Warning: This course is not optimized for Mac Versions of Excel

Modeling Financial Statements

Course Descriptions and Syllabus

Your instructor

Professor:	Julian Yeo
Email:	jyeo@stern.nyu.edu
Consultation hours:	By appointments

Course Descriptions

Overview

Forecasting financial statements is critical for many business disciplines. Though financial projections are rarely perfect, a good flexible and dynamic financial model enables the users to consider different scenarios (typically predicated by historical and anticipated results) and various variables that could potentially lead to different business decisions.

The course is designed to equip you with the skills to design, build and present your interactive financial models from scratch. By the end of the course, you should have the ability to understand, analyze, and model spreadsheet-based pro-forma financials for equity valuation purposes as well as for other business contexts. This course synthesizes your knowledge in financial statement analysis, corporate finance, and valuation.

Part I: Building financial models for various decision contexts
In Part I of the course, we exploit (i) the linkages between financial statements and (ii) the accounting constructs (that tie financial variables together) in building flexible and dynamic financial models for various decision making contexts. Contexts that we examine include managing working capital, budgeting for start-up businesses, evaluating strategy, forecasting financial statements. Part I of the course concludes with us building a dynamic financial model that projects the financial statements and their supporting schedules for a publicly listed company.

Part II: Financial modeling for equity valuation
In Part II of the course, we focus on financial models commonly used for equity valuation purposes. The valuation models we examine include Relative Valuation model, Discount Cash Flow model, Residual Income Valuation model as well as Abnormal Earnings Growth model.

In order to design your valuation model, we need to first gain the knowledge of how financial metrics are mapped into stock prices. Through the development of these valuation models from first principles (yes, in this course, we will derive all the models!), we are able to synthesize, compare and contrast the different valuation models (e.g., Dividend Discount

Model, Free Cash Flows Model, Residual Income Valuation Model, Abnormal Earnings Growth Model). It is also through the derivation of these models, we are able to pinpoint the relationships (or lack of) between various accounting variables (such as book value, earnings, EBITDA, etc) and intrinsic values. To the extent that stock prices and intrinsic values deviate, we will have a better appreciation of multiples such as P/B, P/E, PEG and other ratios that involve stock prices.

This course introduces a new procedure in inferring future financial metrics you need to see from a publicly listed company based on the stock price you are paying. Your dynamic valuation model will enable you to identify and quantify how changes in particular factors (e.g., business risk factors, business outlook or affiliation with related companies) will impact a company's stock price. You will assess whether future performance, as implied by the current stock price, is attainable using the dynamic valuation model that you build in formulating your buy/sell/hold decision.

Course Materials

There is no prescribed textbook for this course. Learning objectives will be illustrated through a series of class exercises. You may access all course materials including class exercises and solutions to class exercises on NYU Classes.

You may access a detailed listing of the sequence of topics, related materials and related spreadsheets via NYU Classes. Do not forward or share materials with others.

Assessments

Your final grade is calculated based on:

Class Exercises (only the ones you are asked to submit)	10%
Mid-Term Exam	30%
Group Presentation	30%
Final Exam	30%

Tentative Class Schedule

Week	Topics
Part I: Building financial models for various decision contexts	
1. 2/5 & 2/7	Intro to Financial Modeling - Modeling overview - Modeling and equity valuation overview - Modeling best practice - Excel best practice and shortcuts
2. 2/12 & 2/14	Modeling Working Capital Management - Short-term liquidity - Receivable/Payable/Inventory management
3. 2/19 & 2/21	Modeling Start-up Businesses - Start-up budgeting - Presenting financial models - Tools for start-up businesses
4. 2/26 & 2/28	Building financial forecasts - Set up - Modeling operating performance - Modeling asset intensity
5. 3/5 & 3/7	Building financial forecasts (cont.) - Modeling debt - Modeling taxes
6. 3/12 & 3/14	Building financial forecasts (cont.) - Modeling equity method investment - Modeling non-controlling interest holders - Modeling equity and number of shares
7. **3/26 & 3/28**	**Mid-Term Exam**
8. 4/2 & 4/4	Forecasting statements – a comprehensive case - 7 steps in building financial statements for a selected listed company
Part II: Financial modeling for equity valuation	
9. 4/9 & 4/11	Connecting Financial Modeling with Equity Valuation - Stock price and accounting variables - Implementing Dividend Discount Model - Implementing relative valuation (price-multiples) - Implementing Asset-based Valuation Model
10. 4/16 & 4/18	- Implementing Discounted Cash Flow Valuation Model - Implementing Residual Income Valuation Model • Introduction and implementation • Reverse engineering

11. 4/23 & 4/25	Implementing Abnormal Earnings Growth Model - Introduction and implementation - Reverse engineering - Understanding P/E and PEG ratios Formulating buy/sell/hold decision using dynamic financial model
12. 4/30 & 5/2 & 5/7	**Group Presentations**
13. 5/9	**Final Exam**