“Fundamental Analysis for Investors, Managers and Entrepreneurs”

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Course Description and Objectives

Most of the decisions of analysts, consultants, entrepreneurs, investors and managers require us to look ahead and assess an uncertain future. In this class, you will learn a differentiated approach to decision making that will help you consider the fundamentals of enterprises and how to link these fundamentals to underlying measures, which in turn will help you make better investment or management decisions. Students who have taken this course often comment on how it has transformed their thinking and understanding of companies. It also serves as a useful “capstone” to the MBA program as we draw on what was taught in most core courses.

In developing this line of reasoning and performing the analysis, we consider how to think about a new business as well as a publicly traded company. Having considered the basic building blocks, we next examine how the business resources and activities are translated into financial statements (whether for an early stage or public company) and consider what we learn from financial statements. We consider the extensive information increasingly available from outside sources, including various websites as well as Bloomberg and CapIQ. We also consider how certain accounting measures and practices impact the measures of the key elements of the business.

**IMPORTANT:** While you will be able to use the approach to analyze a public company for your assignments and final project, you can (and students in the past have) also use private companies ranging from startups to family businesses, or use internal data of public companies or their subsidiaries if you have access to this information.

Focusing on the future, we take a **different approach** to many topics/concepts that are covered in various ways in other financial statement analysis, earnings quality, and security analysis and valuation classes. Many students take this course as well as other seemingly similar courses, and we have **never** received any feedback that the coverage in this course is redundant, irrespective of the other courses taken by students.

We will focus on understanding how entities create or destroy value for various stakeholders and what it would take to change this, how to consider uncertainty more explicitly in plans, and whether this fundamental value is reflected in the price or not (for entities that it applies to).

We will also take some time each week to address any topics that are in the financial press that bear on the subjects and the approach.
Graded Learning

The only way you will internalize the information in the course is by actually preparing a forecast (plan) of the business that allows you to see the impact of different potential outcomes.

In the assignments, you will be asked to analyze some of the key aspects (e.g., revenue, labor, etc.) of the public company, Chipotle (following the framework provided in the class) on a group basis. You will work in groups of 2 to 3 (LARGER SIZES WILL NOT BE ACCEPTED). For each topic area of the assignments, you will also prepare a base forecast for a minimum of two years into the future. However, feel free to talk with each other or with others to help you maximize your learning.

For the final project, you can pick a company of your choosing. However, for the final project, you will individually make sure all the elements of your semester’s work are linked appropriately in your model, and add the extra topics not covered in the assignments (e.g., taxes) plus your own individual perspective on the original forecasts (as explained in text).

Ideally the entity you choose to analyze will be one that you are interested in understanding deeply, e.g. the company (or a company in the industry) you work for/cover (or a customer, client or competitor), your family business, or perhaps a startup that you are developing.

The grades will be based on your engagement in the class, the assignments, and the final deliverable but we will have no exams.

What you will get out of this

Every student who puts in effort should walk away with an approach and concepts that you can use in almost any business or position in which you find yourself. It is usually a fun and stimulating journey for students.

Is financial expertise critical?

The course presumes that you have a solid understanding of the subject matter covered in B6000 and other core courses. We have had many students who have no additional financial accounting or finance backgrounds, and by investing in their learning, they end up with H or even H+ grades. So, while financial analysis expertise may be helpful it is not necessary at all.

Required Text and Readings

1. Weekly handouts/posts on Canvas substitute for a course packet

2. There is no required text. Business Planning, Financial Statement Analysis and Valuation texts can be helpful but in certain topics each of them will argue for approaches that are at odds with what I am teaching.

3. There will also be additional references provided for those students who want to get more background and a deeper understanding of some of the technical accounting aspects of any topic, but this is not required.
**Grading**

There will be approximately 6 written assignments, which will relate to the materials discussed and their application to an actual company (see p 7). These assignments will be done by your group using the Type A assignment scheme (see below) and cover 60% of the grade. 5% of your grade will be based on your attendance at class and your preparation and understanding of the company analysis for your discussions with me, and 35% will be based on the final project, which will also follow Type B in the assignment scheme. *A passing grade on the final project is necessary to pass the class.*

I do not intend to grade on a curve for this course. I believe in merit-based grades so would be delighted to give everyone an H, but I also give low or failing grades to anyone who does not put in the effort and does not demonstrate an understanding of what we cover.

**TA**

The TA is Nan Li, his email is NLi18@gsb.columbia.edu. You can communicate with Nan via email to discuss the course and assignments. **You should also copy me on all correspondence.**

**Office Hours:** By appointment

**Relation to the Core:**
This course incorporates elements of every core class.

**This course adheres to Columbia Core Culture. Students are expected to be:**

**Present:**
- On time and present for every session
- Attendance tracked

**Prepared:**
- Complete pre-work needed, expect cold calling
- Bring nameplates and clickers

**Participating:**
- Constructive participation expected and part of grade
- No electronic devices unless explicitly called for by the instructor (look under “tablets/computers” below)

**Code of Conduct: aka our Contract**

The value of the course will depend on how much effort you are willing to put in, and on attendance and participation in the lectures and assignments.

You are expected to treat the class as you would your job, i.e., as a business professional, demonstrating mutual respect for each other, and performing as if it is an important
business assignment. This means you need to be prepared, be on time, and be attentive during the class.

*Tablets/Computers:* I am open to letting you use these for access to the class materials or to take notes. BUT if this is abused for personal activities and distracts other students I will change the policy.

*Cellphones:* All classes in this course have a ‘no cellphone’ policy. In respect to your fellow classmates and myself, please have your phone’s volume and vibration turned off during class and keep your phone in your bag/pocket. We will have one break (10 to 15 minutes) when you can catch up on calls, emails, etc.

If you need to be reachable immediately during class (e.g. your wife is going into labor any minute), please let me know ahead of time.

**My commitment to you:**
I will give you as much personal attention as feasible to maximize the benefit from your work. As people come in with different expertise, we can (partially) tailor the output to your strengths and expertise. I appreciate constructive feedback during the course to help optimize your learning, but I have to consider the class as a whole, so individual needs are best dealt with by me or Nan one-on-one.

<table>
<thead>
<tr>
<th>Type</th>
<th>Designation</th>
<th>Discussion of Concepts</th>
<th>Preparation of Submission</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>Group/Group</td>
<td>Permitted with designated group*</td>
<td>By the group</td>
<td>Same grade for each member of group</td>
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<tr>
<td>B</td>
<td>Group/Individual</td>
<td>Permitted with designated group*</td>
<td>Individually</td>
<td>Individual</td>
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<td>(No sharing of any portion of the submission.)</td>
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*The designated group is a self-selected study group to be used for the duration of the course.*
# B 7010: Preliminary Course Outline

<table>
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<tr>
<th>Class #</th>
<th>Subject matter</th>
<th>Specific Topics</th>
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| 1       | Overview - Approach to Fundamental Analysis of any Business | - A general framework for understanding and then forecasting a business and its potential value in an uncertain environment  
- The “Cycle of Life” of a business  
- Relating this to financial statements, other information and intrinsic value  
- A critical review of what we see in practice by companies (early stage and established) and analysts |
| 2 and 3 | Understanding Revenue                                | - Understanding the product or service  
- To whom, how and where is it being sold  
- Pricing  
- What are the market size and the competitive situation?  
- How is the revenue recognized?  
- How and when are customers paying? |
| 4 and 5 | Understanding Productive Capacity, R&D and Intangibles | - What property and equipment (including technology) do they need to sustain the revenue and/or grow (match to the revenue expectations)?  
- How much does this cost and how will it be financed?  
- Where and How are (should) the physical and financing needs (be) reflected in the financial statements?  
- Considering IP and patents, what R&D or other intangibles are needed, how are they “acquired” and paid for, and how are/should they be reported?  
- How do these all compare to competitors? |
| 6 and 7 | Understanding Human Resources and Labor Costs        | - What type of talent do you need to sustain and/or grow the business, how many and where are they located?  
- What are (should) they (be) paid?  
- How are (should) they (be) compensated Cash vs Benefits (pensions and health/opeb) vs share-based compensation (shares vs employee stock options)? |
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<tr>
<th>Page</th>
<th>Section Title</th>
<th>Key Questions</th>
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| 8    | Understanding Material and other costs | - Where and how is the cost reflected in financial statements?  
- What are primary materials/components needed?  
- How are they sourced (supply chain) and what do they cost?  
- What are key sales and marketing approaches and costs?  
- Where and how are these reflected in financial statements? |
| 8-9  | Funding, Capital Structure | - Funding choices (equity vs debt) for different types of entity (early stage, high growth and steady state; small vs large)  
- How much and when is funding needed?  
- How are these reflected in financial statements and performance measures? |
| 9    | Funding: Financial Investments, Strategic and M&A and Intangibles from Acquisition | - Considering liquidity and financial investments and how they are reflected in financial statements  
- Impacts of strategic investments, mergers and acquisitions, and minority stakes.  
- How do we interpret the related growth and acquisition related assets? |
| 10   | The Impact and Understanding of Taxation | - Tax considerations: what is taxed, where is it taxed, when is it taxed and at what rate?  
- How is tax reflected in the financial statements and what can we learn from this? |
| 11   | Understanding the Basics of Currency Impacts | - Transactions vs translation and impact on margins, cash flow, ratios and capital |
| 12   | Catch up, valuation and putting it all together | - Bringing all the pieces together and relating them to forecasts and valuation analysis  
- Considering the trade-offs of various valuation approaches for managers and different investors. |
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<thead>
<tr>
<th>Assignment #</th>
<th>Topic</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>1</td>
<td>Drawing-describing the “Operating and Funding Cycles of a Business” (small, but investing time in this step will pay off)</td>
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<td>2</td>
<td>Revenue analysis (large)</td>
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<td>3</td>
<td>Capacity analysis (large)</td>
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<tr>
<td>4</td>
<td>Labor analysis (large)</td>
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<tr>
<td>5</td>
<td>Materials and Other Costs (small)</td>
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<tr>
<td>6</td>
<td>Capital structure analysis (small)</td>
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<td>7</td>
<td>Taxation analysis (voluntary)</td>
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<tr>
<td>Final project</td>
<td>Additional Scenario of 2 Year Forecast, Write-up and Valuation (Individual)</td>
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**Note:** Assignment 1-7 for Chipotle, final project for a company you choose.