A Real Estate Investor's Guide
To Valuing Multi-Family Real Estate Using Cap Rates

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Real estate can be valued or appraised using three different methods:

1. **<u>The Cost Approach</u>** – The cost to replace or reproduce the improvements plus land cost. This method is typically used for valuing new construction.

2. **<u>The Sales Comparison Approach</u>** – Comparison of other recently sold properties that are comparable in size, quality, and location to the subject property.

3. **<u>The Income Approach</u>** – An objective estimate of what a prudent investor would pay for the property based upon the net operating income the property produces.

The **Income Approach** is used most in estimating the value of multi-family real estate investments because they are income-producing assets owned by investors seeking financial returns on their investments.

The **Income Approach** is driven by the formula:

$$\mathbf{V = NOI \div i}$$

V	=	Value
NOI	=	Net Operating Income
i	=	Capitalization Rate or "Cap Rate" (Return on Investment)

Net Operating Income (NOI) is the net income (before mortgage payments) derived from operating the property. The following financial statement illustrates how Net Operating Income is calculated:

Calculating a Property's Net Operating Income

Description	\$500 Ave. Rent	\$525 Ave. Rent
Gross Scheduled Rental Income (50 units x 12 months x monthly rental rate)	\$300,000	\$315,000
Less: Vacancy & Credit Losses	15,000	15,000
Plus: Other Income	10,000	10,000
Gross Operating Income (GOI)	\$295,000	\$310,000
Less: Operating Expenses		
Administrative Expenses	15,000	15,000
Leasing Expenses	15,000	15,000
Maintenance Expenses	30,000	30,000
Real Estate Taxes	50,000	50,000
Insurance	5,000	5,000
Utilities	10,000	10,000
Total Operating Expenses	\$125,000	\$125,000
Net Operating Income (NOI)	**\$170,000**	**\$185,000**
Less: Annual Debt Service (P & I)	\$125,000	\$125,000
Cash Flow	\$45,000	\$60,000

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It is important to note that Annual Debt Service (Principle and Interest) is not an operating expense. It is a debt or financial expense paid from the property's net operating income. Depending upon an investor's risk tolerance level, properties can have varying levels of debt – or no debt at all.

The **Capitalization Rate or "Cap Rate"** is the percent annual return given a specific investment or property value. **It is the net operating income of the property divided by its value.** Technically, it is the weighted averaged cost of capital, both debt and equity, invested in an income producing asset.

Knowing any two of the three components of the formula V = NOI ÷ i will allow you to solve for the third. Following are variations of the formula:

NOI = Value x i	**i =NOI ÷ Value**	**V = NOI ÷ i**

The following chart will help you understand the relationship between Value, NOI, and Cap Rates:

Net Operating Income	Cap Rate	Value
$100,000	8.00%	$1,250,000
$105,000	8.00%	$1,312,500
$110,000	8.00%	$1,375,000
$120,000	8.00%	$1,500,000
$125,000	8.00%	$1,562,500
$100,000	6.00%	$1,666,667
$100,000	7.00%	$1,428,571
$100,000	8.00%	$1,250,000
$100,000	9.00%	$1,111,111
$100,000	10.00%	$1,000,000
$25,000	7.50%	$333,333
$25,000	7.75%	$322,581
$25,000	8.00%	$312,500
$25,000	8.25%	$303,030
$25,000	8.50%	$294,118
$120	7.50%	$1,600
$240	7.75%	$3,097
$360	8.00%	$4,500
$600	8.25%	$7,272
$1,200	8.50%	$14,118
$1,000,000	8.00%	$12,500,000

- As cap rates decrease, values increase. As cap rates increase, values decrease.
- Cap rates are affected by changes in mortgage interest rates and changes in required returns on equity.

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To further your understanding of the relationship between value, net operating income, and cap rates, please complete the following chart:

Value	Net Operating Income	Cap Rate
$1,000,000	$100,000	
	$100,000	10.00%
$1,000,000		10.00%
$500,000	$40,000	
	$40,000	8.00%
$500,000		8.00%
$250,000	$18,750	
	$18,750	7.50%
$250,000	$18,750	
$100,000	$5,000	
	$5,000	5.00%
$100,000		5.00%
	$2,250	9.00%
	$1	10.00%

A. A Property Manager achieves a $100,000 growth in NOI over the previous year. Properties are selling at 8.00% cap rates. How much value did he or she create?

B. A market study shows that the rental market will pay $40 per unit more per month than is currently being achieved. When all 30 of a manager's apartments achieve the increase, how much value will have been created assuming an 8.25% cap rate?

C. An extremely well-trained and motivated maintenance team reduces maintenance costs an average of $100 per unit per year for each of its 240 apartments. Properties in that marketplace are selling at 7.50% cap rates. How much value did this maintenance team create?

D. A property is refinanced. There is no change in the interest rate, but the payment is reduced since the loan is now amortized over 30 years instead of 22. How much value did the refinance create?

Answers: A. $1,250,000 B. $180,000 C. $320,000 D. No value created.