

DR BOUTIQUE HOTEL & RESIDENCES

Guidance for Students

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Introduction

Purpose

The financial model for Real Estate demonstrates some key assumptions in developing financial modeling for real estate and how financial and operational results could be presented (Figure 1). The target audience includes real estate professionals in public and private entities, government agencies, and other organizations. The approach selected here is one of many potential variations of financial modeling; it is neither superior nor universal, just a point of departure for learning.

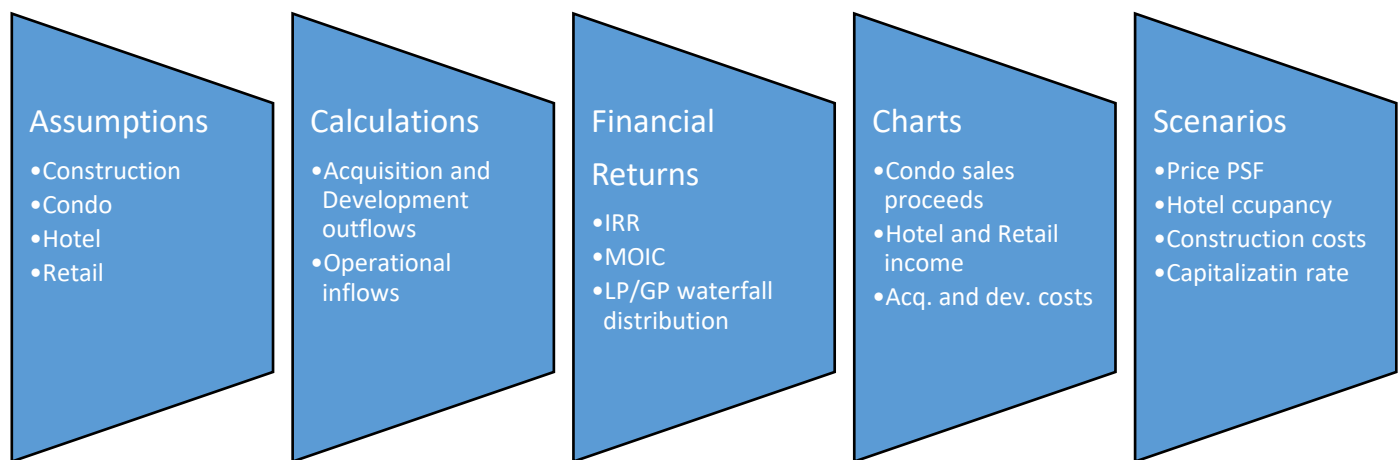


Figure 1. Basic Model Structure

User requirements

Model users should be proficient in Microsoft Excel and financial analysis of real estate operations. More experienced financial modelers can calibrate the model to their specific needs, and with practice, even novice users can learn model structure and logic.

Basic steps

This model includes no default values or data from an existing real estate entity; instead, model users are expected to have access to recent financial and operational data for the entity they are examining. To begin, model users define the project and enter all available historical financial and operational data, plus assumptions (Figure 2). The model will then generate a set of results, including forecast cash flow, IRR, and summary statistics with tools for users to test a range of scenarios.

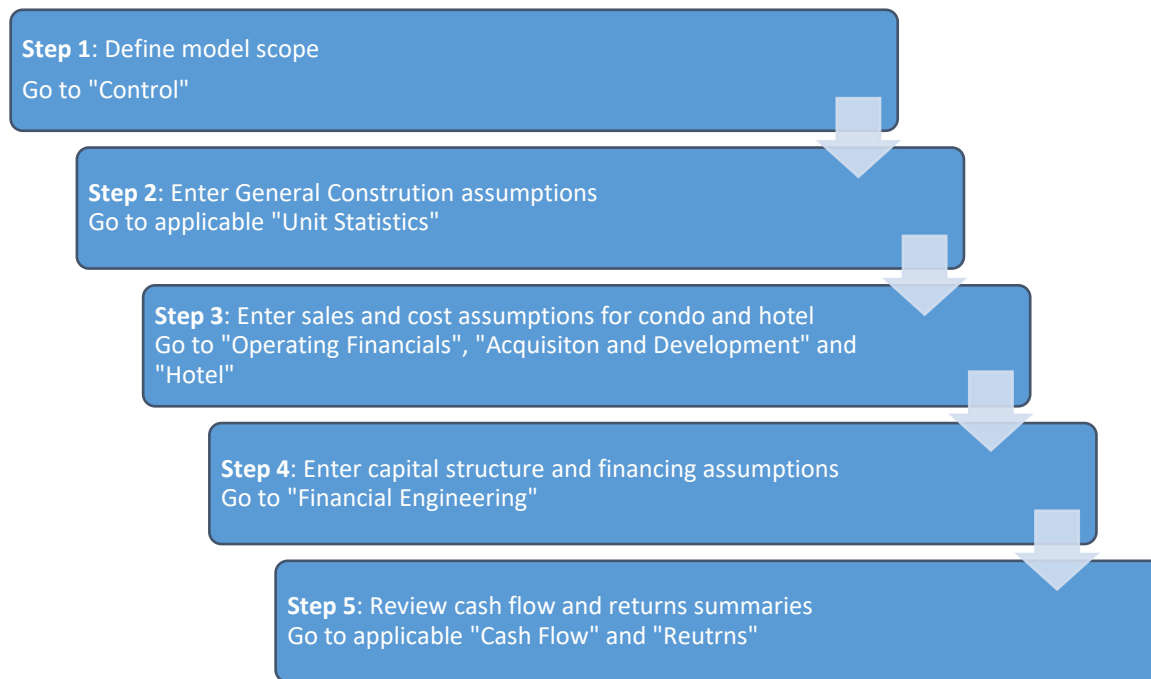


Figure 2. Basic steps in using the financial model

General Assumptions

Control

To define general model assumptions, users enter data in the control section for length, frequency, and currency denomination.

Model users can freely select any starting and ending dates within a 10-year period. The frequency must also be set out as yearly, quarterly, or monthly.

Specific Assumptions

Unit Information

Separate unit assumptions exist for condo, hotel, and retail portions of a project. Initial unit size information can be entered here along with certain projection calculations being performed for smaller segments such as retail.

Operating Financials

Condominium Inflows

Users first enter velocity assumptions for condominium sales which will drive other inflow calculations including deposits and closings. The receipt of deposits is set out based on fixed dates entered of when the deposits will be received. This is an important assumption as deposits can be used in the financing section to fund the project.

Closings are shown in the following section and driven based on a fixed closing date. This is also where users enter the average price per square foot which is a main driver of condominium inflows and has the ability to be sensitized later in the model. Lastly, assumptions for any other revenue such as parking and lockers are entered and driven based on the sales velocity.

Retail Inflows

This model assumes that retail will be a relatively small portion of the overall real estate project. Therefore the retail inflow outputs are based directly on net income and the assumptions entered in unit information. The retail is assumed to be sold at the end of the modeling period based on a capitalization rate set out in unit information.

Hotel Inflows and Outflows

Since hotel and condominium inflows and outflows are based on different drivers, hotel is a separate section from condominium. Revenue driving assumptions for hotel include occupancy and average daily revenue per room and are entered in the “Hotel Inflow” section. Other sources of revenue including phone and food & beverage are also entered here.

Outflows associated with the hotel include items such as administration, utilities, sales & marketing, and insurance. These outflow assumptions are entered as a percentage of gross revenue along with the timeframe they are expected to be incurred.

Finally once all cost information has been entered, net income for the hotel is calculated. The hotel portion is assumed to be sold at the end of the modeling period based on the previous 12 months of net income and a capitalization rate specified in the unit information section. Depending on the size of the hotel in relation to the overall project, these assumptions can have a large effect on the overall return.

Acquisition and Development Outflows

Acquisition and closing costs relate to outflows which occur before the development and hard cost stage. These costs generally include items such as land, insurance, and mortgage related fees. Most of the costs follow the same basic input formula where the total amount is entered along with the date the outflow will occur.

Generally the largest outflows will occur in the hard cost stage. This includes predevelopment charges, permit & design fees, and development costs. Data is inputted in a similar way for most charges in that the full amount is entered along with the time period the charges are expected to occur. Since these costs represent a significant

portion of the overall project outflow, certain key assumptions are able to be sensitized later in the model. The hard cost section includes both condominium and hotel development charges.

Soft costs are not directly related to the overall construction of the project but still comprise a significant portion of the overall project outflows. Examples of soft costs include marketing, commissions, and legal costs. Soft costs follow a similar data entry as hard costs with the full amount entered along with the time period the cost is expected to occur. Some soft costs include a second input for the initial amount of the total cost with the rest of the amount charged over the time period entered.

After all acquisition and development assumptions have been entered the model aggregates these under the “Total Outflows” section.

Financial Engineering

The financial engineering section is where users input information relating to the financing of the project. Calculations are then run to output the amount and timing of the required financing.

The first section is related to debt and includes several potential loans such as land loans and general debt financing. Initial assumptions such as the amount, repayment profile and interest rate are set out here with the model performing all necessary calculations.

One key financing assumption available in the model is the construction loan. Rather than a set amount to be used, the construction loan is drawn down as the project requires funds. The cash requirement is based on the total outflows section that was calculated earlier in the model. The drawdown and repayment amounts are also based around the amount of equity contribution and deposit financing.

The deposit financing section can be a key determinant of the outside financing requirements for the project as a whole. The deposit financing is dependent on when deposits are received and how much of this can be used in the financing of the project. The deposit amount to be used is based on a certain percentage of construction and contingency costs.

Finally the equity financing section is fairly simple allowing for an initial starting equity contribution and drawdowns subsequent to this. The amount and timing of the equity disbursement is determined in the deposit financing section which is in turn based on the cash requirements of the project and the amount of other financing available. Once the debt is paid down the project begins disbursing all remaining cash flow to the equity holders.

Cash Flow

The cash flow section summarizes all of the above calculations in a format that allows the user to easily see the cash inflow and outflow amounts throughout the modeling period. This concludes to an equity drawdown and disbursement section and finally investor returns. This is calculated using the sum of hotel and retail net inflows along with equity disbursement minus the equity drawdown.

Returns

The return section begins with a sources and uses schedule requiring an input for the amount of contributed equity while the other items are calculated from the previous sections. The model then calculates several IRRs based on the equity assumptions inputted and the overall return structure of the particular project. For this model these return sections are project, joint venture, limited partner, and general partner.

In this model LP and GP returns are further subdivided through a waterfall structure that is set out by the investors of the joint venture. This section can vary depending on the terms of agreement that establishes how joint venture cash flow is distributed. For example, this could include the LP getting a guaranteed hurdle rate and return of investment while the GP will get an annual management fee.

Model Summary

The summary section is where the final calculations and outputs from the model are shown. It is conveniently set up to be printed as a one or two page summary document. The final output sections are “Control”, “Unit Information”, “Sources and Uses”, “Purchase Price and Development Analysis”, “Projected Revenue”, “Investor Returns Summary”, “Capital Structure Assumptions”, “Waterfall Structure”, “Hotel Operating Costs”, “Projected Returns Summary”, and “Hotel and Retail Profitability”.

After the initial summaries are three data tables and several key model drivers that can be sensitized. This is an important part of the model and different scenarios should be run to find what the main drivers are of a particular project as well as having a full analysis with both upside and downside scenarios. To make this analysis easier there are several charts which will automatically generate from an offset key at the end of the model. The charts show cash flow, gross sales proceeds, hotel and retail net income, total acquisition and development costs, financial engineering, and cash-on-cash returns. These charts can be used in conjunction with the sensitivity values and other summary information to quickly show the results of various scenarios on the overall investor returns and profitability of the project.