A Brief Review of Accounting

Four financial statements

- Income statement: in a given period, how much money a firm makes?
- Balance sheet: by the end of a given period, how much asset a firm owns and how are these assets financed?
- Cash flow statement: how much cash is generated in a certain period?
- Changes in shareholders' equity: how much do shareholders' of a firm own?

Accrual-based accounting

- Revenues or expenses are recorded when a transaction occurs rather than when payment is received or made.
- Revenue
  - product or service is delivered, and cash is received: cash revenue
  - product or service is delivered, and cash is not received: accounts receivable
  - product or service will be delivered in the future, but cash is received: deferred revenue
- Expenses:
  - product or service is received, and cash is paid: cash expenses
  - product or service is received, and cash is not paid : accounts payable
  - product or service will be received in the future, but cash is paid: prepaid expenses

Income Statement

- Basic equation: revenue-expenses=income
- Key concepts
  - Revenue
  - Cost of goods sold
  - Gross margin
  - Research and development expenses
  - Selling, general, and administrative expenses
  - Operating income (a.k.a. earnings before interest and taxes)
  - Taxes
  - Net income
  - Earnings per share

Depreciation

- Accrual-based accounting:
  - When a firm purchases an equipment that is expected to serve for 10 years, we do NOT record the total cost on the income statement in the period of the purchase.
  - Rather, the equipment will be recorded on the balance sheet and depreciate over the 10 years. That is, each year, we record a fraction of the total cost as the expense.
- Depreciation method:
  - Straight-line method
  - Double-declining method
  - …

Balance sheet

- Basic equation: Asset=Liabilities+Equity
- Key concepts
  - Current asset
  - Cash
  - Inventory
  - Non-current asset
  - PPE
  - Current liabilities
  - Non-current liabilities (a.k.a. long-term liabilities)
  - Tangible Asset
  - Intangible Asset
  - Book value

Cash flow statements

- Direct method
- Indirect method:
  - Cash flows from operating activities, financing activities, and investing activities
  - Start from net income and adjust for non-cash components.
    - Depreciation
    - Change in net working capital

Other other concepts

- Retained earnings
- Dividend payment
- Profitability ratio: net income margin; return on equity
- Leverage ratio: