Schweser Study Program

Real Estate

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Forms of Real Estate Investment

Outright Ownership

Leveraged Equity Position

Mortgages

Aggregation Vehicles (REITs)

Methods of Valuation

Cost Method (summation method)

Land + Improvements - Depreciation = Value

Sales Comparison Method

Income Method (capitalisation of net income)

Gross Potential Rent - Property Operating Expenses = Net Operating Income (NOI)

$$\text{Market Value} = \frac{\text{Net Operating Income}}{\text{Market Capitalization Rate}}$$

Discounted After Tax Cash Flow Model

Income Approach

A suburban apartment building with a Gross Potential Income of $27,000, Property Rates and Taxes are $2,300, Property Operating Expenses (insurance, maintenance, etc) are $3,750 and building has a vacancy rate of 4.5%.

Market capitalization rate is 9.75%, What is the value?

Income Approach

An office building is being offered for sale for $400,000 it currently has an income of $60,000 and Property Operating Expenses are $9,500 and Property Rates and Taxes are $3,000. You consider a good investment should have a capitalization rate of 12%, would you buy this property?

Sales Comparison Approach

A 45,000 square foot property has a 5% vacancy rate and is located 2 miles from downtown. Your market analysis has determined the following characteristics. What is the value.

Characteristics	Units	Slope Coefficients in $ per Unit
Proximity to Downturn	In miles	-60,000
Vacancy Rate	Percentage	-28,000
Building Size	Square feet	43

Value = (-60,000 x 2) + (-28,000 x 0.05) + (43 x 45,000)

= -120,000 + -1,400 + 1,935,000

= 1,813,600

Investment Analysis

A property was purchased for $1,850,000 with borrowings of $1,480,000 at 10%. Annual repayments are $156,997. The investor’s tax rate is 28% and the interest rate is fully deductible. The NOI is $197,500. Annual depreciation is $45,000 on a straight line basis.

What is the after tax cash flow, the net present value and the yield of the investment.

In three years time the investor sells the property for $1,950,000, the remaining mortgage balance was $1,450,000. The cost of equity was 10% and the net cash flows for the investment are Year 1: $57,237, Year 2: $60,099, and Year 3: $563,104 (year of sale net of mortgage payoff).