

***Discounted Cash Flow
Valuation***

Chapter 5

Key Concepts and Skills

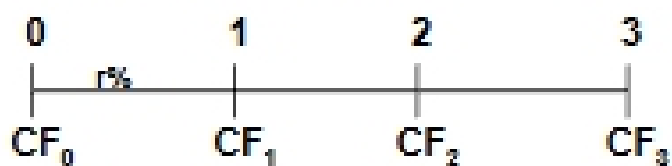
- Be able to compute the future value of multiple cash flows
- Be able to compute the present value of multiple cash flows
- Be able to compute loan payments
- Be able to find the interest rate on a loan
- Understand how loans are amortized or paid off
- Understand how interest rates are quoted

Time Lines

- Cash Inflows
- Cash Outflows

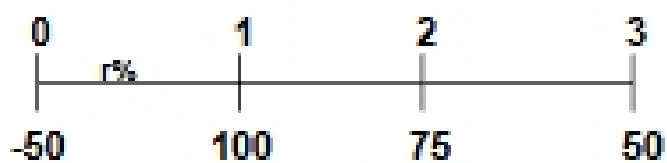
Time Lines

- Time lines show timing of cash flows.
- Tick marks are at ends of each period, so Time 0 is today; Time 1 is the end of Period 1; or the beginning of Period 2.



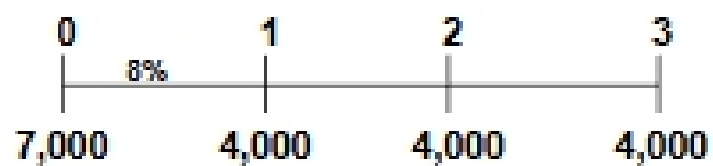
Time Lines

- Series of Uneven Cash Flows



Multiple Cash Flows - FV

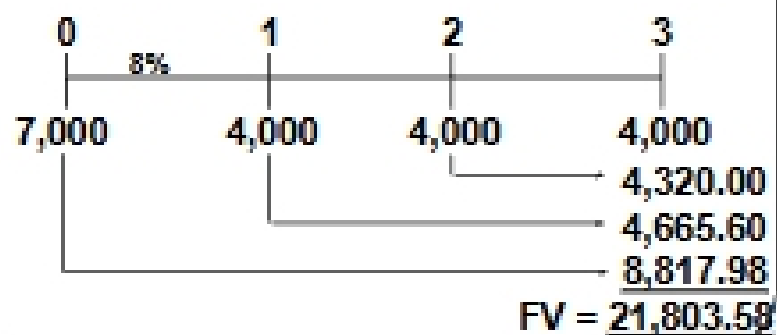
- What is the Future Value of the cash flow stream at the end of year 3.



Multiple Cash Flows - FV

- Find the value at the end of Year 3 of each cash flow and add them together.
 - CF0
 - $FV = 7,000(1.08)^3 = 8,817.98$
 - CF1
 - $FV = 4,000(1.08)^2 = 4,665.60$
 - CF2
 - $FV = 4,000(1.08) = 4,320$
 - CF3
 - $FV = PV = 4,000$
 - Total value in 3 years
 - $8,817.98 + 4,665.60 + 4,320 + 4,000 = 21,803.58$

Multiple Cash Flows - FV



Multiple Cash Flows - FV

- Suppose you invest \$500 in a mutual fund today and \$600 in one year. If the fund pays 9% annually, how much will you have in two years?
