

## Shares Outstanding

Number of shares has been sold by a company. For instance Apple has 1 billion Shares which have been traded in the stock market. The value or price of each single share depends on the value of the whole business called “Market Price”.

## Market Price

It represents the monetary value of the company. Knowing the “Market price” of a company along with its “Shares Outstanding” enables us to calculate price of each single share.

## Income Statement

An income statement is a financial statement that reports a company's financial performance, including revenues and expenses, over a specific accounting period. It also shows the *net profit* or *net income* and loss over the time period.

The income statement is divided into two parts: operating and non-operating. They disclose information about revenues and expenses that are a direct and indirect result of regular business operations.

## Balance Sheet

The balance sheet provides information on what the company owns (its assets), what it owes (its liabilities) and the value of the business to its stockholders (the shareholders' equity) as of a specific date.

- **Liability:** A liability is a company's financial debt or obligations that arise during the course of its business operations.
- **Asset:** An asset is a resource with economic value that a corporation owns or controls with the expectation that it will provide future benefit.
- **Shareholders' equity:** is the value of a business to its owners after all of its obligations have been met. This net worth belongs to the owners.

The balance sheet must follow the following formula:

$$\text{Shareholders' Equity} = \text{Total Assets} - \text{Total Liabilities}$$

## Share Price

Knowing “Market Price” and “Shares outstanding” of a business helps to calculate its share price! The calculation is as simple as ABC:

$$\text{Share Price} = \text{Market Price} / \text{Shares outstanding}$$

## EPS (Earn Per Share)

An important number is shown in an Income Statement called net income. The pure/net income of the business considering all revenue and expenses over a period.

As a stakeholder, it is important for us to know how big our slice of the benefit cake is! It means how much do I earn having a share of the business?

Knowing “[Shares outstanding](#)” and “Net Income”, reported in the [Income Statement](#), of a business lets us to calculate the EPS value:

$$\text{EPS} = \text{Net Income} / \text{Shares Outstanding}$$

### **Book Value / Net Book Value (NBV) / Net Asset Value**

Book value is the net asset value of a company, calculated as total assets minus intangible assets (patents, goodwill) and liabilities. **Higher Better.**

It has two main uses:

1. The money the stakeholders will receive if a company were liquidated!
2. When compared to the company's market value, book value can indicate whether a stock is under- or overpriced.

Knowing “[Shares outstanding](#)” and “Equity”, reported in the [Balance Sheet](#), of a business lets us to calculate the Book value:

$$\text{Book value} = \text{Equity} / \text{Shares Outstanding}$$

### **P/E**

Price-to-earnings (P/E) ratio is a company's stock price divided by current earnings per share (EPS). On the other word it means how much you need to invest to earn 1\$ per year out of one single share. For example, if a stock price is 40\$ with an EPS of 2\$, then the P/E value will be 20\$.

It is better that P/E be a low value. It means that you invest less money to earn 1\$; however, it is not always the case. A company with a P/E of 40 can grow revenue and earnings faster than a company with a P/E of 20, thus commanding a higher price for higher future earnings.

P/E ratios vary among industries. Companies in stable, mature industries that have moderate growth potential usually have lower P/E ratios than companies in new, quick-growing industries with robust future potential. Investors should only compare the P/E ratios of companies from the same industry with similar characteristics.

That is why Google's PE ratio is about 35 or Apple 14

In general, a high P/E ratio suggests investors are expecting higher earnings growth in the future, compared to companies with a lower P/E.

If the company is growing quickly, you will be comfortable buying it even it had a high P/E ratio, knowing that growth in EPS will bring the P/E back down to a lower level. If it isn't growing quickly, you might shop around for a stock with a lower P/E ratio.

The P/E ratio does nothing to factor in the amount of debt that a company carries on its balance sheet. Debt levels have an impact on financial performance.

## PEG

The relationship between the price/earnings ratio and earnings growth tells a more complete story than the P/E on its own. This is called the PEG ratio. The lower the PEG ratio, the more the stock may be undervalued given its earnings performance. The rule of thumb is that a **PEG ratio below one is desirable**. Also, the accuracy of the PEG ratio depends on the inputs used.

To calculate the PEG ratio, an investor or analyst needs to first calculate the P/E ratio of the company in question. Once the P/E is calculated, the PEG ratio's formula is simply:

PEG ratio = PE ratio / earnings growth rate

For example:

Company A price per share = \$46, EPS this year = \$2.09, EPS last year = \$1.74

Company B price per share = \$80, EPS this year = \$2.67, EPS last year = \$1.78

Given this information, the following data can be calculated for each company:

Company A: P/E ratio =  $\$46 / \$2.09 = 22$

Earnings Growth Rate =  $(\$2.09 / \$1.74) - 1 = 20\%$

PEG ratio =  $22 / 20 = 1.1$

Company B: P/E ratio =  $\$80 / \$2.67 = 30$

Earnings Growth Rate =  $(\$2.67 / \$1.78) - 1 = 50\%$

PEG ratio =  $30 / 50 = 0.6$

Many investors may look at Company A and find it more attractive since it has the lower P/E. But compared to Company B, it doesn't have a high enough growth rate to justify its P/E. Company B is trading at a discount to its growth rate and investors purchasing it are paying less per unit of earnings growth.

## Earning Yield

### Current Ration

Current Ratio = Current Assets / Current Liabilities (**Higher Better > 1.5**)

The current ratio is a liquidity ratio that measures a company's ability to pay short-term and long-term obligations.

### Debt/Equity Ratio, Total Debt Ratio, Debt/Asset Ratio

D/E = Total Liabilities / (Total Assets - Total Liabilities)

$\leq 0$  means no risk

$> 0$  means if the company goes to bankruptcy, you have to pay D/E percentage of the real value of your share for it.

### **Warren buffet likes $D/E < 0.5$**

Given that the debt/equity ratio measures a company's debt relative to the total value of its stock. A high debt/equity ratio generally means that a company has been aggressive in financing its growth with debt. Aggressive leveraging practices are often associated with high levels of risk.

Like with most ratios, when using the debt/equity ratio it is very important to consider the industry in which the company operates. Because different industries rely on different amounts of capital to operate and use that capital in different ways, a relatively high D/E ratio may be common in one industry while a relatively low D/E may be common in another. For example, capital-intensive industries such as auto manufacturing tend to have a debt/equity ratio above 2, while companies like personal computer manufacturers usually are not particularly capital intensive and may often have a debt/equity ratio of under 0.5. As such, D/E ratios should only be used to compare companies when those companies operate within the same industry.

### **Comparing P/E, EPS and Earning Yield**

#### **S&P**