25
12.....	15	1.25
Average.....	97.50 ^a
<u>Total interest.....</u>	15.00

(^a The total of the money in use each month — \$1170 — divided by 12.)

To figure the actual rate of interest you can now use the simple interest formula:

$$R = \frac{D}{PT} \quad \text{where} \quad \begin{array}{l} R = \text{unknown annual rate of interest} \\ D = \text{dollar cost of credit—\$15} \\ P = \text{principal—\$97.50 (average actual} \\ \quad \text{money in use)} \\ T = \text{time—1 year} \end{array}$$

$$R = \frac{\$15}{\$97.50 \times 1} = .1538$$

$$R = 15.4 \text{ percent}$$

The actual annual interest rate in this case is 15.4 percent. If you had borrowed the \$180 and paid it back in a lump sum at the end of the year, the true annual interest rate would have been 8.3 percent. But when you repay your loan monthly you do not have the use of \$180 for the year; instead you have \$97.50 on the average for the year. Therefore, the true annual interest rate is almost twice as much when you repay a loan monthly rather than in a lump sum at the end of the period.

The simple interest formula could still be used in this example, because we had figured the average amount of money in use per month. Obviously, it would be a long and complicated task to figure the average actual amount of money in use per month each time you make a purchase on the installment plan. This is not necessary if you use the following formula, which is one of the simplest for figuring the cost of installment credit:

$$i = \frac{2mD}{P(n+1)} \quad \text{where}$$

i = unknown annual rate of interest
 m = number of payments in one year
 n = number of payments to discharge debt
 D = charge in dollars (includes all carrying charges)
 P = principal or cash advance

You will note that the symbols P and D have the same meaning as in the simple interest formula. The symbol m is the number of installment payments in one year. If the debt is repaid monthly, m is 12; if weekly, m is 52. On the other hand, n is the number of payments made to discharge the debt. If the debt must be repaid in 18 monthly payments, n is 18; if in 24 monthly payments, n is 24.

Let us suppose that you want to buy a refrigerator costing \$300 and that you will pay for it in monthly payments over a two-year period. The credit charge is \$50. What rate of interest will you be paying?

$$i = \frac{2mD}{P(n+1)} \quad \text{where}$$

i = unknown annual rate of interest
 m = number of payments in one year — 12
 n = number of payments to discharge debt — 24
 D = charge in dollars — \$50
 P = principal — \$300

$$i = \frac{2 \times 12 \times \$50}{\$300 \times 25} = \frac{1200}{7500} = .16$$

$$i = 16 \text{ percent}$$

COMPARING CREDIT COSTS

The formula for figuring interest on installment payments has been used in the following examples to illustrate the cost of credit from three different sources for an automatic washer and from four different sources for an automobile. (The figures in the examples are used only for illustrative purposes. When you purchase in your local community you need to check with each source of credit, since rates vary from store to store as well as from one bank to another.)

Credit costs for an automatic washer

You want to purchase an automatic washer at a cost of \$200 and will need \$180 credit for one year. (It is assumed that you have the \$20 required for the down payment.) Where should you go to get this credit?

Store. At the store you are quoted monthly payments of \$16.25. This amounts to a total payment of \$195 (\$16.25 × 12). Since you borrow only \$180, the remaining \$15 is the credit charge. To figure the annual rate of interest, you use the formula on page 12 as it is.

$$i = \frac{2mD}{P(n + 1)} \quad \text{where}$$

i = unknown annual rate of interest
m = number of payments in one year — 12
n = number of payments to discharge debt — 12
D = charge in dollars — \$15
P = principal — \$180

$$i = \frac{2 \times 12 \times \$15}{\$180 \times 13} = \frac{360}{2340} = .1538$$

i = 15.4 percent

Small loan company. You could borrow the money and pay cash. A small loan company offers a rate of 3 percent per month on the unpaid balance. To find the annual rate of interest, *i*, you need to multiply the monthly rate, 3 percent, by 12; *i* is therefore 36 percent. Then to find the charge in dollars when the annual interest rate is known, the formula can be changed as follows:

$$D = \frac{iP(n + 1)}{2m} \quad \text{where}$$

D = unknown charge in dollars
i = 36 percent or .36
m = number of payments in one year — 12
n = number of payments to discharge debt — 12
P = principal — \$180

$$D = \frac{.36 \times \$180 \times 13}{24} = \frac{\$842.40}{24} = \$35.10$$

D = \$35.10 annual charge

Bank. You can borrow the money from a bank at a 6 percent discount rate with an added \$2 fee for investigation. To have \$180 to use for one year, you must borrow \$194 since in a discount transaction the interest (\$11.64 in this case) is subtracted before the money is given to you, and you also need \$2 for the investigation fee. If you borrow \$194 from the bank, minus \$13.64 for the discount cost and investigation fee, you actually receive \$180.36 to be paid back in monthly payments. Use the original formula to find the annual rate of interest that you would pay.

$$i = \frac{2mD}{P(n + 1)} \quad \text{where}$$

i = unknown annual rate of interest
m = number of payments in one year — 12
n = number of payments to discharge debt — 12
D = charge in dollars — \$13.64
P = principal — \$180.36

$$i = \frac{2 \times 12 \times \$13.64}{\$180.36 \times 13} = \frac{327.36}{2344.68} = .1396 \text{ or } .14$$

i = 14 percent

Three costs compared. Now to help decide which is the best source of credit, you can arrange the costs and interest rates in tabular form.

<i>Source of credit</i>	<i>Annual interest rate</i>	<i>Dollar cost per year</i>
Store.....	15.4%	\$15.00
Small loan co.....	36.0	35.10
Bank.....	14.0	13.64

Credit costs for an automobile

You want to buy a new automobile and will need \$1,500 credit for 24 months. (It is assumed that you can make a down payment of one-third of the total cost.) Where should you go to get this credit?

Dealer arranges through bank. The automobile salesman suggests that the dealer can finance the \$1,500 for you through a local bank. He says that this loan will cost you “about 8 percent” interest, and you will make your 24 monthly payments directly to the bank. The monthly payments will be \$73.61. This amounts to a total repayment of \$1,766.64 (\$73.61 × 24). Since you borrow only \$1,500, the remaining \$266.64 is the credit charge. To figure the annual rate of interest, *i*, you use the formula as is:

$$i = \frac{2mD}{P(n + 1)} \quad \text{where}$$

i = unknown annual rate of interest
m = number of payments in one year — 12
n = number of payments to discharge debt — 24
D = charge in dollars — \$266.64
P = principal — \$1,500

$$i = \frac{2 \times 12 \times \$266.64}{\$1,500 \times 25} = \frac{6,399.36}{37,500} = .1706$$

i = 17.1 percent

Automobile loan agency. The same salesman also tells you that, if you prefer, you can finance the car through the dealer’s automobile loan

agency. For this type of transaction, he quotes you a monthly payment figure of \$74.25 for 24 months. This would be a total repayment of \$1,782 (\$74.25 × 24). Since you again would borrow only \$1,500, the remaining \$282 is the credit charge. Using the formula, you figure the interest:

$$i = \frac{2mD}{P(n + 1)} \quad \text{where}$$

- i = unknown annual rate of interest
- m = number of payments in one year — 12
- n = number of payments to discharge debt — 24
- D = charge in dollars — \$282
- P = principal — \$1,500

$$i = \frac{2 \times 12 \times \$282}{\$1,500 \times 25} = \frac{6,768}{37,500} = .1805$$

i = 18.1 percent

Directly from bank. You could borrow the \$1,500 from a bank and pay cash. A local bank offers you monthly payments of \$72.32 for 24 months. This amounts to a total repayment of \$1,735.68 (\$72.32 × 24), making the credit charge \$235.68. Applying the formula, you get these figures:

$$i = \frac{2mD}{P(n + 1)} \quad \text{where}$$

- i = unknown annual rate of interest
- m = number of payments in one year — 12
- n = number of payments to discharge debt — 24
- D = charge in dollars — \$235.68
- P = principal — \$1,500

$$i = \frac{2 \times 12 \times \$235.68}{\$1,500 \times 25} = \frac{5,656.32}{37,500} = .1508$$

i = 15.1 percent

Finance company. You could borrow the money from a finance company, where you are quoted monthly payments of \$76.43 for 24 months. These amount to a total repayment of \$1,834.32 (\$76.43 × 24). Subtracting \$1,500, the amount of your loan, you have a credit charge of \$334.32. The interest rate works out as follows:

$$i = \frac{2mD}{P(n + 1)} \quad \text{where}$$

- i = unknown annual rate of interest
- m = number of payments in one year — 12
- n = number of payments to discharge debt — 24
- D = charge in dollars — \$334.32
- P = principal — \$1,500

$$i = \frac{2 \times 12 \times \$334.32}{\$1,500 \times 25} = \frac{8,023.68}{37,500} = .2140$$

i = 21.4 percent

Credit union. You could borrow the \$1,500 from a credit union, if there is one where you work. The credit union manager quotes you payments of \$69.78 for 24 months. The total amount repaid is \$1,674.72 (\$69.78 × 24) and the total credit charge is \$174.72. Using the formula, the interest is:

$$i = \frac{2mD}{P(n + 1)} \quad \text{where}$$

i = unknown annual rate of interest
m = number of payments in one year — 12
n = number of payments to discharge debt — 24
D = charge in dollars — \$174.72
P = principal — \$1,500

$$i = \frac{2 \times 12 \times \$174.72}{\$1,500 \times 25} = \frac{4,193.28}{37,500} = .1118$$

i = 11.2 percent

Comparing costs. For the sake of easy comparison, the charges made by the five credit sources are presented in Table 1. It should be pointed

Table 1. — Charges by Five Sources of Credit for an Automobile

Source of credit	Monthly payment	Annual interest rate, percent	Cost for 2-year period
Bank through automobile dealer	\$73.61	17.1	\$266.64
Automobile agency	74.25	18.1	282.00
Bank	72.32	15.1	235.68
Finance company	76.43	21.4	334.32
Credit union	69.78	11.2	174.72

Table 2. — What You Pay for Credit

If interest is added to purchase price and the total is repaid in 12 monthly payments		If interest is charged "only on the unpaid balance"	
When they say:	You pay an annual rate of:	When they say:	You pay an annual rate of:
4% per year	7.3%	3/4 of 1% per month	9%
6% per year	10.9%	5/6 of 1% per month	10%
8% per year	14.5%	1% per month	12%
10% per year	18.0%	1 1/4% per month	15%
1% per month	21.5%	1 1/2% per month	18%
		2% per month	24%
		2 1/2% per month	30%
		3% per month	36%

out that the cost of each source of credit included a charge for a life insurance policy that would pay the loan in the event of the borrower's death.

For those who feel that the preceding formulas are too complicated, Table 2, "What You Pay for Credit," is given on page 16. Armed with the information in this table, as well as on the preceding pages, you should be able to compare the true cost of loans from various sources.

REGULATION OF CONSUMER CREDIT

Truth in Lending and your family

The federal Truth-in-Lending law that went into effect on July 1, 1969, does two very important things for your family and its use of credit. First, it helps you to know exactly what the charge is for the use of credit. Second, the law makes it easier for you to compare the costs of credit from different sources.

The two most important things to know about the cost of credit are the finance charge and the annual interest (percentage) rate. These tell you, the consumer, at a glance how much you are paying for credit and also show you the relative cost of that credit in percentage terms. The Truth-in-Lending law requires that both the finance charge and the annual percentage rate be displayed prominently on the forms and statements used by a creditor.

Finance charge and annual percentage rate. The finance charge is the total of all costs made by the creditor and is paid either directly or indirectly by the consumer as part of the extension of credit. It includes such costs as interest, service charge or a carrying charge, loan fees, and premiums for credit life insurance that are required as a condition of obtaining credit. This cost should be stated as a dollar-and-cents amount.

The annual percentage rate represents the relationship of the total finance charge to the total amount financed. The annual percentage rate must be computed to the nearest one-quarter of 1 percent. The method of figuring the annual percentage rate depends on whether the credit is open-end (the revolving type) or credit other than open-end (the installment type).

While the Truth-in-Lending law does not fix interest rates or other credit charges, the state of Illinois does set limits on interest rates as discussed on page 5.

Open-end credit. For open-end credit—the department store revolving charge account is an example—the annual percentage rate is

figured by multiplying the service charge for the period (month, week, etc.) by the number of periods in a year. For example, on a typical charge of $1\frac{1}{2}$ percent of the unpaid balance with bills sent to the consumer monthly, the annual percentage rate would be 18 percent.

In addition, the regulation spells out the methods to be used in figuring open-end credit costs when different rates are used for the period of a loan.

Credit other than open-end. According to the Truth-in-Lending law, the annual percentage rate must be computed by the actuarial method for credit other than open-end — the installment account is an example of this type of credit. For example, for a one-year bank loan of \$100 to be repaid monthly at a 6 percent add-on charge, the annual percentage rate would be 11 percent. This is because the \$100 would be available to the consumer only for the first month of the loan. When you make the first payment, you actually repay part of the principal and then have less money at your disposal. (See pages 10, 11, and 12 of this circular for how to figure installment interest.)

Using the same set of circumstances but this time with a 6 percent charge discounted in advance, the annual percentage rate would be 11.5 percent. That's because in this case you would receive \$94 and must repay \$100. (See page 9 of this circular on how to figure the discount rate.)

Cancellation rights. The Truth-in-Lending law gives you one other very important right — the right to cancel a credit transaction when your home is used as collateral. The law gives you three business days in which you may cancel the transaction, but your *cancellation must be in writing to the creditor*. This cancellation right does not apply to the first mortgage to finance purchase of a residence itself, however.

You may waive the cancellation right provided for in the Truth-in-Lending law. To do this, you must notify the creditor in writing that you give up your right to cancel and that you need the credit immediately. For example, if your home is damaged by fire or wind, you may need to have repair work begun immediately.

Advertising. Advertising is also covered in the law. In general, advertising refers to newspaper, magazine, radio, and television advertising as well as to leaflets, flyers, catalogues, public-address-system announcements, direct mail literature, window displays, billboards, and other media.

If the business mentions one specific term in an advertisement, such as the down payment or the finance charge, then all other important

terms of credit, such as the number of payments, the amount of each payment, and the period that payments will be made, must be mentioned.

Amendment concerning credit cards. The sending of unsolicited credit cards has been prohibited in Illinois for several years. Now an amendment to the Truth-in-Lending law prohibits this practice throughout the United States. As indicated on page 6, this same amendment limits the liability of the card holder to \$50 for each account when a credit card is used by an unauthorized person. The amendment also states that companies must provide credit card holders with forms for notifying the company that a credit card is lost or stolen.

More details on Truth-in-Lending law. If you wish to know more details about the Truth-in-Lending law, request a free pamphlet, "What You Ought to Know About Truth in Lending," from any Federal Reserve Bank or from the Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

The Fair Credit Reporting Act and your family

The Fair Credit Reporting Act, which went into effect on April 25, 1971, was passed by Congress to protect consumers against the circulation of inaccurate or obsolete information about their ability to pay bills. Congress also wanted to insure that consumer reporting agencies — better known as credit bureaus — were completely fair in reporting consumer credit practices.

According to this law, when you have been denied credit, insurance, or employment, you have the right to be told what is in your file, as well as the name of the credit bureau that issued the report. If you act within 30 days, you can find out what is in your file free of charge. You may also have incorrect information reinvestigated. If any information in your file cannot be verified, you can have it removed and ask the agency to notify those who have received the incorrect information that it is false and has been deleted from your file.

If you want to know more about the Fair Credit and Reporting Act write to: Federal Trade Commission, Sixth Street and Pennsylvania Avenue, N.W., Washington, D.C. 10580, and ask for "FTC Buyer's Guide No. 7: Fair Credit Reporting Act."

The Illinois Attorney General's Office

In Illinois, the agency responsible for the enforcement of consumer credit regulation is the Illinois Attorney General's Office. This office enforces three state laws pertaining to consumer credit.

The *Consumer Fraud and Deceptive Business Practices Act* protects borrowers from fraud and other deceptive practices related to the borrowing or lending of money.

The *Retail Installment Sales Act* and the *Motor Vehicle Installment Sales Act* regulate the sale of goods on the installment plan. These acts provide that every installment contract must include the cash price of the item; the down payment, if any; the finance charge as an annual percentage rate; the number and size of the payments; due dates or periods of payments scheduled to repay debt; and the sum of the payments. The buyer has the right to prepay his installment contract on any due date and to receive a refund of excess finance charges paid if the excess is greater than \$1.00.

If you have a credit problem that you believe is due to a violation of these acts, the Illinois Attorney General or the State's Attorney of any county in Illinois can take action against the violator. Report your claim to your county State's Attorney or to: Attorney General, 500 South Second Street, Springfield, Illinois 62706; or Attorney General, Room 204, 134 North LaSalle Street, Chicago, Illinois 60601.

ADVANTAGES OF USING CREDIT

The fact that more families make use of more credit every year indicates that they find advantages in its use. Credit may be used as a convenience, to establish a credit rating, to meet emergencies, to consolidate debts, to take advantage of bargains, to get better service on equipment, or to obtain the use of an article earlier than would otherwise be possible. Prudent persons are able to make wise use of credit.

Convenience

Most families find it convenient to use some form of credit. For example, it is easier to pay for the home-delivered newspaper or milk by the week or month than by the day. It is often more convenient to pay for a series of office calls at the doctor's or dentist's once a month rather than after each visit. Some families feel it is convenient to use an oil company credit card to charge goods and services at their local gasoline service station. They also find it safer to use a credit card on automobile trips than to carry cash for automobile expense or emergency.

Establish good credit standing

One reason that families give most often for using credit is that they want a good credit standing. When you open a charge account or take out an installment contract, you are establishing a credit rating. If there is a credit bureau in the community, a record of whether your account is cleared "on time," in a "satisfactory" manner, or "30 days late" will be filed. Of course your individual creditors will have such records in their files for referral when you wish to use them as references.

Good credit standing is especially important to families, since emergencies may arise when credit is needed. Unless your credit rating is established, you may not be able to get credit readily when you need it most. As was discussed earlier, the Fair Credit and Reporting Act helps you to protect your credit rating.

Consolidate debts

It may be to the family's advantage to consolidate several installment accounts, thus saving money on interest charges. This may often be done by taking out further credit — for example, in the form of a bank loan. The interest charge for the bank loan is generally less than the carrying charges on installment purchases.

Take advantage of bargains

Families sometimes find that when credit is available they can take advantage of special bargains and sales. These purchases are bargains when the items are needed or are planned for in the family's financial program.

Better service on equipment

Another reason families often give for the use of credit is that they believe they receive better service on equipment. This is especially true when equipment is purchased on the installment plan. The dealer can be expected to keep the article in good repair, since he usually holds the title until the item is paid in full. In addition, the credit customer is often a repeat customer, so dealers are especially interested in keeping credit customers satisfied.

Earlier use of article

Through credit, a family can have the use of an article while paying for it. This is of major importance for young couples just establishing homes.

DISADVANTAGES OF USING CREDIT

Costs money

Credit costs money. Families can get more goods and services for their money if they save for purchases and pay cash rather than buying on credit. In addition, the savings can be earning interest until the purchase is made.

Hidden cost

The cost of credit is often hidden. You can overcome this disadvantage by investigating the cost of credit thoroughly before you buy. Although most people would not pay cash for an article without knowing its complete cost, they often neglect to ask the cost when they are buying it on credit.

The Truth-in-Lending regulation discussed on page 17 helps you to know exactly what the cost of credit is. With this information, you will not have a "hidden cost" when you use consumer credit.

Overbuying

Charge account holders (as well as installment plan buyers) sometimes tend to overbuy or buy on impulse when not faced with the immediate problem of paying cash.

Merchandise costs more

Since charge accounts increase the store's cost of doing business, some merchandise may cost more in any store which offers charge accounts. This added cost is in lieu of a charge on the account itself.

Mortgages the future income

Signing an installment or credit contract mortgages the future income of the family. This can create "debt worries" if too many goods are purchased at one time.

YOUR FAMILY'S USE OF CREDIT

Good financial management often includes the wise use of credit. Although credit can be a valuable tool when used wisely, it can be destructive when used unwisely.

The use of credit can be constructive when it will advance the long-term goals of the family, when the goods purchased on credit give

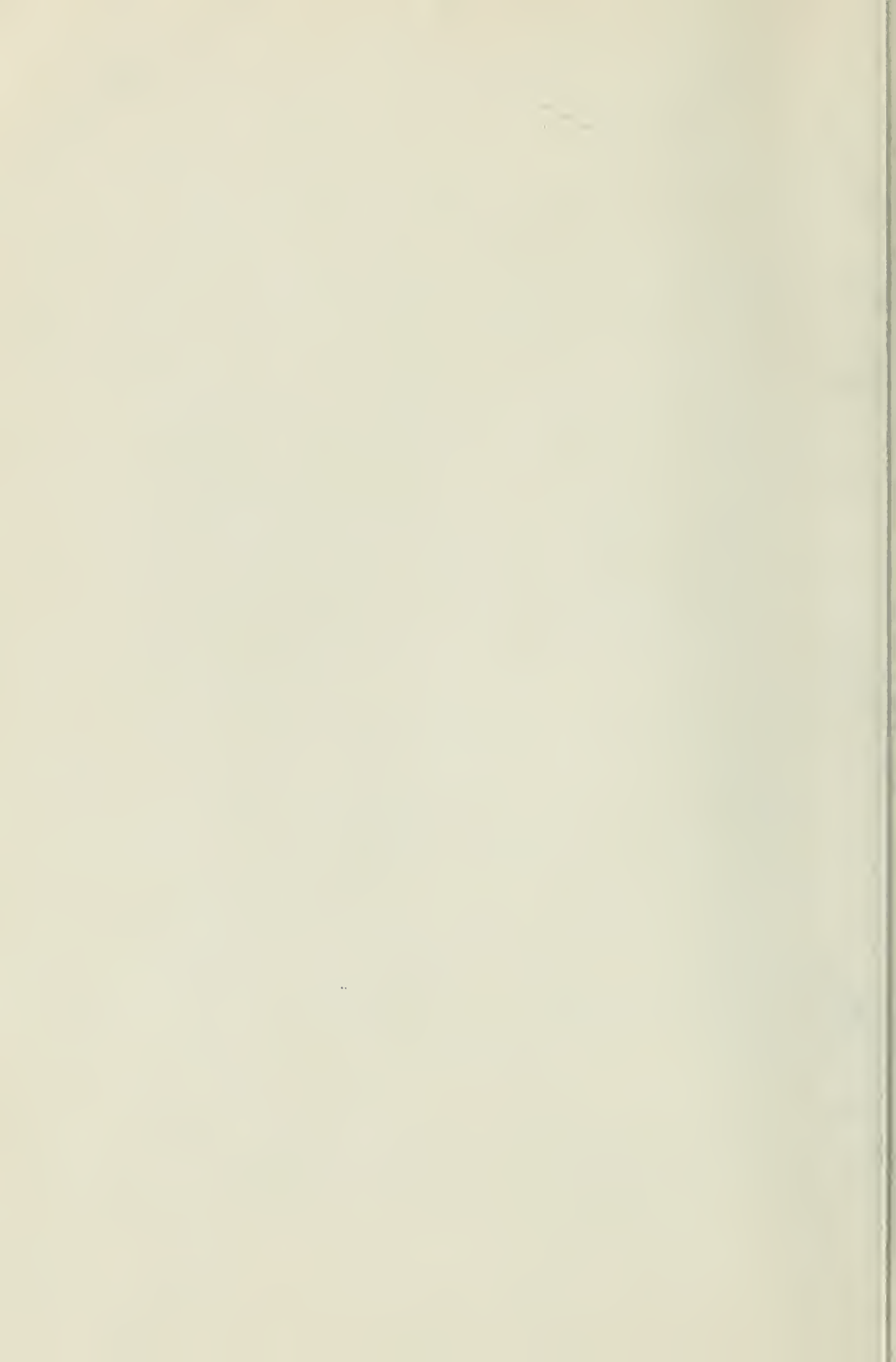
enough satisfaction to compensate for the adjustments necessary to repay the debt, and when the family deems it more sensible to use credit than to save and pay cash later. By using credit, the family can buy such items as equipment and furnishings when the needs for such items are greatest.

Each family must decide for itself whether the use of credit should be included in its financial management. The amount of credit you can use safely will depend on your current income as well as your income prospects, your current fixed expenditures, the size of your family, your family's stage in the family life cycle, and the thrift habits of family members. Since these factors vary from family to family, there is no "rule" that can be set for *your* family's use of credit.

A word of final advice to you and your family when using credit — always find the true cost (both in terms of interest rate and dollar cost) of credit to you.

REFERENCES FOR FURTHER READING

- American Home Economics Association. *Consumer Credit in Family Financial Management*. (Proceedings of a National Workshop.) Washington, D.C., 1968.
- Board of Governors of the Federal Reserve System. *Consumer Installment Credit*. (A study in 4 parts and 6 volumes.) Washington, D.C., 1957.
- Board of Governors of the Federal Reserve System. *What You Ought to Know About Truth in Lending*. Washington, D.C., 1969.
- Britton, Virginia. *Personal Finance*. New York: American Book Company, 1968.
- Donaldson, Elvin F., and Pfahl, John K. *Personal Finance*. New York: The Ronald Press Company, 1971.
- Federal Trade Commission. *FTC Buyer's Guide No. 7: Fair Credit Reporting Act*. Washington, D.C., 1971.
- Goodyear, Margaret R., and Klohr, Mildred Chapin. *Managing for Effective Living*. New York: John Wiley and Sons, Inc., 1965.
- Gordon, Leland J., and Lee, Stewart M. *Economics for Consumers*. New York: American Book Company, 1972.
- Kyrk, Hazel. *The Family in the American Economy*. Chicago: University of Chicago Press, 1953.
- Reid, Margaret G. *Consumers and the Market*. New York: F. S. Crofts and Company, 1946.
- Smith, Carlton; Pratt, Richard Putnam; and the Editors of Time-Life Books. *The Time-Life Book of Family Finance*. New York: Time-Life Books, 1969.
- State of Illinois, Department of Financial Institutions. *Consumer Finance Act and Rules and Regulations*, 1970.
- State of Illinois, Department of Financial Institutions. *Consumer Installment Loan Act and Rules and Regulations*, 1970.
- State of Illinois, Department of Financial Institutions. *Truth in Lending Rules and Regulations*, 1970.
- State of Illinois, Attorney General. *Consumer Fraud Act*, 1971.
- State of Illinois, Attorney General. *Motor Vehicle Retail Installment Sales Act*, 1971.
- State of Illinois, Attorney General. *Retail Installment Sales Act*, 1971.
- Troelstrup, Arch W. *The Consumer in American Society*. New York: McGraw-Hill, Inc., 1970.





UNIVERSITY OF ILLINOIS-URBANA

Q 630.71L6C C005
CIRCULAR URBANA, ILL.
1087 1973



3 0112 019533204