

Southport Financial

2507 Post Road
Southport, Connecticut 06890 USA
+1-203-255-3434

Multifamily Boot Camp

The Economics of Investing in Multifamily Rental Apartments

Typically, we buy apartment communities containing 200 to 350 apartments but, to make the analysis easier to follow, let's work with a property of 100 individual apartments. We will call it Meadow Ridge.

We agree to purchase Meadow Ridge which was built five years ago. It is a three-story property with excellent amenities, including a swimming pool, hot tub, 24-hour gym, Starbucks coffee bar, package lockers, fire pit and barbecue area, jogging and nature trail, modern kitchens and lighting, valet trash collection, storage units, covered parking, and electronic locking and security.

The average apartment is 1,100 square feet with 9 foot ceilings, a charging station, and designed to accommodate sharing arrangements.



We start with some simplified assumptions so that we can think about the economics:

- We purchase the community for \$10,000,000 or \$100,000 per individual apartment. This includes transaction costs including any brokerage commissions.
- Rents are \$833/month or \$10,000/year. For simplicity of calculation, occupancy is 100%.
- The cash equity needed is 20%, or \$2,000,000 and we borrow \$8,000,000 at an interest rate of 4.39%, 10 year term, 30 year amortization. This means that our annual debt service (interest plus amortization) will be constant at 6% or \$480,000, every year. Investments of this type are typically leveraged (borrowed against) in the range of 60% to 85%.

- Income and expenses increase at an annual rate of 2%. About the rate of inflation in a normal year. Expenses in this type of property are very predictable from year to year.
- Property expenses will be 40% of income, including an allowance for necessary capital improvements and refurbishment. This is a typical ratio for this type of property.
- We have purchased the property at a 6% Cap Rate (capitalization rate, meaning that the property after all expenses yields 6% cash flow before paying debt service).

Let's look at the numbers in the first year: (There is a spreadsheet on page 4 summarizing the numbers). Income is \$1,000,000. Deduct expenses of \$400,000 and the net operating income (NOI) is \$600,000. This is 6% of the purchase price of \$10,000,000 (what we call a 6% Cap Rate).

When we deduct the annual interest and amortization of \$480,000 (debt service, including \$348,400 of interest and \$131,600 of amortization), the cash left over is \$120,000. Not surprisingly, this is a 6% return on the \$2,000,000 of cash equity invested by our investor group.

Okay, now let's look at the numbers after five years of operation: Income and expenses have gone up at 2% each year but the amount we pay to the lender, our debt service, has stayed the same.

Here are the numbers: Income is now \$1,082,400. Deduct expenses of \$433,000 and the net operating income (NOI) is \$649,400. This is 6.49% of the purchase price, so our Cap Rate has gone up from 6.00% to 6.49%.

When we deduct the debt service of \$480,000 (the same as in the first year) the cash left over is \$169,400. Our return or yield on the cash equity invested is now **8.47%**.

Sale after five years: If we now decide to sell the property at a price that will yield the buyer the same 6% Cap Rate as we paid five years earlier, we could sell it for \$10,823,300 net of transaction costs (NOI of \$649,400 divided by 6%). But we have been paying amortization and reducing the balance of the loan, so we now owe just \$7,280,200 instead of the original \$8,000,000 we borrowed.

This means our net cash from the sale is **\$3,543,100** (\$10,823,300 - \$7,280,200). Remember, we put up \$2,000,000 five years earlier and have been getting cash flow of 6% growing to 8%, each year. So, now our investor group has nearly doubled its original cash investment while getting steady and increasing annual cash flow. Translated into an internal rate of return (IRR), this is **17.84%**.

Magic? No magic here, just the way this type of investment works. We made the modest assumption of an annual increase in income and in costs of 2%. We assumed a borrowing (interest) rate a bit higher than the current rate but, including amortization, equal to the Cap Rate. If our borrowing costs had been lower, the return to our group would have been correspondingly higher.

For simplicity, we also assumed keeping the occupancy at a constant 100%. If we had assumed that we could start with lower occupancy, say 89%, and increase it to 93%, the returns to our group would have been higher. If we had been able to increase the rents by more than 2%

annually (2% is a modest \$17/month increase), we could have improved our overall return. For example, we might have built in an allowance to improve each unit with quartz countertops and laminate floors in the dining areas. The typical apartment lease is one year so there is an opportunity to implement at least modest rent increases every year.

The Mechanics: The mechanics are simple. If expenses are 40% of income (which is a typical ratio), and both income and expenses are increasing at 2% annually, then the net operating income (the difference between the two) keeps increasing. Further, the debt service is staying the same, so that extra money falls right to the bottom line and becomes increased cash flow.

There are three additional factors that enhance this type of investment:

1. **Use of Depreciation.** We can deduct depreciation from the property income which reduces the taxes we pay on the annual cash flow. In the example we are using, it reduces the expected taxes by between 50% and nearly 100% each year. For instance, the cash flow in the first year (\$120,000) is nearly entirely tax free (depreciating the buildings, not including land, over 27.5 years). When the property is sold, having used that annual depreciation will increase the tax at sale proportionately. This recapture of depreciation will sometimes be at a rate less than an investor's normal tax rate on earned income but higher than the capital gains rate.
2. **Taxation.** The profit on sale is taxed at the capital gains rate which is less than the tax rate on earned income.
3. **Amortization.** Each monthly debt service payment on the mortgage amortizes or reduces the principal of that mortgage so we owe less. In a sense, this is an invisible return. In our example, the amortization (annual reduction of the debt) is about 6.5% to 7.5% of the invested cash equity, effectively doubling the annual return on equity from 6%+ to 12%+.

Conclusion: Now we all know that investments don't always work out and lots of things can go wrong. We might be unable to retain occupancy and rent levels, there might be unexpected expenses, the market for selling this type of property might evaporate, we might be bad managers.

Here though, in these multifamily investments, there are so many positive factors working in our favor that the overall effect is an enhanced probability of excellent and trouble free returns.

There is also the possibility of much higher returns if results exceed our very conservative assumptions.

Meadow Ridge Apartments

Cost	10,000,000				
Borrowing	<u>8,000,000</u>				
Cash Equity	2,000,000				
Year	1	2	3	4	5
Income	1,000,000	1,020,000	1,040,400	1,061,200	1,082,400
Expense	<u>400,000</u>	<u>408,000</u>	<u>416,200</u>	<u>424,500</u>	<u>433,000</u>
NOI	600,000	612,000	624,200	636,700	649,400
Interest	348,400	342,500	336,300	329,900	323,100
Amortization	<u>131,600</u>	<u>137,500</u>	<u>143,700</u>	<u>150,100</u>	<u>156,900</u>
Debt Service	480,000	480,000	480,000	480,000	480,000
Cash Flow	120,000	132,000	144,200	156,700	169,400
Return on Equity	6.00%	6.60%	7.21%	7.84%	8.47%
Sale Price					10,823,300
Mortgage Balance					<u>7,280,200</u>
Net from Sale					3,543,100
IRR Calculation:					
-2,000,000	120,000	132,000	144,200	156,700	169,400
					<u>3,543,100</u>
<u>-2,000,000</u>	<u>120,000</u>	<u>132,000</u>	<u>144,200</u>	<u>156,700</u>	<u>3,712,500</u>
				IRR	17.84%