

## TIME VALUE OF MONEY

**Compound Interest:**  $(1+i)^n$  where “i” is the periodic **Interest Rate** and “n” is the number of periods that are **Compounded**.

**Compounding:** Approach to taking a **Present Value** to a **Future Value**:

$$\text{Future Value (FV)} = \text{Present Value} \times (1+i)^n$$

**Discounting:** Approach to taking a **Future Value** back to **Present Value**:

$$\text{Present Value (PV)} = \text{Future Value} \div (1+i)^n$$

**Annuities (PMT):** Investments with constant future **Periodic Payments**.

**Interest Rate (i), Effective Yield, Internal Rate of Return (IRR):** Various measures of the **Return on Capital** or the **Cost of Capital**.

**Net Present Value (NPV):** The **Present Value** of all **Projected Future Cash Flows** discounted at a specified **Discount Rate**, less the cost of the **Investment**.

**Internal Rate of Return (IRR):** The calculated **Discount Rate** at which the **Present Value** of all **Projected Future Cash Flows** is equal to the cost of the **Investment**.

**Risk:** Is essential to evaluate in order to determine whether the expected **Investment Return** is sufficient in light of the perceived **Risk**.

n	i	PV	PMT	FV
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