

# 3 - Time Value of Money - ch. 3

Q course	MGMT 170
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<ul><li>created</li></ul>	@April 5, 2023 10:07 AM
<ul><li>updated</li></ul>	@June 15, 2023 10:07 AM
	MGMT 170: Real Estate Finance
Ø URL	
tags     tag	

#### **Definitions**

- ▼ Interest Rate (i), effective yield, and IRR (internal rate of return)
  - ▼ aa measure of the ROC (Return on capital) or Cost of Capital

## **Big Ideas**

### **▼** Compound Interest

- $\blacktriangledown (1+i)^n$
- lacktriangledown i is the periodic interest rate; n is the number of periods compunded
- **▼** Compounding (PV)

#### Resources

https://s3-us-west-2.amazonaws.c om/secure.notion-static.com/4181 2573-c0ee-4f15-95ea-975ebbeef4 90/TIME\_VALUE\_OF\_MONEY\_-Chapter\_3.pdf ▼ Getting FV from PV

$$FV = PV \cdot (1+i)^n$$

- **▼** Discounting (FV)
  - ▼ Getting PV from FV

$$PV = FV \div (1+i)^n$$

- **▼** Annuities (PMT)
  - ▼ Investments with constant future periodic payments
- **▼** Investment Metrics: NPV, IRR, Risk
  - **▼** Net Present Value (NPV)
    - ▼ Present value of all <u>projected</u>
      <u>future cash flows</u> discounted at a
      Discount Rate:
    - ▼ MINUS/LESS the cost of investment
  - ▼ Internal Rate of Return (IRR)
    - ▼ Discount rate at which:
    - ▼ PV of all <u>projected future cash</u>
      <u>flows</u> = cost of investment
  - **▼** Risk
    - ▼ a metric to determine whether expected return is worth the cost of capital in the perceived risk

## **SUMMARY**