Unit E: Understanding the Use of Money and Obtaining Credit

Lesson 2: Understanding the Concept of Borrowing Money

Terms

- Collateral
- Co-signer
- Compound Interest
- Fixed Cost
- Goal
- Institutional Credit
- Insurance
- Intermediate-Term Credit
- Lender
- Long-Term Credit
- Lump Sum Payment
- Operating Loans
- Payoff
- Periodic Payment
- Principal
- Rate
- Short-Term Credit
- Simple interest
- Time
- Variable Cost

Importance of Loans

I. Loans are obtained by individuals or business owners because they have a specific ***goal*** in mind. Without the option to receive a loan, the individual or business owner would not be able to achieve the goal at the desired time.

Importance of Loans

A. A goal is a end or purpose that one tries to attain.

1. Setting goals is important. When an individual or business has set goals, they have something specific to try to achieve. Goals also help a person or business become more efficient or better at the tasks they complete.
2. A goal for obtaining a loan may be as large as starting an aquaculture business or as small as purchasing more baskets to harvest apples.

Importance of Loans

B. One must consider if they need a loan based upon the goal that has been set.
   1. The cost of attaining the goal must be calculated. A list of materials and items needed to attain the goal should be developed. Then, a price for each item should be estimated.
   2. The current financial status of the business must be reviewed. If the business has enough cash on hand to purchase the items needed to attain the goal, then no loan is needed. Additionally, other capital items on hand should be considered. This may include animals or grain that could be sold in exchange for cash or materials needed to achieve the goal.
   3. If it is determined that the business needs a loan, then a bank or other financial institution should be contacted to begin the borrowing process.

Importance of Loans

4. For example, if an orchard business would like to begin a beekeeping enterprise, a list of the materials with estimated costs should be created.

Item	Quantity	Price per Unit	Total Cost
bee hives	3	10000 AFS	30000 AFS
bee swarm trap	1	1750 AFS	1750 AFS
smoker	1	5000 AFS	5000 AFS
protective clothing	1	15000 AFS	15000 AFS
honey processing equipment	1	10000 AFS	10000 AFS
honey containers	20	250 AFS	5000 AFS
TOTAL			66750 AFS

The orchard business only has 5000 AFS in savings; therefore, the business will need a loan to begin the beekeeping enterprise.

Loan Uses

II. Loans, or credit, can be used for many different purposes. Loans can be obtained for various amounts and lengths of time. These loans may be given by individuals or institutions.

   A. Most often, credit is obtained in order to establish a business or to assist a business in growing or adding another enterprise.

Loan Uses

1. ***Short-term credit*** is usually paid back within one year.
   a. Usually used to purchase small items.
2. ***Intermediate-term credit*** is usually paid back in one to five years.
3. ***Real estate financing*** usually ranges from five to thirty years.
   a. Used to purchase land or homes.

Loan Uses

B. ***Operating loans*** are used to assist agribusiness owners with annual expenses.

1. Operating loans are paid back within one year or less and can be used for different types of expenses.

   a. ***Fixed costs*** are those costs that are constant regardless of level of production.

      i. Examples of fixed costs include interest paid on existing loans and taxes.

      ii. Fixed costs per unit of production decreases as more product is produced.

   b. ***Variable costs*** are those costs that change as production levels change.

      i. Examples of variable costs include fertilizer, seed, feed, fuel, and hired labor.

      ii. Total variable costs increase as production increases.

Loan Uses

C. ***Collateral*** are the assets that are pledged to secure a loan. In the event that the loan cannot be paid by the borrower, the collateral may be sold to pay the loan.

D. If collateral is not available a ***cosigner***, a person who shares responsibility for the loan if the borrower is unable to pay, may be used.

Qualities Lenders Look For in Borrowers

III. A ***lender*** is an institution or individual who loans money. ***Institutional credit*** is obtained from organizations in the business of loaning money

A. A borrower must be of good character. A person with good character is usually trustworthy and will have the responsibility to payback the loan at the appropriate date.

1. Character refers to the reputation of the borrower.
2. Sometimes lenders will ask for character references.
3. If there are difficulties in paying bills in a timely manner, it is best to contact the lender to discuss alternative plans for repayment.

Qualities Lenders Look For in Borrowers

B. The financial position of the borrower is important.
   1. Financial position refers to overall economic position.
   2. Lenders will likely ask to see a current balance sheet and other documents to determine financial standing.

Qualities Lenders Look For in Borrowers

C. A borrower must prove the capacity to repay the loan.

1. A monthly budget or cash flow statement is often viewed by the lender.
2. The lender wants to know that there is enough income to cover all of the monthly financial obligations.

Qualities Lenders Look For in Borrowers

D. Security of the loan is another consideration.

1. The lending institution must know that if the loan goes unpaid they will be able to recover their money.
2. Collateral is property that will be taken if repayment is not made.
3. Land and other long-term assets usually act as collateral for loans.

Qualities to Look for in a Lender

IV. A borrower must feel comfortable with and trust the lender.

A. A lender should be of good character.

1. A question to consider is: "Does this lender have a good reputation in the community?"

Qualities to Look for in a Lender

B. Lending policies should be examined.

1. Is ***insurance*** required?

   a. An insurance policy is purchased to protect important items. Depending on the terms of the policy, the items will be replaced if they are stolen or destroyed by a natural disaster or accident. The replacement (or money to purchase a new item) will be provided by the insurance company.

2. Are business hours of the institution convenient?

   a. If a loan is obtained from an institution, it is important that the borrower can transact business with that institution during the time that they are open for business.

Qualities to Look for in a Lender

C. Cost of the loan is another consideration.
   1. Various institutions and individuals may differ on the interest they charge.
   2. Fees and charges vary by institution.
      a. Some institutions charge extra fees for repaying the loan prior to the due date and other items.

Calculating the Cost of Credit

V. Credit is not often given without cost.

The rate and the type of interest charged on the loan will differ among institutions. The key to a successful and positive experience for the lender and the borrower is that both parties are fully aware and agree on the rate and type of interest charged.

A. The annual percentage rate (APR) is the interest charge on the loan per year.

Calculating the Cost of Credit

B. Two major ways of calculating interest are simple and compound.

1. The ***simple interest*** method, also called "add in interest method," is calculated by using the original principal for the entire time period (in years) at the determined rate.

    a. The formula for calculating simple interest is simple interest = principal × rate × time.

    i. The formula for calculating the total amount to be paid back is: $FV = PV + n(PV \times i)$ where FV = future value, PV = present value, n = time, and i = interest rate.

Calculating the Cost of Credit

b. The ***principal*** is the total dollar amount borrowed.

c. The ***rate*** is interest rate or percentage charged for using the principal.

d. ***Time*** is the number of years the money is borrowed.

e. Example problem: Find the interest amount on a loan of 15000 AFS at 8% simple interest for 2 years.

   i. Answer: simple interest = principal × rate × time

   = 15000 AFS x .08 x 2

   = 1200 x 2

   = 2400 AFS

Calculating the Cost of Credit

2. The ***compound interest*** method is based on the changing principal balance for the length of time the money was borrowed.
   a. This method results in higher payments.
   b. This method accrues "interest on interest" which results in the principal increasing over time. Interest is paid more than once during a term.
   c. Money can be compounded annually, semiannually, monthly, or daily.
   d. The formula for determining the future value on compound interest is: $FV = PV \times (1 + i)^n$, where FV = future value, PV = present value, n = time, and i = interest rate

Calculating the Cost of Credit

e. Example problem: Find the total amount to be paid back on a 15000 AFS loan at 8% compounded interest rate for 2 years.

   i. Answer: $FV = PV \times (1 + i)^n$

   = 15000 x (1 + .08) 2

   = 15000 x (1.08)2

   = 15000 x (1.166)

   = 17490 AFS

Calculating the Cost of Credit

f. Example problem: Find the amount of interest to be paid on the 15000 AFS loan at 8% compounded interest rate for 2 years.

   i. Answer: $FV = PV \times (1 + i)^n$

$$= 15000 \text{ x } (1 + .08)\ 2$$

$$= 15000 \text{ x } (1.08)2$$

$$= 15000 \text{ x } (1.166)$$

$$= 17490 \text{ AFS}$$

$$= 17490 - 15000$$

$$= 2490 \text{ AFS}$$

Repayment

VI. When borrowing money, it is essential that the borrower repay the full amount of the loan and any interest or fees the loan requires.

A. The due date for each payment and the amount of the payment are often dependent upon the type of loan. Additionally, they are determined by the lender and agreed upon by the borrower.

Repayment

1. ***Periodic payments*** are a method of repayment where payments are made at equal intervals over the length of the loan period.
   a. Typical periodic payments are made on a monthly, quarterly (4 times per year), or annual basis.
   b. The total amount to be repaid is calculated then divided by the number of payments to determine the amount to be paid at each payment.
   c. Usually, this type of payment method is used for intermediate or long-term loans and loans with a large principal amount.

Repayment

2. A ***lump sum payment*** is a repayment method that is made at one time to repay the entire sum of principal and interest in a loan.
   a. The total amount to be repaid is calculated then paid all at once by the borrower at the end of the loan period.
   b. This type of payment method is typically used with short-term loans and operating loans.

Repayment

B. Some individuals or agribusinesses that borrow money choose to repay the loan before it is due. This may be a result of earning more profit or money than they expected.

1. It is first important to consider the terms of the loan to ensure the ***payoff*** is worth any fees that might be incurred. The payoff is the total repayment of a loan.
2. A significant amount of money can be saved by an early payoff.
   a. Because the principal will not be used for the entire length of the anticipated loan period, the full amount of calculated interest will not need to be paid.

Review

- What is the importance of loans?
- How can loans be used for different purposes?
- What are good characteristics of a lender?
- What does a lender look for in a borrower?
- How is the cost of credit calculated?
- How can loans be repaid?