

CHAPTER OVERVIEW

3: Time Value of Money

Compound interest is the eighth wonder of the world. He who understands it, earns it ... he who doesn't ... pays it.

– Albert Einstein

Learning Objectives

After completing this chapter, students should be able to

- Explain the concepts of future value, present value, annuities, and discount rates
- Solve for the future value, present value, payment, interest rate or number of periods using the 5-key approach on a financial calculator
- Work with annual, semi-annual, quarterly, monthly, biweekly, weekly, or daily periods
- Solve for the present value of a perpetuity
- Solve for the present value or future value of an uneven cash flow stream
- Solve for the interest rate implied by an uneven cash flow stream
- Explain, calculate, and compare investments based on the effective annual rate
- Perform complex time value of money calculations (problems where multiple steps are required in order to reach the final solution)

[3.1: The Power of Compound Interest](#)

[3.2: Future Value](#)

[3.3: Present Value](#)

[3.4: Annuities](#)

[3.5: Solving for PMT, I/YR, or N](#)

[3.6: Perpetuities](#)

[3.7: Uneven Cash Flow Streams](#)

[3.8: Non-Annual Compounding](#)

[3.9: Return to Future Value Tables](#)

[3.10: Complex Time Value of Money Problems](#)

[3.11: Key Takeaways](#)

[3.12: Exercises](#)

[3.13: Problems](#)

[3.14: References and Attributions](#)

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