
Problem 1. Effect of Leverage on BTIRR

You can buy the City Select building for $10,000,000 that has fixed leases in place for a least the next 5 years providing a constant NOI of $700,000. You can get a bullet loan at 6% with no points. You expect to sell this building for a net sales price of $11,000,000 5 years from now.

What is the BTIRR with no leverage?
What is the BTIRR with 50% leverage?
What is the BTIRR with 75% leverage?
What is the BTIRR with 90% leverage?

Problem 2. ATCF from Building Operations

You have purchased a multi tenant office building for $15,000,000. Your acquisition costs associated with this purchase are $25,000. The estimated land value is $3,000,000, of which you estimate the depreciable land portion at $1,000,000. You estimate the 7 year property at a value of $2,000,000. You have arranged a 70% LTV, 7 year mortgage at a 5.25% interest rate with 2 points and a 25 year amortization period. Your projected NOI in the next two years is $1,200,000 and $1,250,000 which includes projected CAPEX (above line) of $100,000 and $102,000. Your marginal tax rate is 43.4%.

What is your debt service for the first 2 years?
What is your BTCF for the first 2 years?
What is your interest expense for the first 2 years?
What is your land depreciation for the first 2 years?
What is your 7-year depreciation for the first 2 years?
What is your building depreciation for the first 2 years?
What is your amortized finance cost for the first 2 years?
What is your taxable income for the first 2 years?
What is your tax due for the first 2 years?
What is your ATCF for the first 2 years?
Problem 3. ATCF from Building Sale

You are selling your building for $18,000,000, with 4.5% in selling costs. You have taken $3,000,000 in depreciation and put $600,000 into capital improvements over the period you owned the building, which you purchased for $15,000,000 and incurred $25,000 in acquisition costs. Your original loan was for $10,500,000 which you took out 5 years ago, with a 5.25% interest rate with a 25 year amortization period. Depreciation recapture tax rate is 28.8% and capital gains tax rate is 23.8%.

What is your selling expense?
What is your net selling price?
What is your loan payoff?
What is your BTCF from sale?
What is your adjusted basis?
What is your gain on sale?
What is your depreciation recapture tax?
What is your capital gain tax?
What is your total tax on sale?
What is your ATCF from sale?