



# Income Approach

Overview of Income Models  
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# Income Approach Models

- Direct Capitalization
- Yield Capitalization

# Direct Capitalization

- Direct capitalization converts an estimate of a single year's income expectancy into an indication of value in one step.
- Value = Income / Rate
- Value =  $\text{NOI}_1 / D_0$

# Yield Capitalization

- Yield capitalization calculates the present value of the anticipated future income by discounting cash flows using the yield rate.



# Yield Capitalization

## Discounted Cash Flows (DCF)

- Uses explicit forecasts of cash flows.
- $$\text{Value} = \text{NCF}_1 / (1+Y_0)^1 + \text{NCF}_2 / (1+Y_0)^2 + \text{NCF}_3 / (1+Y_0)^3 + \dots + \text{NCF}_n / (1+Y_0)^n$$

# Yield Capitalization

## DCF with reversion

- When you do not have forecasts into perpetuity.
- Value =  $\text{NCF}_1 / (1+Y_0)^1 + \text{NCF}_2 / (1+Y_0)^2 + \text{NCF}_3 / (1+Y_0)^3 + ((\text{NCF}_3 * (1+g) / (Y_0-g)) / (1+Y_0)^3)$

# Yield Capitalization

## Stable Growth Yield Capitalization

- Used when the forecasted growth in net cash flows is stable or when explicit forecasts of net cash flows are not available.
- Value =  $NCF_1 / (Y_0 - g)^1$



# Yield Capitalization

## 0% Growth Yield Capitalization

- The model can be reduced further if the growth rate is assumed to be 0%.
- $\text{Value} = \text{NCF}_1 / (\text{Y}_0 - 0\%)^1$
- $\text{Value} = \text{NCF}_1 / (\text{Y}_0)^1$

# Yield Capitalization

## 0% Growth Yield Capitalization

- If:
  - Net Cash Flows = Net Operating Income
  - Growth = 0%
- Then:
- $\text{Value} = \text{NCF}_1 / (Y_0 - 0\%)^1$
- $\text{Value} = \text{NOI}_1 / (Y_0 - 0\%)^1$
- $\text{Value} = \text{NOI}_1 / Y_0$

# Which is the best?

## Direct Cap

- $V = I / R$
- $V = \text{NOI}_1 / D_0$

## Yield Cap

- $V = \text{NCF}_1 / (1+Y_0)^1 + \text{NCF}_2 / (1+Y_0)^2 + \text{NCF}_3 / (1+Y_0)^3 + \dots + \text{NCF}_n / (1+Y_0)^n$
- $V = \text{NCF}_1 / (1+Y_0)^1 + \text{NCF}_2 / (1+Y_0)^2 + \text{NCF}_3 / (1+Y_0)^3 + ((\text{NCF}_3 * (1+g)) / (Y_0-g)) / (1+Y_0)^3$
- $V = \text{NCF}_1 / (Y_0 - g)^1$