

Chapter 7

Time Value of Money

LEARNING OBJECTIVES

After reading this chapter, students should be able to:

- Convert time value of money (TVM) problems from words to time lines.
- Explain the relationship between compounding and discounting, between future and present value.
- Compute the future value of some beginning amount, and find the present value of a single payment to be received in the future.
- Solve for time or interest rate, given the other three variables in the TVM equation.
- Find the future value of a series of equal, periodic payments (an annuity) as well as the present value of such an annuity.
- Explain the difference between an ordinary annuity and an annuity due, and calculate the difference in their values.
- Calculate the value of a perpetuity.
- Demonstrate how to find the present and future value of an uneven series of cash flows.
- Distinguish among the following interest rates: Nominal (or Quoted) rate, Periodic rate, and Effective (or Equivalent) Annual Rate; and properly choose between securities with different compounding periods.
- Solve time value of money problems that involve fractional time periods.
- Construct a loan amortization schedule.