

Financial Analysis Examples - Page 1

YEAR 2010 Pro-Forma

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

		141,372
PGI	(Potential Gross Income)	
- 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>< 46,121 ></u>
NOI	(Net Operating Income)	91,010
<u>- Debt Service</u>		<u>< 23,183 ></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)

NOI - Depr - Int + RR = Taxable Income

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

How to Use Calculation Circles 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

Financial Analysis Examples - Page 2

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

Operating Expense Ratio

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

(Effective Gross Income)

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

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)

Cash Breakeven Ratio

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

CBR = Occupancy rate producing BTCF of 0

Financial Analysis Examples - Page 3

Rate of Return on Investment (%)

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

Debt to Equity Ratio

$$\frac{\text{TOTAL LIABILITIES}}{\text{Debt to Equity Ratio (\%) | Stockholders' Equity}} = \frac{220,500}{24,500} = 9\% \text{ DER}$$

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

Margin of Safety

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

Loan Constant (*k*)

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

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

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

Loan to Value Ratio

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

Financial Analysis Examples - Page 4

Debt to Income Ratio

Home buyer unrelated example

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

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

Vacancy & Collection Ratio

$$\frac{\text{VC}}{\text{VCR} \quad | \quad \text{PGI}}$$

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

EBITDA Earnings before interest, taxes, depreciation, amortization