



# UTM CAPITAL

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## Management

Valuation Multiples & Comparable Company Analysis  
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## Introduction

Valuation multiples are types of financial measurement tools that evaluate on a particular financial metric as a ratio of another. Valuation multiples are a key component of gauging a company's relative value to competitors and is often used as a core component of financial analysis by equity research analysts and other investors.

There are two main types of valuation multiples that analysts investigate:

1. Equity Multiples
2. Enterprise Value Multiples

Equity Multiples involve examining ratios between the equity price of a company and an element of performance such as earnings, sales, growth, etc. Enterprise Value Multiples (as the name suggests) consider the Enterprise Value of the business relative to an element of performance. Equity multiples are more commonly used by investors given their ease of calculation and how readily they are available by external sources such as websites and apps. However, Enterprise Value multiples are just as important for any serious investor looking to assess the intrinsic value of a company. Both types of multiples are considered key in the comparable companies' analysis – a process whereby one evaluates the value of a company by using the metrics of other businesses of similar size in the same industry as a comparison.

This guide will go over 3 common multiples, how to calculate them, and how to use them in a comparable company analysis to help find the relative value of a stock.

### 1) P/E

P/E or Price / Earnings (Price to Earnings) is a type of Equity Multiple that relates a company's share price to its earnings per share or EPS. The calculation goes as follows:

- $\text{P/E Multiple} = \text{Equity Value per Share} / \text{EPS}$
- Or
- $\text{P/E Multiple} = \text{Equity Value} / \text{Net Income}$

EPS can be a tricky component to consider, as it comes in different forms and often needs to be calculated itself.

- $\text{EPS} = (\text{Net Income} - \text{Preferred Dividends}) / \text{Average Outstanding Common Shares}$ .

EPS often is calculated in two forms; Trailing Twelve Months (TTM), which signals company performance over the last 12 recorded months of data, or Next Twelve Months (NTM), the best educated guess of performance for the next 12 months.

Oftentimes EPS, and in-turn P/E, uses trailing statistics as these calculations involve using readily available data.

### Simple P/E Example:

Let's say XYZ Inc. has a share price of \$50 and 12-month trailing EPS of \$2.

XYZ Inc. therefore has a TTM P/E ratio of  $50/2 = 25x$ .

XYZ Inc. now trades at 25x (read as 25 times) its 12-month earnings.

If the share price of XYZ Inc. suddenly fell to \$30, the new TTM P/E Ratio would be 15x, which means the stock's price is now trading at only 15x its earnings. The earnings for XYZ Inc. have not changed, but its P/E ratio did given its stock's price dropped.

## 2) EV/EBIDTA

EV/EBIDTA or Enterprise Value / EBIDTA (Enterprise Value to Earnings before Interest, Tax, Depreciation and Amortization) is a type of Enterprise Value Multiple that related Enterprise Value of a business to its reported EBITDA, a component that can also be calculated as through TTM or NTM avenues. The calculation for the formula goes as follows:

- $EV = (\text{Market Capitalization} + \text{Value of Debt} + \text{Minority Interest} + \text{Preferred Shares}) - (\text{Cash and Cash Equivalents})$
- $EBITDA = \text{Earnings before Interest, Tax, Depreciation and Amortization.}$   
(Can be found through the income statement by taking net income or net earnings and adding back Interest, Tax, Depreciation and Amortization).

Similar to P/E, both EBITDA and EV/EBITDA is normally calculated using trailing statistics as these involve readily available data.

### Simple EV/EBIDTA Example:

ABC Inc. trades at a market cap of \$10B, has a cash balance of \$400M, and debt of \$2.4B. For the full preceding year, EBITDA was reported at \$2B.

$$\begin{aligned}\text{Enterprise value} &= \$10B + \$2.4B - \$0.4B = \$12B \\ \text{TTM EV/EBIDTA} &= 12/2 = 6x\end{aligned}$$

ABC Inc. then announces it has hired Elon Musk as its' new CEO. Both institutional and retail investors are excited at the prospect and begin buying more stock in equity markets, with the market cap rising to \$15B.

$$\begin{aligned}\text{New Enterprise Value} &= \$15B + 2.4B - 0.4B = 17B \\ \text{Adjusted TTM EV/EBIDTA} &= 17/2 = 8.5x\end{aligned}$$

## 3) EV/Revenue

The EV/Revenue or Enterprise Value / Revenue multiple is another common Enterprise Value multiple. It simply involves using the calculated Enterprise Value of the business and dividing by revenue. Like the other multiples in this guide, EV/Revenue can be calculated based on TTM or NTM estimates for Revenue.

## Simple Comparable Company Analysis

A Comparable Company Analysis (CCA) is used to evaluate the value of a company by comparing its valuation multiples to other businesses within the same industry. We will be using Costco (\$COST), a major big-box retailer, as our company of focus. All multiples will be calculated using TTM data.



*Note: All relevant market data and financials (excluding share price) are written in millions.  
Data as of market close - November 14, 2022*

| Market Data |               |                   |                    |              |          |                  | Financials |        |            | Valuation  |           |     |
|-------------|---------------|-------------------|--------------------|--------------|----------|------------------|------------|--------|------------|------------|-----------|-----|
| Company     | Ticker Symbol | Share Price (USD) | Shares Outstanding | Equity Value | Net Debt | Enterprise value | Revenue    | EBITDA | Net Income | EV/Revenue | EV/EBIDTA | P/E |
| Costco      | COST          | 515.47            | 442                |              | (143)    |                  | 226,954    | 9,693  | 5,844      |            |           |     |
| Walmart     | WMT           | 142.58            | 2,710              |              | 53,285   |                  | 572,754    | 36,600 | 13,673     |            |           |     |
| Kroger      | KR            | 47.10             | 715                |              | 19,280   |                  | 137,888    | 6,592  | 1,655      |            |           |     |
| Amazon      | AMZN          | 100.79            | 10,200             |              | 105,672  |                  | 469,822    | 59,175 | 33,364     |            |           |     |
| Sprouts     | SFM           | 33.10             | 106                |              | 1,197    |                  | 6,099      | 464    | 244        |            |           |     |

We need to start off by acquiring some information from Costco's financial statements. We need to have the following information:

- Share Price
- Shares Outstanding
- Net Debt
- Revenue
- EBITDA
- Net Income

For the analysis we also need to use financials from comparable companies. In this instance, we want companies that are also major retailers / supermarkets in North America as these are direct competitors within the same industries. We used Walmart, Kroger, Amazon and Sprouts as comparable examples.

We calculate our Equity Values by simply multiplying our Share Price by Shares Outstanding. We can then add Net Debt to get our Enterprise Value. We now have all the information to form our EV/Revenue, EV/EBITDA, and P/E multiples. Divide our Enterprise Values by Revenue and EBITDA respectively, and divide Equity Value / Net Income to get P/E.

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| Market Data |               |                   |                    |              |          |                  | Financials |        |            | Valuation  |           |       |
|-------------|---------------|-------------------|--------------------|--------------|----------|------------------|------------|--------|------------|------------|-----------|-------|
| Company     | Ticker Symbol | Share Price (USD) | Shares Outstanding | Equity Value | Net Debt | Enterprise value | Revenue    | EBITDA | Net Income | EV/Revenue | EV/EBIDTA | P/E   |
| Costco      | COST          | 515.47            | 442                | 227,838      | (143)    | 227,695          | 226,954    | 9,693  | 5,844      | 1.0x       | 23.5x     | 39.0x |
| Walmart     | WMT           | 142.58            | 2,710              | 386,392      | 53,285   | 439,677          | 572,754    | 36,600 | 13,673     | 0.8x       | 12.0x     | 28.3x |
| Kroger      | KR            | 47.10             | 715                | 33,677       | 19,280   | 52,957           | 137,888    | 6,592  | 1,655      | 0.4x       | 8.0x      | 20.3x |
| Amazon      | AMZN          | 100.79            | 10,200             | 1,028,058    | 105,672  | 1,133,730        | 469,822    | 59,175 | 33,364     | 2.4x       | 19.2x     | 30.8x |
| Sprouts     | SFM           | 33.10             | 106                | 3,504        | 1,197    | 4,701            | 6,099      | 464    | 244        | 0.8x       | 10.1x     | 14.4x |

*Excluding \$COST*

|         |  |  |  |  |  |  |  |  |  |      |       |       |
|---------|--|--|--|--|--|--|--|--|--|------|-------|-------|
| High    |  |  |  |  |  |  |  |  |  | 2.4x | 19.2x | 30.8x |
| Average |  |  |  |  |  |  |  |  |  | 1.1x | 12.3x | 23.4x |
| Median  |  |  |  |  |  |  |  |  |  | 0.8x | 11.1x | 24.3x |
| Low     |  |  |  |  |  |  |  |  |  | 0.4x | 8.0x  | 14.4x |

We now have some multiples that are representative of the industry, or at the very least, some of Costco's direct competitors. We can now use these multiples to recreate Costco's fair Enterprise Value and in-turn implied share price based off of how comparable companies are trading in the market. We will use the average multiples from Costco's competitors.

This includes EV/Revenue at 1.1x, EV/EBITDA at 12.3x and P/E at 23.4x.

We can multiply Costco's revenue by 1.1x, EBITDA by 12.3x for implied Enterprise Values and Net Income by 23.4x for implied Equity Value.

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| Market Data |               |                   |                    |              |          |                  | Financials |        |            | Valuation  |           |       |
|-------------|---------------|-------------------|--------------------|--------------|----------|------------------|------------|--------|------------|------------|-----------|-------|
| Company     | Ticker Symbol | Share Price (USD) | Shares Outstanding | Equity Value | Net Debt | Enterprise value | Revenue    | EBITDA | Net Income | EV/Revenue | EV/EBITDA | P/E   |
| Costco      | COST          | 515.47            | 442                | 227,838      | (143)    | 227,695          | 226,954    | 9,693  | 5,844      | 1.0x       | 23.5x     | 39.0x |
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| Kroger      | KR            | 47.10             | 715                | 33,677       | 19,280   | 52,957           | 137,888    | 6,592  | 1,655      | 0.4x       | 8.0x      | 20.3x |
| Amazon      | AMZN          | 100.79            | 10,200             | 1,028,058    | 105,672  | 1,133,730        | 469,822    | 59,175 | 33,364     | 2.4x       | 19.2x     | 30.8x |
| Sprouts     | SFM           | 33.10             | 106                | 3,504        | 1,197    | 4,701            | 6,099      | 464    | 244        | 0.8x       | 10.1x     | 14.4x |

*Excluding \$COST*

|         |  |  |  |  |  |  |  |  |  |      |       |       |
|---------|--|--|--|--|--|--|--|--|--|------|-------|-------|
| High    |  |  |  |  |  |  |  |  |  | 2.4x | 19.2x | 30.8x |
| Average |  |  |  |  |  |  |  |  |  | 1.1x | 12.3x | 23.4x |
| Median  |  |  |  |  |  |  |  |  |  | 0.8x | 11.1x | 24.3x |
| Low     |  |  |  |  |  |  |  |  |  | 0.4x | 8.0x  | 14.4x |

| Costco Average Comparables Valuation |  |  |  | EV/Revenue | EV/EBITDA  | P/E        |
|--------------------------------------|--|--|--|------------|------------|------------|
| Implied Enterprise Value             |  |  |  | 245,991.80 | 119,553.68 | 137,156.11 |
| Less: Net Debt                       |  |  |  | (143)      | (143)      | (143)      |
| Implied Equity Value                 |  |  |  | 246,134.80 | 119,696.68 | 137,013.11 |
| Shares Outstanding                   |  |  |  | 442        | 442        | 442        |
| Implied Share Prices                 |  |  |  | 556.87     | 270.81     | 309.98     |
| Share Price Today                    |  |  |  | 515.47     | 515.47     | 515.47     |
| Implied Upside or Downside           |  |  |  | 8.03%      | -47.46%    | -39.86%    |

We have what is now a simply Comparable Company Analysis where we can gauge where Costco's share price trades today relative to its competitors and whether it is worth investing. By comparing Costco to its peers on an EV/Revenue basis, it trades at a slight discount with an implied upside of 8%. However, on the basis of EV/EBITDA and P/E, it actually trades at a hefty premium with an implied downside of -47.46% and -39.86% respectively.