Chapter Preview : Chapter 5

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Answer the following questions briefly.

1. What is the difference between effective annual rate and annual percentage rate?

   The main difference is whether it reflects compounding or not. The effective annual rate is based on compound interest, while annual percentage interest consider only simple interest.

2. For an interest rate of 12% per year, determine the effective rates per year for (a) quarterly, and (b) monthly compounding

   (a) =EFFECT(12%, 4) → 12.55%

   (b) =EFFECT(12%, 12) → 12.68%

3. Define the continous compound interest.

   Continuous compound interest is a formula for loan interest where the balance <u>grows continuously</u> over time, rather than being computed at discrete intervals.

4. Briefly explain following terms:

   a. Amortizing loans

      Amortizing loans are loans where the borrower makes regular payments over the loan term, consisting of both *principal* and *interest*. These payments are structured to gradually reduce the outstanding balance of the loan until it is fully paid off by the end of the term.

   b. Real interest rate

      The real interest rate is adjusted value of nominal interest considering inflation. It represents the actual purchasing power gained or lost by an investor or borrower after accounting for the effects of inflation.

   c. Term structure

Term structure refers to the relationship between the maturity dates of bonds or other fixed-income securities and their yields. It depicts how interest rates vary across different maturities. The term structure is often graphically represented by the yield curve.

d. Yield curve / inverted yield curve

   The yield curve is a graphical representation of the term structure, plotting the yields of bonds with different maturities against their respective maturity dates. It typically slopes upward, indicating that longer-term bonds have higher yields than shorter-term ones.

   An inverted yield curve occurs when short-term interest rates are higher than long-term rates, resulting in a downward-sloping yield curve. Inverted yield curves are often seen as a potential indicator of an economic downturn.

e. Cost of capital.

   The cost of capital is the weighted average cost of the funds a company uses to finance its operations. It represents the return that investors expect to receive for providing capital to the company, whether through equity or debt.