

Table 1: Single Unit Profit Model

A model for calculating various KPIs (the blue shaded cells), such as vacancy rate, rent growth rate, etc and profitability measured by IRR (Internal Rate of Return), for a single investment property. The investment involves purchasing equity in an apartment building, operating the property for a 5 year “hold” period during which operating income is received, measured by EBT (Earnings Before Taxes), and then selling the building and recovering the equity and any capital gains on the appreciation of the property value.

The cells shaded in green are values from the Buildings data table. The first 5 rows of the yearly data are values from the Financials data table. Initial Equity and Equity Reversion are values from the Equity data table. The cells shaded blue, orange, and gray contain formulas which you might find helpful in understanding the model.

Note: Interest & Depreciation is estimated at a fixed rate of 5% of Net Operating Income

Unit Number	845258		Year 1	Year 2	Year 3	Year 4	Year 5
City	New Hope	Potential Annual Gross Rental Income	\$ 2,540,220	\$ 2,692,633	\$ 2,854,191	\$ 3,025,442	\$ 3,206,969
Building Class	B	Lost Rent Allowance	\$ (287,768)	\$ (305,034)	\$ (323,336)	\$ (342,736)	\$ (363,301)
Number of Studio Units	37	Effective Gross Income	\$ 2,252,452	\$ 2,387,599	\$ 2,530,855	\$ 2,682,706	\$ 2,843,668
Number of 1 Bedroom Units	61	Operating Expenses	\$ 1,050,216	\$ 1,113,229	\$ 1,180,023	\$ 1,250,824	\$ 1,325,874
		Net Operating Income	\$ 1,202,235	\$ 1,274,369	\$ 1,350,832	\$ 1,431,881	\$ 1,517,794
		Interest & Depreciation	\$ 60,112	\$ 63,718	\$ 67,542	\$ 71,594	\$ 75,890
Year 1 Monthly Studio Rent	\$ 1,729	EBT (Before Tax Cash Flow)	\$ 1,142,124	\$ 1,210,651	\$ 1,283,290	\$ 1,360,287	\$ 1,441,905
Year 1 Monthly 1 Bedroom Rent	\$ 2,421	Initial Equity	\$ (20,406,489)				
Rent CAGR	6.0%	Equity Reversion					\$ 22,300,182
Vacancy Rate	11.3%	Total BTCF	\$ (19,264,365)	\$ 1,210,651	\$ 1,283,290	\$ 1,360,287	\$ 23,742,086
Operating Expense Ratio	46.6%	Before-tax IRR					10.2%
Rent CAGR	6.0%						
Equity Value Growth	9.3%						

For reference: building 845258 rows from Buildings, Financials and Equity data tables.

Buildings	City	Building ID	Class	Studio Units	1-Bedroom Units	Studio Rent	1-Bedroom Rent		
	New Hope	845258	B	37	61	\$ 1,729	\$ 2,421		
Financials	City	Building ID	Class	Year	Gross Rental Income	Lost Rent	Effective Gross Income	Operating Expenses	Net Operating Income
	New Hope	845258	B	1	\$ 2,540,220	\$287,768	\$ 2,252,452	\$ 1,050,216	\$ 1,202,235
	New Hope	845258	B	2	\$ 2,692,633	\$305,034	\$ 2,387,599	\$ 1,113,229	\$ 1,274,369
	New Hope	845258	B	3	\$ 2,854,191	\$323,336	\$ 2,530,855	\$ 1,180,023	\$ 1,350,832
	New Hope	845258	B	4	\$ 3,025,442	\$342,736	\$ 2,682,706	\$ 1,250,824	\$ 1,431,881
	New Hope	845258	B	5	\$ 3,206,969	\$363,301	\$ 2,843,668	\$ 1,325,874	\$ 1,517,794

Equity

City	Building	Initial Equity Investment	Equity Reversion
New Hope	845258	\$ 20,406,489	\$ 22,300,182

Table 2:**Buildings**

A list of 300 investment properties, 100 in each of 3 cities: Fairview, New Hope and Springfield) that can be used for historical data for the analysis.

City	Building ID	Class	Studio Units	1-Bedroom Units	Studio Rent	1-Bedroom Rent
Fairview	365743	B	40	36	\$ 1,904	\$ 2,666
Fairview	526013	C	43	25	\$ 1,171	\$ 1,640
Fairview	768416	A	35	40	\$ 2,435	\$ 3,409
Fairview	424555	A	26	61	\$ 2,677	\$ 3,747

Column	Description
City	The city in which the building is located (Fairview, New Hope, Springfield)
Building ID	A 6-digit unique identifier for each building
Class	The Class of the building (A, B, C) A = Luxury, B = Mid-range, C = Affordable
Studio Units	Number of Studio apartments in the building
1-Bedroom Units	Number of 1 Bedroom apartments in building
Studio Rent	Monthly rent for Studio apartments in Year 1 for building
1-Bedroom Rent	Monthly rent for 1 Bedroom apartments in Year 1 for building

Table 3: Financials

A flat data file containing the figures for the first 5 rows of the single unit model (**Table 1**) for all 300 investment properties.

City	Building ID	Class	Year	Gross Rental Income	Lost Rent	Effective Gross Income	Operating Expenses	Net Operating Income
Fairview	365743	B	1	\$ 2,065,901	\$ 152,634	\$ 1,913,268	\$ 1,069,644	\$ 843,623
Fairview	365743	B	2	\$ 2,169,196	\$ 160,265	\$ 2,008,931	\$ 1,123,127	\$ 885,805
Fairview	365743	B	3	\$ 2,277,656	\$ 168,279	\$ 2,109,378	\$ 1,179,283	\$ 930,095
Fairview	365743	B	4	\$ 2,391,539	\$ 176,693	\$ 2,214,846	\$ 1,238,247	\$ 976,599
Fairview	365743	B	5	\$ 2,511,116	\$ 185,527	\$ 2,325,589	\$ 1,300,159	\$ 1,025,429
Fairview	526013	C	1	\$ 1,096,325	\$ 80,638	\$ 1,015,687	\$ 656,503	\$ 359,184
Fairview	526013	C	2	\$ 1,151,141	\$ 84,669	\$ 1,066,472	\$ 689,328	\$ 377,143
Fairview	526013	C	3	\$ 1,208,698	\$ 88,903	\$ 1,119,795	\$ 723,795	\$ 396,001

Column	Description
City, Building ID, Class	Same definitions as Table 2
Year	The year in which the data was realized (Year 1 – Year 5)
Gross Rental Income	Potential rent revenue for the building at full occupancy Gross Rental Income = 12 * (number of units * rent for each unit) Rent CAGR = (Year 5 Rent)/(Year 1 Rent)^{.25} - 1
Lost Rent	Rent revenue lost due to vacancy Vacancy Rate = Lost Rent / Gross Rental Income
Effective Gross Income	Gross Rental Income – Lost Rent
Operating Expenses	Annual fixed and variable costs incurred in the building's operations Operating Expense Ratio = Effective Gross Income / Operating Expenses
Net Operating Income	Effective Gross Income – Operating Expenses

Table 4: Equity

A flat data file containing the Initial Equity and Equity Reversion for all 300 investment properties.

City	Building	Initial Equity Investment	Equity Reversion
Fairview	365743	\$ 27,181,418	\$ 29,046,195
Fairview	526013	\$ 26,196,792	\$ 28,200,143
Fairview	768416	\$ 27,222,925	\$ 29,023,195
Fairview	424555	\$ 20,956,206	\$ 22,282,070
Fairview	192939	\$ 25,161,006	\$ 26,622,216
Fairview	103727	\$ 23,204,677	\$ 24,769,158

Column	Description
City, Building ID	Same definitions as Table 2
Year	The year in which the data was realized (Year 1 – Year 5)
Initial Equity Investment	The purchase price of the building in Year 1
Equity Reversion	The sale price of the building in Year 5 Equity Value Growth = Equity Reversion / Initial Equity Investment -1