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: