

## Financial Analysis Examples - Page 1

### YEAR 2012 Pro-Forma

|                                |         |    |     |          |            |
|--------------------------------|---------|----|-----|----------|------------|
| Loan assumptions for analysis: | PV      | I  | N   | PMT      | SALE PRICE |
|                                | 220,500 | 7% | 180 | 1,981.92 | 245,000    |
| 10% down payment               |         |    |     |          |            |

|                            |                             |                         |
|----------------------------|-----------------------------|-------------------------|
| PGI                        | (Potential Gross Income)    | 141,372                 |
| - V+C (3%)                 | (Vacancy & Collection loss) | < 4,241 >               |
| <u>- Other Expenses</u>    |                             | <u>0</u>                |
| Effective Gross Income     |                             | 137,131                 |
| <u>- Operating Expense</u> |                             | <u>&lt; 46,121 &gt;</u> |
| NOI                        | (Net Operating Income)      | 91,010                  |
| <u>- Debt Service</u>      |                             | <u>&lt; 23,783 &gt;</u> |
| BTCF                       | (Before Tax Cash Flow)      | 67,227                  |

|              |   |
|--------------|---|
| <u>± Tax</u> | Tax = (NOI - Depreciation - Interest + Reserve for Replacements) x Tax Rate |
| ATCF         | (After Tax Cash Flow)   |

$$\text{NOI} - \text{Depr} - \text{Int} + \text{RR} = \text{Taxable Income}$$

$$\frac{\text{X Tax Rate}}{\text{Tax Liability}}$$

### How to Use Calculation Formulas to Compute the below Ratios

|           |                       |
|-----------|-----------------------|
| <u>A</u>  | <u>50</u>             |
| B   C     | 135   .37             |
| A / B = C | -----> 50 / 135 = .37 |
| A / C = B | -----> 50 / .37 = 135 |
| B X C = A | -----> 135 X .37 = 50 |

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Overall Capitalization Rate (ROI)

$$\frac{\text{NOI}}{\text{R}^\circ \mid \text{PV}} = \frac{91,010}{245,000} = 37\% \text{ ROI}$$

(Cap Rate) (Present Value)

R° = Return on Investment

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Operating Expense Ratio

$$\frac{\text{OE}}{\text{OER} \mid \text{EGI}} = \frac{46,121}{37,131} = 33.6 \text{ OER}$$

(Effective Gross Income)

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Debt Service Coverage Ratio

$$\frac{\text{NOI}}{\text{DSCR} \mid \text{DS}} = \frac{91,010}{23,783} = 3.83 \text{ DSCR}$$

(DCR)

NOI is 3.83 times the annual debt amount

\* Banks want 1.3 or higher

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Cash on Cash Return  
Equity Dividend Rate

$$\frac{\text{BTCF}}{\text{CCR} \mid \text{Equity}} = \frac{67,227}{220,500} = 2.74 \text{ EDR}$$

(EDR)

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Cash Breakeven Ratio

(Operating expense + debt service - reserve for replacement)

$$\frac{\text{OE} + \text{DS} - \text{RR}}{\text{CBR} \mid \text{PGI}} = \frac{(46,121) + (23,783) - (0)}{141,372} = .49 \text{ CBR}$$

CBR = Occupancy rate producing BTCF of 0

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Rate of Return on Investment (%)

$$\frac{\text{Stockholders' Equity}}{\text{BTCF}} = \frac{24,500}{67,227} = 36.4\% \text{ ROI (Before Income Tax)}$$

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Debt to Equity Ratio

$$\frac{\text{TOTAL LIABILITIES}}{\text{Stockholders' Equity}} = \frac{220,500}{24,500} = 9\% \text{ DER}$$

This is the amount of debt to equity. Debt is \$ 9.00 for each \$1.00 of equity.

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Margin of Safety

$$1.00 - \text{Cash Breakeven Ratio} = \_\_% \quad 1.00 - .49 = 51\% \text{ Margin of Safety}$$

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Loan Constant (*k*)

$$\frac{\text{Annual Debt Service}}{k \mid \text{Orig Mtg Principal}} = \frac{23,783}{220,500} = .1078 k$$

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Gross Rent Multiplier      This is an unreliable way to value property as it does not consider operating expenses.  
Can be calculated using monthly or annual figures.

$$\frac{\text{PRICE}}{\text{GRM} \mid \text{Gross Rent}} = \frac{150,000}{15,000} = 10 \text{ GRM}$$

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Loan to Value Ratio

$$\frac{\text{LOAN AMT}}{\text{L/V} \mid \text{VALUE}} = \frac{220,500}{245,000} = .90 \text{ LTV}$$

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Debt to Income Ratio

Home buyer unrelated example

$$\frac{\text{PITI} + \text{EXPENSES}}{\text{Income}} \quad | \quad \% \text{ Debt Ratio}$$

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$$\frac{925}{2,500} = 37\% \text{ Debt Ratio}$$

Vacancy & Collection Ratio

$$\frac{\text{V\&C}}{\text{VCR} \quad | \quad \text{PGI}}$$

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$$\frac{4,241}{141,372} = 3\% \text{ VCR}$$

EBITDA Earnings before interest, taxes, depreciation, amortization