# **Chapter 1 Financial Modeling and Valuation**

**Goals of financial modeling and valuation**

1. Concepts
2. Historical analysis
3. Making projections
4. Model flow between financial statements
   1. Income statement
   2. Cash flow statement
   3. Balance sheet
   4. Depreciation schedule
   5. Working capital
   6. Debt schedule

**Nine major categories of the income statement**

1. Revenue (sales) – important to know when and how revenue is recongnized
2. Cost of goods sold – direct costs attributable to the production of goods sold by the company
3. Operating expenses – incurred as a result of performing normal business operations
   1. Selling, general, and administrative (SG&A)
   2. Advertising and marketing
   3. Research and development
4. Other income – generated from non-core parts of the business
   1. since this income is taxable it has to be recorded
   2. income from non-controlling interests (a.k.a. income from unconsolidated affiliates)
   3. whether to include in EBITDA depends on several things such as: is it core enough to the operations, is it consistent and reoccurring, the purpose of the analysis, how other companies treat it for purposes of comparison, is the treatment defensible
5. Depreciation and amortization – accounts for the aging and depletion of fixed assets over time; amortization accounts for the cost basis reduction of intangible assets such as intellectual property (patents, copyrights, trademarks, etc…)
6. Interest – net of interest received on cash and cash equivalents less interest paid of debt
7. Taxes – financial charges imposed by government on a company’s earnings before taxes
8. Non-recurring and extraordinary items (non-recurring items) – expenses or income that are either one-time or not pertaining to core operations. These items should be identified and moved below the EBITDA, EBIT, and NI line items in order to derive “clean” EBITDA, EBIT, and NI.
9. Distributions – broadly defined as payments to equity holders (usually in the form of dividends and / or non-controlling interest payments

These major categories are important to dissect because they are the drivers of profitability and also the basis for comparing profitability between different companies to derive relative valuation.

**Key Formulas**

Moving non-recurring items to a separate section results in an adjusted net income that does not equal to net income (as reported). Therefore, a second net income line that reconciles the adjusted net income with adjustments to arrive at net income (as reported) should also be included in the analysis. Additionally, when net income is being compared between different companies, it’s important to ensure that net income is consistently defined across all companies in the comparison.

Note: Hardcoded numbers in a model should be in blue font. All formulas should be in black font.