The Top 10 Metrics Every Real Estate Investor Should Know (and Why)

Confidence in your rental business strategy—especially in times of economic volatility—can make you a better, savvier investor during challenging market cycles. And it all starts with these important metrics.

With insights from Brad Cartier, Thomas Castelli and Patrick Carlisle
Key Investing Metrics We'll Explore

1 | Net Operating Income (NOI)
2 | Cap Rate
3 | Internal Rate of Return (IRR)
4 | Cash Flow
5 | Cash on Cash Return (CoC)
6 | Gross Rent Multiplier (GTM)
7 | Loan to Value (LTV)
8 | Debt Service Ratio (DSCR)
9 | Operating Expense Ratio (OER)
10 | Vacancy Rate (PVR and EVR)
There’s more to choosing an investment property than its purchase price and potential rents.
METRIC #1

Net Operating Income

NOI tells you how much money you'll make from a given investment property.
How to calculate Net Operating Income

To calculate NOI, take your total income and subtract operating expenses only. The below figures are for monthly income and expenses.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Rental Property Income</td>
<td>$12,000</td>
</tr>
<tr>
<td>Property Manager</td>
<td>- $900</td>
</tr>
<tr>
<td>Insurance</td>
<td>- $250</td>
</tr>
<tr>
<td>Legal Fees</td>
<td>- $150</td>
</tr>
<tr>
<td>Maintenance</td>
<td>- $300</td>
</tr>
<tr>
<td>Taxes</td>
<td>- $2,000</td>
</tr>
<tr>
<td>Utilities</td>
<td>- $550</td>
</tr>
</tbody>
</table>

| NOI                          | $7,850 |
Q: What are some of the operating and capital expenses you think landlords can consider pausing or cutting back on during recessionary housing markets?

A: Ultimately, vacancy is the biggest “expense” in a down market, so keeping tenants and re-renting vacant apartments quickly is key. Most other expenses are relatively fixed, and smart landlords already manage them firmly. Of course, if your older building still has central heat, changing it to separately metered heat is almost always a worthwhile investment.
Exhibit A: Chris' Net Operating Income

We can look at the Wisconsin property's NOI both on a monthly and annual basis.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Change</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Value</td>
<td>$291,851</td>
<td>$72,851↑</td>
<td>33.3%</td>
</tr>
<tr>
<td>Income</td>
<td>$2,150</td>
<td>Annual</td>
<td></td>
</tr>
<tr>
<td>Net Operating Income</td>
<td>$1,405</td>
<td>Annual</td>
<td></td>
</tr>
<tr>
<td>Cash Flow</td>
<td>$604</td>
<td>Annual</td>
<td></td>
</tr>
<tr>
<td>Occupancy</td>
<td>100%</td>
<td>Fully Occupied</td>
<td></td>
</tr>
<tr>
<td>GRM</td>
<td>11.31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Cap Rate

Cap Rate is the ratio between the amount of income produced by a property to the original capital invested (or its current value). It tells you the percentage of the investment’s value that’s profit.
How to calculate Cap Rate

Cap Rate is the Net Operating Income divided by the Asset Value (current or at acquisition).

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Income</td>
<td>$9,000</td>
</tr>
<tr>
<td>Property Management</td>
<td>- $900</td>
</tr>
<tr>
<td>Maintenance</td>
<td>- $450</td>
</tr>
<tr>
<td>Taxes</td>
<td>- $710</td>
</tr>
<tr>
<td>Insurance</td>
<td>- $650</td>
</tr>
<tr>
<td><strong>NET OPERATING INCOME</strong></td>
<td>= $6,290</td>
</tr>
<tr>
<td><strong>ASSET VALUE</strong></td>
<td>/ $40,000</td>
</tr>
<tr>
<td><strong>CAP RATE</strong></td>
<td>= 0.157 or</td>
</tr>
</tbody>
</table>
Exhibit A: Chris' Cap Rate

Let's take a look at the Wisconsin rental property as an actual example.

Capitalization Rate

$271,684

5.7%

Update

Vacancy Assumption

3%

Update
Internal Rate of Return

IRR estimates the interest you’ll earn on each dollar invested in a rental property over its holding period.
How to calculate Internal Rate of Return (IRR)

Start by setting the net present value (NPV) of the property to zero and use projected cash flows for each year you plan on holding the building.

\[ NPV = \sum_{n=0}^{N} \frac{C_n}{(1+r)^n} = 0 \]

**NPV: Set to 0**

- **N**: The number of years the investment is held
- **CFn**: Current cash flow at that stage in the formula
- **n**: Current period at that stage in the formula
An example of IRR

You purchase a single family rental with $150,000 cash. You intend to hold onto the property for five years. Cash flow for the five years, in order, is $35,000, $55,000, $47,000, $50,000, and $49,000.

In this case, your IRR formula would look like:

\[
NPV = -150,000 \\
+ 35,000/(1+IRR)^1 \\
+ 55,000/(1+IRR)^2 \\
+ 47,000/(1+IRR)^3 \\
+ 50,000/(1+IRR)^4 \\
+ 49,000/(1+IRR)^5 \\
= 0
\]

Running those numbers through the calculator, you’re left with an Internal Rate of Return of 16.574%.
Why is IRR so important?

**CLARITY**
IRR is a single percentage number that incorporates a number of different elements.

**VISION**
For real estate investors who plan on holding properties for the long-term, IRR captures total gains over time.

**TIMING**
An IRR calculation helps the investor decide how long to hold onto the property before selling.
Metric #4

Cash Flow

Cash Flow your net cash left at the end of the month after you’ve received your rents and paid your expenses.
How to calculate Cash Flow

Net cash flow is simply Rental Income minus Expenses.

- Rent: $2,000
- Expenses: -$1,200
- Net Cash Flow: $800
Exhibit A: Chris' Cash Flow

Let's take a look at the Wisconsin house's Cash Flow.

Net Cash Flow by Month
Cash on Cash Return

Cash on Cash metric is how much money you’re earning off your cash invested.
How to calculate Cash on Cash Return

Take your annual before-tax Cash Flow (but after all debt service) and divide by the Total Cash invested.

\[
\text{Annual Cash Flow (after debt service)} \div \text{Total Cash Invested (money down, repairs, expenses, etc)} = \text{Cash on Cash Return}
\]
How is CoC Return different from Cash Flow?

Cash-on-cash return is different from cash flow in two ways:

**Cash-on-Cash is a percentage**
Whereas cash flow is expressed as a dollar amount.

**Cash Flow is how much money you’ll have after expenses**
Whereas cash-on-cash tells you what kind of return you’re receiving for the total amount invested (acquisition equity plus subsequent equity infusions).
One example of CoC Return

Let's consider a property purchased for $50,000 down with $10,000 annual cash flow after debt service.

\[
\frac{\$10,000}{\text{Annual Cash Flow after debt service}} \times \frac{\$50,000}{\text{Money Down}} = 20\% \quad \text{Cash on Cash Return}
\]
Another Example of CoC

Property purchased for $250,000 all cash + $50,000 in repairs and $25,000 annual cash flow.

$25,000 / ($250,000 + $50,000) = 8.3%

Annual Cash Flow
Cash Down
on Repairs
Cash on Cash Return
Exhibit A: Chris' Cash on Cash Return

Let's look at actual CoC financial data for the Wisconsin SFH.

Cash On Cash Return

20.0%

Trailing 12-month cash on cash return
$43,800 Cash In
Gross Rent Multiplier

Gross Rent Multiplier or GRM helps investors compare buildings and roughly determine a building’s worth.
How to calculate GRM

GRM is calculated by dividing the property’s market value by its annual gross rental income

\[
\frac{\$1,150,000}{\$150,400}
\]

(\text{current market value for SFH in Piedmont, CA})

= 7.6

(annual gross rental income)
Exhibit A: Chris' GRM

Dashboard for 5213 Kevins Way

- Market Value: $291,851
- Return: 33.3% (Appreciation: Levered, Annualized: $72,851)
- Effective Cap Rate: 5.78%
- GRM: 11.31
METRIC #7

Loan to Value Ratio

LTV measures the amount you’ll need to finance against the property’s current fair market value.
How to calculate LTV Ratio

To calculate an LTV ratio, divide the amount of the loan by the appraised value of the asset securing the loan.

\[
\frac{\text{Loan Amount}}{\text{Asset Value}} = \text{Loan to Value Ratio}
\]

(What percentage the dollar amount of the loan is of the total value of the property.)
Example of LTV

Assume you want to buy a property worth $100,000. You have $20,000 available for a down payment, so you'll need to borrow $80,000.

\[
\frac{\$80,000}{\$100,000} = 0.80
\]

Your LTV ratio will be **80%** because the dollar amount of the loan is 80% of the value of the property.
Exhibit A: Chris' LTV

Let's look at our single family home's loan to value ratio.

Loan-to-Value

Value: $291,851
Debt: $171,923

1 Loan

+ Add Another Loan
METRIC #8

Debt Service Coverage Ratio

DSCR compares the operating income you have available to service debt versus your overall debt levels.
How to calculate DSCR

Divide your net operating income by debt payments, on either a monthly, quarterly, or annual basis, to get your DSCR.

\[
\frac{\text{Net Operating Income}}{\text{Debt Payment}} = \text{DSCR}
\]
Why is DSCR important?

“If you don’t have enough income to cover the debt, then it’s not a good investment for you or the bank.”

..95

1.1

1.4

NOT GOOD

FAIR

VERY GOOD
An example of DSCR

A real estate developer needs a loan and indicates that her NOI is $25,000 and the lender notes that the Debt Service will be $13,500 per year.

\[
\frac{\text{\$ NET OPERATING INCOME}}{\text{\$ DEBT SERVICE}} = \text{DSCR}
\]

\[
\frac{25,000.00}{13,500.00} = 1.85
\]
Exhibit A: Chris' DSCR

DSCR is most helpful when calculated annually.
METRIC #9

Operating Expense Ratio

OER is a measure of profitability, telling you how well you’re controlling expenses relative to income.
How to calculate Operating Expense Ratio

Take all operating expenses, less depreciation, and divide them by operating income to get OER.

\[
\frac{\text{Operating Expenses \ (Less Depreciation)}}{\text{Operating Income \ (Gross Income)}} = \text{Operating Expense Ratio}
\]

*Did You Know?* OER is one of the few ratios used by investors which includes depreciation, which makes it more inclusive of the property costs.
Pro Tip: Thomas Castelli
Certified Public Accountant, the Real Estate CPA

“If you look at the Operating Expense Ratio— instead of the raw operating expense figures you get from the P/L—you have actionable, digestible data to work from.”
Castelli's Example of OER in Action

You own 4 rental properties in the same market but they are all different sizes (SFH, MF, etc). You receive a profit and loss statement from your accountant for each property.
Castelli's Example of OER in Action

Operating expenses for each property:

Property A - $1,500
Property B - $2,400
Property C - $1,325
Property D - $3,245
Castelli's Example of OER in Action

Since all these properties are different sizes, it doesn’t tell you much. OER is a much more valuable metric:

Property A – 41%
Property B – 39%
Property C – 63%
Property D – 41%
Castelli's Example of OER in Action

Which of these OERs is not like the other?

“Property C's utility bill is too high”
Castelli's Example of OER in Action

The utility cost / unit for Property C is above average so you investigate.

BEFORE: Leaking Pipe
AFTER: OER is 25% lower
Exhibit A: Chris' OER

Expenses for May: $835. Income for May: $2,150. OER = 39% (Low)

<table>
<thead>
<tr>
<th>Category</th>
<th>Actual (TTM)</th>
<th>Actual (May)</th>
<th>Pro Forma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admin &amp; Other</td>
<td>-</td>
<td>-</td>
<td>$0</td>
</tr>
<tr>
<td>Legal &amp; Professional</td>
<td>-</td>
<td>-</td>
<td>$0</td>
</tr>
<tr>
<td>Insurance</td>
<td>-</td>
<td>-</td>
<td>$75</td>
</tr>
<tr>
<td>Management Fees</td>
<td>-</td>
<td>-</td>
<td>$0</td>
</tr>
<tr>
<td>Repairs &amp; Maintenance</td>
<td>$8</td>
<td>-</td>
<td>$75</td>
</tr>
<tr>
<td>Property Taxes</td>
<td>-</td>
<td>-</td>
<td>$420</td>
</tr>
<tr>
<td>Other Taxes</td>
<td>-</td>
<td>-</td>
<td>$0</td>
</tr>
<tr>
<td>Utilities</td>
<td>$11</td>
<td>$34</td>
<td>$175</td>
</tr>
<tr>
<td>Mortgages &amp; Loans</td>
<td>$801</td>
<td>$801</td>
<td>$801</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$821</strong></td>
<td><strong>$835</strong></td>
<td><strong>$1,546</strong></td>
</tr>
</tbody>
</table>
Vacancy Rate

This rate gives you the percent of your units vacant when compared to the total units available.
How to calculate Physical Vacancy Rate

PVR is calculated by taking the number of vacant units multiplied by 100, then divided by the total number of units. This metric can be useful on a property by property basis, or across your entire portfolio.

\[
\frac{(\# \text{ Vacant Units} \times 100)}{\text{Total \# of Units}}
\]

When doing your proforma calculations, it’s always smart to include a vacancy buffer in your calculations (10% annual vacancy buffer is good)
How to calculate Economic Vacancy Rate

This is non-payment of rents. A unit is not vacant, but you aren’t getting rents, so it’s considered economically vacant. Use the same calculation as PVR.

\[
\frac{(\# \text{ Vacant Units} \times 100)}{\text{Total \# of Units}}
\]

When doing your proforma calculations, it’s always smart to include a vacancy buffer in your calculations (10% annual vacancy buffer is good)
Exhibit A: Chris' Vacancy Rates

We can look at the Wisconsin property's PVR and ECR both on a monthly and annual basis.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Bed/Baths</th>
<th>Tenant Names</th>
<th>Rent</th>
<th>Deposit</th>
<th>Move-In</th>
<th>Lease Expires</th>
<th>Market Rent</th>
<th>Docs</th>
<th>Recent Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cottage</td>
<td>1 / 1</td>
<td>Irma Renter</td>
<td>$850</td>
<td>$850</td>
<td>09/01/19</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>$850 06/01/20</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:irenter@zmail.com">irenter@zmail.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main House</td>
<td>4 / 2</td>
<td>Lando Walker</td>
<td>$1,300</td>
<td>$1,300</td>
<td>09/01/19</td>
<td>08/31/20</td>
<td>Add</td>
<td>Add</td>
<td>$1,300 06/04/20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dog named &quot;R2&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Exhibit B: Stress Test Your Portfolio

“Use a Stress Test report to model different rent collection scenarios across your portfolio. This will help you determine if you are prepared to weather a sizable reduction in rent collection in the months to come.”

- DEVIN REDMOND, REAL ESTATE INVESTOR AND HEAD OF CUSTOMER SUCCESS AT STESSA
In Conclusion

Knowing these metrics makes you a savvier investor and shows partners and lenders that you understanding investing “best practices.”
What is Stessa?

Stessa empowers the millions of real estate investors with rental properties to optimize their portfolios for performance. Finally, investors have a quick and easy way to track, manage and grow their real estate assets with confidence. Unlock personalized money-making insights by signing up and connecting your bank account today.

Sign up for free today at www.stessa.com.
Q & A

1. What is a good COC Return?

2. What's a good Cap Rate?

3. Of these 10 metrics, which 3 are most important and why?

4. Are you including vacancy factor and reserve in DSCR, most banks will?

5. Are we sending out the presentation after the webinar? (yes)
Thank You

Questions about this webinar? Please reach out at support@stessa.com and we'd be happy to assist you.