Using Consumer Loans

Chapter 7

Learning Goals

LG1	Know when to use consumer loans, and be able to differentiate between the major types.
LG2	Identify the various sources of consumer loans.
LG3	Choose the best loans by comparing finance charges, maturity, collateral, and other loan terms.
LG4	Describe the features of, and calculate the finance charges on, single payment loans.
LG5	Evaluate the benefits of an installment loan.
LG6	Determine the costs of installment loans, and analyze whether it is better to pay cash or take out a loan.

How Will This Affect Me?

- Consumer loan sources abound, and their terms vary significantly. The primary types are single-payment and installment consumer loans. It's important to understand when to use each credit source, to be able to calculate and compare their costs, and to determine the circumstances in which it is best to take out a loan or pay cash. Practical examples considered in this chapter include taking out a car loan and borrowing to pay for a college education. The chapter provides you with an applied framework for evaluating the best ways to choose among and obtain consumer loans.

Financial Facts or Fantasies?

- **Buying a new car is the major reason that people borrow money through consumer loans.**
- **Consumer loans can be set up with fixed rates of interest or with variable loan rates.**
- **An S&L is the only type of financial institution that is prohibited from making consumer loans.**
- **Single-payment loans are often secured with some type of collateral and are usually relatively short-term in duration (maturities of one year or less).**
- **Using the discount method to calculate interest is one way of lowering the effective cost of a consumer loan.**
- **The Rule of 78s is a regulation that grew out of the Consumer Credit Enhancement Act of 1978 and mandates how installment loans will be set up.**

Consumer Loans

- Ability to borrow does not mean that you need to borrow funds
- Purchases should only be made when you have budgeted for the purchase.
- Item purchased should have an useful life longer than the term of the loan used to purchase the item.

Using Consumer Loans

- Loans made for specific purposes using formally negotiated contracts that specify the borrowing terms and repayment.
- One shot transaction made for specific purpose
- No more credit is available
- No credit cards or checks
- Used to borrow money to pay for big-ticket items

Type (Uses) of Consumer Loans

- Auto loans
- Other durable goods loans, such as furniture
- Education loans
- Personal loans
- Consolidation loans

Federally Sponsored Student Loans

- Stafford Loans (Direct & Federal Family Education Loans, FEEL
- Perkins Loans
- Parent Loans (PLUS)

Type of Federal Student Loans Exhibit 7.1

Loan Provisions	Stafford Loans*	Perkins Loans	PLUS Loans
Borrower	Student	Student	Parent
Interest rate	4.29% (undergrad) 5.84% (grad/professional)	5%	7.21%
Cumulative borrow limits	*Dependent and independent undergraduate students:* $23,000; *Grad/professional students:* $138,500 (including a max of $65,500 in subsidized loans) or $224,000 for medical school/health professionals	$27,500 (undergrad) $60,000 (grad/professional)	*No total dollar limit:* Cost of attendance minus any other financial aid received.
Loan fees	1.073% of loan origination fee	None	4.272% of loan amount
Loan term	Up to 10 years	10 years	10 years

Consumer Loans--Characterics

- Single Payment – Specified period and lump sum payment due
- Installment—Fixed, scheduled payments, like an annuity
- Fixed—Interest rate and payments remain the same
- Variable Rate—Interest rate and payments change periodically

Sources of Consumer Loans

- Commercial Banks—loan to customers with good credit
- Consumer Finance companies—high rates, easy to get
- Credit union—limited to members, but low rates
- Savings and Loan Associations—similar to banks
- Sales Finance Companies—supports sales of products
- Life Insurance Companies—reduces your insurance coverage
- Friends and Relatives—not advisable

Features of Commercial Loans

- Finance charges
- Loan maturity
- Total cost of the transaction
- Collateral
- Other
  - Payment date,
  - Prepayment penalties
  - Late fees

Keep Track of you Credit
See Worksheet 7.1

- Keep inventory sheet of debt
- Know total monthly payments
- Know total debt outstanding
- Check your debt safety ratio – should be less than 20

- Debt safety ratio = [total monthly payments / monthly take-home pay] * 100

Single Payment Loans

- Loan collateral
  - Lien
  - Chattel mortgage
  - Collateral note
- Loan maturity
- Loan repayment
  - Prepayment penalty
  - Loan rollover

Finance Charges and the APR

- Simple interest method—calculated on outstanding balance [i=prt]
- Discount Method—interest calculated on beginning principal balance and is subtracted from loan amount; remainder goes to borrower
- Finance charges paid in advance
- APR will be higher than stated interest rate

Simple Interest Method--Example

- I = prt,
- I = interest or finance charge,
- p = principal loan balance
- t = time period or term of loan

- Loan of $10,000, for two years at 8 %,
- Interest for entire term of loan, no compounding =
- $10,000 * 8% * 2 years = $1,600
- Amount due in two years = $11,600

Annual Percentage Rate, APR

$$\text{APR} = \frac{\text{Average annual finance charge}}{\text{Average loan balance outstanding}}$$

- Example, $10,000, 8%, 2 years
- APR = [(8% * $10,000 * 2) / 2] / $10,000 =
- $800 / $10,000 = 8%

Discount Method

- Finance Charge is computed the same as simple interest (I = prt), but the finance charge is subtracted from the principal and the net is given to the borrower.
- For example, $10,000, 8%, 2 year loan
- Total finance charge = $10,000 * 8% * 2 years = $1,600
- Amount to borrower is $10,000 - $1,600 = $8,400
- APR = (1,600/2) / $8,400 = 9.5%.

Installment Loans

- Repay debt in a series of equal payments
- Payments includes principal and interest
- Wide maturity range—6 months to 10 years or longer

Calculating Finance Charges on Installment Loan

- Simple Interest Method
- Interest is calculated on the outstanding balance each period. With each payment the amount of interest reduces and amount of principal paid increases

- Add-on Method
- Finance charge is calculated on original loan balance and then added to principal. Monthly payment computed by dividing total principal plus interest divided by 12

Calculating Finance Charges on Installment Loan --Example: Calculate the finance charges and APR on a $10,000 loan to be repaid in 24 monthly installments at an annual interest rate of 8%

- Use Exhibit 7.6, Payment for 8%, 24 months, $1,000 loan is 45.23; for $10,000 payment is 10 * 45.23 = $452.30

- Excel: +pmt(.08/12,24,10000) = $452.27

- Calculator

  (Set on 12 P/YR and END mode)

  10000 +/- PV

  8 I/YR

  24 N

  PM = **$452.27**

Calculating Finance Charges on Installment Loan

- **Month One:**
- Total payment $452.27
- Interest on outstanding balance, .08/12 = .6667% *10,000 = 66.67
- Reduction in Principal = $452.27 - $66.67 = $385.61
- Balance of loan after one payment = $10,000 – 390.18 = $9,614.39
- **Month Two:**
- Total payment $452.27
- Interest on outstanding balance, .08/12 = .6667% *9,614.39 = 64.10
- Reduction in Principal = $452.27 - $64.10 = $388.17
- Balance of loan after two payments = $9,614.39 – 388.17 = $9,226.22

Simple Interest Method

- Simple interest calculated on outstanding loan balance each period
- Each payment decreases outstanding loan balance
- Subsequent payment incur a lower finance charge—More of next payment goes towards repaying principal

- Using example, total payments over 24 months
- $452.27 * 24 = $10,854.48
- Loan amount = 10,000.00
- Total interest = $ 854.48

Add-on Method

- Calculate finance charges on the original amount for the full term
- $10,000 * 8% * 2 years = $1,600
- Add total interest to principal
- $10,000 + $1,600 = $11,600
- Divided this amount by the number of periods to arrive at monthly payment
- $11,600 / 24 = $483.33

Add-on Method: APR

$$\text{APR} = \frac{\text{Average annual finance charge}}{\text{Average loan balance outstanding}}$$

- APR = [(8% * $10,000 *2) / 2] / (10,000 /2)
- APR = $800 / $5,000 = 16%

Using Financial Calculator

Set on 12 P/YR

and END mode:

10000 +/-	PV
483.33	PMT
24	N
I/YR	14.67%

Comparative Finance Charges and APRs ($10,000, 8%, 24 mo)

	Simple Interest	Add-om Interest
Stated rate on loan	8%	8%
Finance Charges	$854.48	$1,600
Monthly Charges	$452.27	$483.33
Total Payment Made	$10,854.48	$11,600
APR	8%	14.67%

Other Loan Considerations

- Prepayment penalties
- Credit Life Insurance
- Rule of 78s (sum-of-the-digits)—A method of calculating interest that has extra-heavy interest charges in the early months of the loan.
- Credit life insurance: Very costly and gives more to lender
- Buy on time or pay cash
- Do not deplete emergency fund
- Worksheet 7.2