### Introduction

Financial modeling is the task of building an abstract representation (a model) of a real world financial situation. This is a mathematical model designed to represent (a simplified version of) the performance of a financial asset or portfolio of a business, project, or any other investment.

Typically, then, financial modeling is understood to mean an exercise in either asset pricing or corporate finance, of a quantitative nature. It is about translating a set of hypotheses about the behavior of markets or agents into numerical predictions.

At the same time, "financial modeling" is a general term that means different things to different users; the reference usually relates either to accounting and corporate finance applications, or to quantitative finance applications.

While there has been some debate in the industry as to the nature of financial modeling whether it is a tradecraft, such as welding, or a science the task of financial modeling has been gaining acceptance and rigor over the years.

##### Financial Modeling Using Excel

Financial modeling helps us to analyze overall financial health of a company. In the current technology age, financial modeling has become the buzz word and automation is the key in today’s fast paced corporate world. With the numbers becoming complex, financial modeling has become time consuming, monotonous and exhaustive.

With the use of computer software, you can do large complex calculations within fraction of seconds. You just have to click a button on the computer screen and it’s all done! But it is not that simple. It takes a lot of effort and time to build one such financial model to work on. You have to understand the basic concepts of finance, financial modeling; and, at the same time you have to be well versed with the software. You need to learn the relevant commands, functions and algorithm in excel.

##### What is Financial Modeling?

Financial modeling is designed to represent the financial portfolio of a firm, project, assignment or any other investment or performance of the financial assets of a firm. The model consists of performing various calculations about historic data and making recommendations for future actions.

It helps summarize specific events of the company for the end user to take decisions regarding future plan of action and deciding alternatives. It is the task of building a model or an abstract representation of a real world financial situation. In simple terms, Financial Modeling is interpreting the historical data to make future decisions.

##### What is the process of Financial Modeling?

You need to understand the process of financial modeling before learning to use excel for the same. The aim of financial modeling is to evaluate risk for various purposes. So it should be focused on key cash-flow drivers. It must convey the assumptions and conclusions related to the financial health of the firm. The process of financial modeling is as follows.

* + Financial information about the company is gathered and its performance is analyzed using various financial parameters.
  + This analysis is useful in building financial model for the company which is inevitable for projecting future financial performance of the company.
  + On the basis of this financial model, companies and investors can evaluate the company.
  + This financial analysis is very useful in various investment areas such as equity research and banking industry that assist equity research firms, project finance, financial advisory firms and investment bankers to make correct financial decisions.

##### What are the advantages of using excel for Financial Modeling?

You can take your business and career to a higher level with the help of accurate and robust financial models. Nowadays everyone communicates through Excel language in the corporate world and you are also expected to be skilled and updated in this field. Microsoft Excel has become the first and foremost choice of finance professionals to carry out finance research activities.

The financial model building process involves many interrelated calculations. Excel offers various user friendly financial analytical tools to make this process easier. Financial modeling process is made manageable using exceptional features of excel. Excel identifies and tracks all the linkage points involved in the calculations across the financial modeling process. Excel enables the user to test assumptions underlying financial models. Also it makes convenient for the user to run accurate sensitivity analysis. Professionals can share, distribute and consolidate the financial models with ease.

The basic tools used for financial modeling include common size financial statements, trend and pattern analysis, analysis of various ratios and industrial comparatives. Excel is used for such lengthy and complex calculations to avoid any calculation mistakes. Excel is used to interlink the formulas wherever required. So when the input changes, the result or the outcome will also change automatically. It reduces hassles at every stage of calculations.

### What is Corporate Finance?

Corporate Finance deals with the **financial and funding activities** of corporations. Usually a department within the organization is dedicated to overseeing and managing these activities. Long-term and short-term financial planning is adopted in order to **maximize shareholder value** and **implement strategy.** Without solid financial strategies in place, it is impossible to achieve overall business strategies.

##### What are Finance Activities?

Many activities fall under the domain of corporate finance, making it a **fundamental department** within an organization. For example:

* + **Forecasting** where the business’ money will come from
  + Knowing where the business’ money is **located**
  + Helping the organization’s managers to decide **how they will spend** their financial assets in ways that will ensure the biggest return
  + **Examine** cash flow, profitability and expenses
  + Examine how the organization can **free up capital, increase profit, and decrease expenses**
  + Usually the department managing corporate finance in an organization will have to be consulted before another department makes a big spend to ensure that it is feasible
  + Evaluating the **best growth plan** for the organization

##### What do Corporate Finance Excel Models aim to do?

Spreadsheet language allows the financial modeler to reconstruct almost any cash flow or revenue stream.

A **Corporate Financial model** will aim to capture all the variables in a particular event. Spreadsheet (or Microsoft Excel) is usually the main tool used to create financial models.

This is because they **quantify the variables** of the event and create formulas around them. As well as this, the language used in spreadsheet allows the financial modeler to **reconstruct cash flows or revenue streams.** The result is a mathematical depiction of the event for analyst usage. The analyst will use these models for:

* + Business valuation
  + Scenario preparation
  + Capital calculations
  + Resource allocation
  + Forecast projections

###### INCOME STATEMENT

The income statement is a simple and straightforward report on a business' cash-generating ability. It's an accounting scorecard on the financial performance of your business that reflects quantity of sales, expenses incurred and net profit. It draws information from various financial categories, including revenue, expenses, capital (in the form of depreciation) and cost of goods.

By combining these elements, the income statement illustrates just how much income your company makes or loses during the year by subtracting cost of goods and expenses from total revenue to arrive at a net result, which is either a profit or a loss. An income statement differs from a cash flow statement, because unlike the latter, the income statement doesn't show when revenue is collected or when expenses are paid. It does, however, show the projected profitability of the business over the time frame covered by the plan. For a business plan, the income statement should be generated on a monthly basis during the first year, quarterly for the second and annually for the third.

An income statement lists financial projections in the following format:

* + **Income** includes all revenue streams generated by the business.
  + **Cost of goods** includes all the costs related to the sale of products in inventory.
  + **Gross profit margin** is the difference between revenue and cost of goods. Gross profit margin can be expressed in dollars, as a percentage, or both. As a percentage, the gross profit margin is always stated as a percentage of revenue.
  + **Operating expenses** include all overhead and labor expenses associated with the operations of the business.
  + **Total expenses** are the sum of cost of goods and operating expenses.
  + **Net profit** is the difference between gross profit margin and total expenses. The net income depicts the business' revenues and debt.
  + **Depreciation** reflects the decrease in value of capital assets used to generate income. It's also used as the basis for a tax deduction and an indicator of the flow of money into new capital.
  + **Earnings before interest and taxes** show the capacity of a business to repay