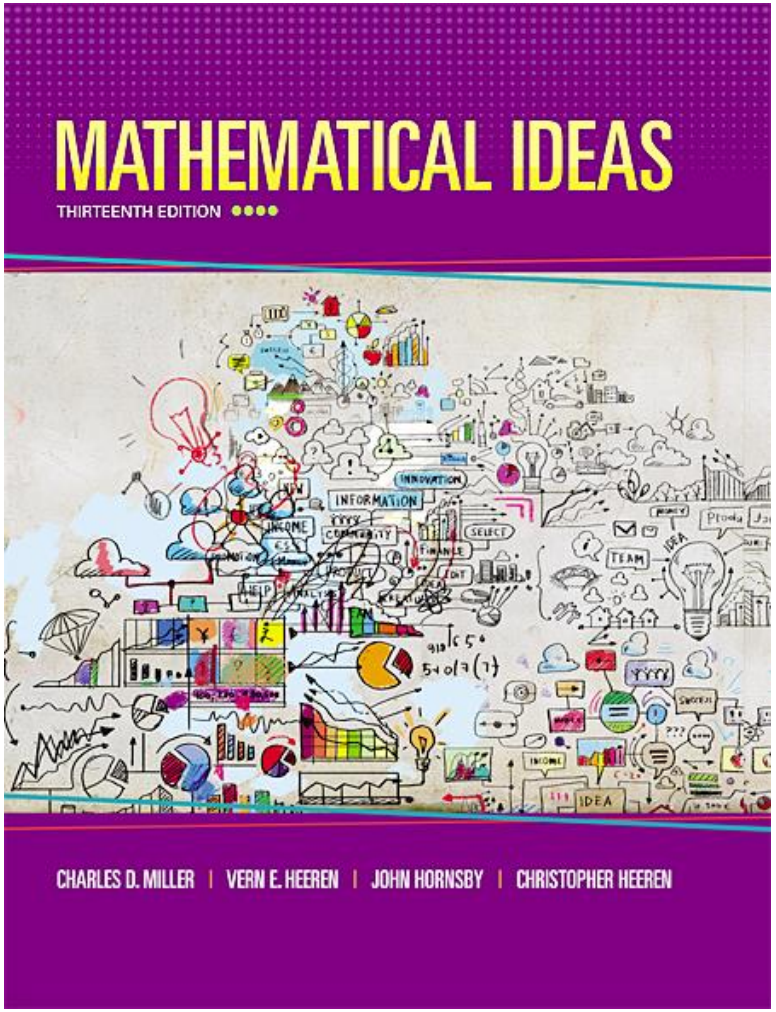
Chapter 13

Personal Financial Management



Chapter 13: Personal Financial Management

13.1 The Time Value of Money

13.2 Consumer Credit

13.3 Truth in Lending

13.4 The Costs and Advantages of Home Ownership

13.5 Financial Investments

Section 13-2

Consumer Credit

Installment Buying

- Identify the different types of consumer credit.
- Determine the interest, payments, and cost for installment loans.
- Determine account balances and finance charges for revolving loans.

Installment Buying

Borrowing to finance purchases and repaying with periodic payments is called **installment buying**. This section addresses two types of installment credit.

Closed-End Credit

Closed-end credit involves borrowing a set amount up front and paying a series of equal installments (payments) until the loan is paid off. Furniture and appliances may be financed through closed-end credit (sometimes called **fixed installment loans**).

Open-End Credit

With **revolving loans,** or **open-end** credit, there is no fixed number of installments – the consumer continues paying until no balance is owed. Examples include department store charge accounts and charge cards such as MasterCard and VISA.

Add-On Interest

Installment loans set up under closed-end credit often are based on **add-on interest**. This means that if an amount P is borrowed, the annual interest rate is to be r, and payments will extend over t years, then the required interest comes from the simple interest formula $I = Prt$. Find the future value of a simple interest loan and divide the payments equally (usually monthly) over the t years.

Example: Repaying an Installment Loan

Zach buys $2800 worth of furniture. He pays $400 down and agrees to pay the balance at 6% add-on interest for 2 years. Find

a) the total amount to be repaid and

b) the monthly payment.

Solution

Amount to be repaid $= P(1 + rt)$

$= \$2400(1 + (0.06)2)$

$= \$2688$

Example: Repaying an Installment Loan

Solution (continued)

b) Monthly payment = $2688/24 ← 24 payments
= $112

Open-End Credit

With a typical open-end credit account, a credit limit is established initially and the consumer can make any purchases during a month (up to the credit limit).

At the end of each billing period (normally once a month), the customer receives an itemized billing, a statement listing purchases and cash advances, the total balance owed, the minimum payment required, and perhaps other account information.

Open-End Credit

Any charges beyond cash advanced and cash prices of items purchased are called **finance charges**. Finance charges may include interest, an annual fee, credit insurance coverage, a time payment differential, or carrying charges.

Finance Charge/Average Daily Balance Method

Most open-end lenders use a method of calculating finance charges called the **average daily balance method**. It considers balances on all days of the billing period and comes closer to charging card holders for credit they actually utilize.

Example: Average Daily Balance

The activity on a credit card account for one billing period is given on the next slide. If the previous balance was $320.75, and the bank charges 1.4% per month on the average daily balance, find the average daily balance for the next billing (April 3) and the finance charge for the April 3 billing.

Example: Average Daily Balance

March 3	Billing date	
March 12	Payment	$250.00
March 17	Car repairs	$422.85
March 20	Food	$124.80
April 1	Clothes	$64.32

Example: Average Daily Balance

Solution

First we make a table of the running balance

Date	Running Balance
March 3	$320.75
March 12	$320.75 – $250.00 = $70.75
March 17	$70.75 + $422.85 = $493.60
March 20	$493.60 + $124.80 = $618.40
April 1	$618.40 + $64.32 = $682.72

Example: Average Daily Balance

Solution (continued)

Take the number of days of the balance times the balance.

Date	Balance	Days	Product
March 3	$320.75	9	$2886.75
March 12	$70.75	5	$353.75
March 17	$493.60	3	$1480.80
March 20	$618.40	12	$7420.80
April 1	$682.72	2	$1365.44

Example: Average Daily Balance

Solution (continued)

Find the sum of the daily balances by adding the last column = $13507.54.

$$\text{Average daily balance} = \frac{\text{Sum of daily balances}}{\text{Days in billing period}}$$

$$= \frac{\$13507.54}{31}$$

$$= \$435.73.$$

Finance charge = (0.014)($435.73) = $6.10.