# How to Calculate the Enterprise Value of a Private Company

## The Basics of Enterprise Value

Enterprise value is perhaps the most common metric used to describe the value of a company. Simply put Enterprise Value is what it would cost to acquire a company. The formula for enterprise value is pretty straight forward:

Enterprise value =

common equity at market value (this line item is also known as "market cap")
+ debt at market value (here debt refers to interest-bearing liabilities, both long-term and short-term)
+ minority interest at market value, if any
+ preferred equity at market value (preferred shares/liquidation preferences)
+ unfunded pension liabilities and other debt-deemed provisions
– value of associate companies
– cash and cash equivalents.

Most major stock reporting services will calculate enterprise value automatically. For example here is Google (Alphabet)'s that lists all of the things needed to calculate Google's Enterprise Va;ue:

| | | |
|---|---|---|
| **Enterprise Value** | **$ 765.91** | billion |
| Trailing P/E | $ 51.87 | billion |
| Forward P/E | 25.02x | billion |
| PEG Ratio (5 yr expected) | 1.69x | billion |
| Price/Sales (ttm) | 6.78x | billion |
| Price/Book (mrq) | 5.16x | billion |
| Enterprise Value/Revenue | 6.18x | billion |
| Enterprise Value/EBITDA | 20.05x | billion |

**Income Statement**

| | | |
|---|---|---|
| Revenue (ttm) | 123.9 | billion |
| Revenue Per Share (ttm) | 178.41 | billion |
| Quarterly Revenue Growth (yoy) | 25.60% | |
| Gross Profit (ttm) | 65.27 | billion |
| EBITDA | 38.21 | billion |
| Net Income Avi to Common (ttm) | 16.31 | billion |
| Diluted EPS (ttm) | 23.16 | |
| Quarterly Earnings Growth (yoy) | -9.30% | |

**Balance Sheet**

| | | |
|---|---|---|
| Total Cash (mrq) | $ 102.25 | billion |
| Total Cash Per Share (mrq) | $ 146.99 | billion |
| Total Debt (mrq) | $ 3.98 | billion |
| Total Debt/Equity (mrq) | 2.46x | |
| Current Ratio (mrq) | 4.15x | |
| Book Value Per Share (mrq) | 232.78 | |

I typically use Yahoo Finance's key statistic feature to find the enterprise value of public companies.

Enterprise Value is different than a stock's market capitalization. Market cap is the value of a company's equity or stock. Market cap only addresses a portion of the value of a company. It is equal to the number of outstanding shares multiplied by the current share price. While Google's market cap is $839.8 billion, its' enterprise value is $765.91 billion since they carry $3.9 billion in debt and they have $102.25 billion in cash.

**<u>Enterprise Value of Private Companies</u>**

Calculating the enterprise value of private companies is a lot harder. There is no reliable public source of private company’s market cap, debt, or cash. Instead you will need to examine the values of comparable companies and develop an estimate of what a private company's enterprise value to be. There are three ways to accomplish this:

- Public Company Comps. Use the valuation of similar public companies to value your company
- Fairness Opinions. Research how investment banks justify the acquisition price in proxy statements
- Industry Reports. Review 3rd party research reports on company valuations.

**Public Company Comps**

If there are public companies in your industry you can use them to determine a range of values to estimate the enterprise value of your private company. Consider the following table:

| $M | Enterprise Value | TTM Revenue | TTM EBITDA | EV/Revenue | EV/EBITDA |
|---|---|---|---|---|---|
| Descartes | 2,570 | 249 | 80 | 10.28x | 31.97x |
| Manhattan Associates | 3,250 | 569 | 166 | 5.71x | 19.47x |
| American Software | 406 | 406 | 16 | 3.6x | 25.4x |
| SAP | 1,419 | 27,300 | 7,350 | 5.2x | 19.31x |
| | | | | | |
| Median | 1,995 | 488 | 123 | 5.46x | 22.44x |

These are some metrics from public companies in the supply chain management space. When referencing public companies, your private company will usually be valued at a discount. Public companies have annual audits by independent accountants, have to comply with Sarbanes Oxley, and other regulations like the Foreign Corrupt Practices Act. Also, public company's equity is liquid -- you can buy and sell it on stock exchanges. Private companies can't do that. The size and revenues are also typically different. If your firm is $35 million in size you cannot expect to command the same valuation as a Google or SAP. Typically the enterprise private firms are typically discounted by 30% to 40% in comparison to public companies. Subscale revenue, for example less than $50 million/year results in a further discount of 15% to 25%.

**Fairness Opinions**

When a public company is purchased their board of directors are typically required to obtain a fairness opinion. A **fairness opinion** is a professional evaluation by an investment bank or other third party as to whether the terms of a merger, acquisition, buyback, spin-off, or privatization are fair. If the private company you are interested has had competitors that are public companies involved in a merger/acquisition, you can often find fairness opinions in the definitive proxy statements associated with the merger.

For example, here are some excerpts from a fairness opinion associated with the acquisition of Cayenne Software that I played a major role in 1999.

> Precedent Transactions Analysis. AH&H analyzed publicly available information for selected, completed transactions (i.e., mergers and acquisitions) involving financially distressed target companies from a variety of industry segments (i.e., Precedent Transactions). The Precedent Transactions reviewed were, in order of date announced: (i) Visigenic Software, Inc. / Borland International, Inc. (Inprise); (ii) Individual, Inc. / Desktop Data, Inc. (NewsEDGE); (iii) CompuRAD, Inc. / Lumisys, Inc.; (iv) NetFrame Systems, Inc. / Micron Electronics, Inc.; (v) Imex Medical Systems, Inc. / Nicolet Biomedical, Inc.; (vi) Somatix Therapy Corporation / Cell Genesys, Inc.; (vii) Compression Labs, Inc. / VTEL Corporation; and (viii) Altai, Inc. / PLATINUM technology, inc. In examining the Precedent Transactions, AH&H assessed certain financial characteristics of the acquired company relative to the consideration offered. AH&H reviewed the value of the consideration paid (the "Transaction Value") in the Precedent Transactions as a multiple of LTM revenues, LTM operating income and LTM net income, and as a multiple of the book value of common stockholder's equity. In addition, AH&H reviewed the premiums/discounts of the offer prices to the closing stock prices one day, one week and four weeks prior to the announcement date of the Precedent Transactions.
>
> Such analyses of the Precedent Transactions indicated that: (i) Transaction Values as a multiple of LTM revenues ranged from 0.3x to 5.4x, and the median value was 1.3x; and (ii) Transaction Values as a multiple of the book value of common stockholders' equity ranged from 1.7x to 43.5x, and the median value was 5.5x. As a result of losses incurred by Cayenne and the target companies in the Precedent Transactions analysis, the corresponding multiples of LTM operating income and LTM net income implied by the acquirors' offers were not meaningful. The corresponding multiples of LTM revenues and book value of common stockholders' equity implied by Sterling Software's offer price is 0.3x and 2.8x. The premiums/discounts of the offer prices to the closing stock prices

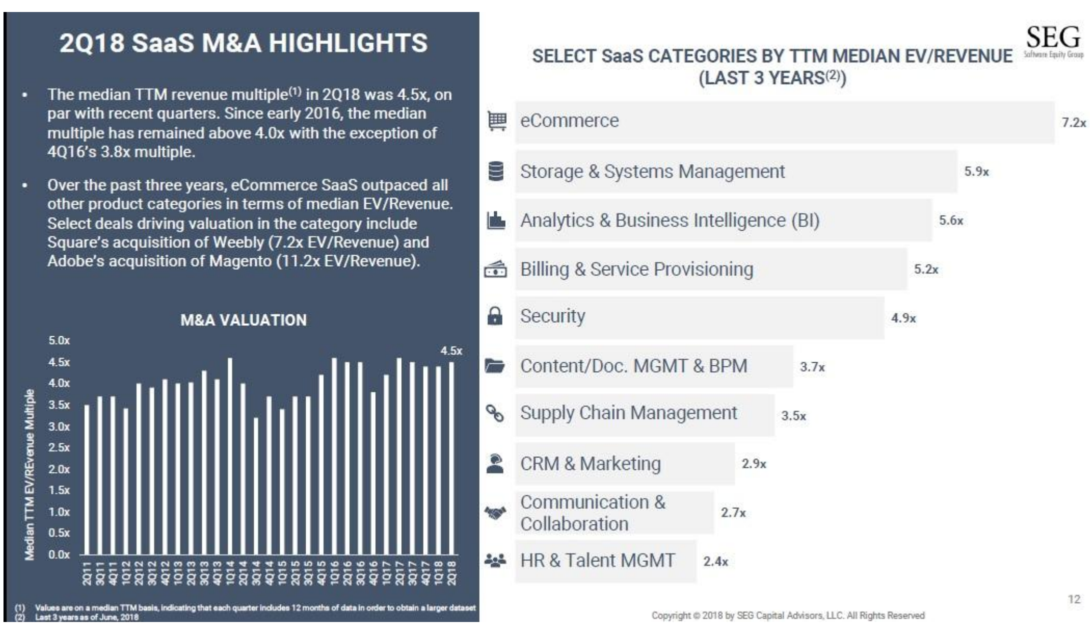
> one trading day, one week and four weeks prior to the announcement date of the Precedent Transactions ranged from -26.2% to 51.2%, -18.4% to 29.2% and -22.5% to 51.2%, and the median values were 2.8%, 3.1% and 2.6%, respectively. Sterling Software's offer price represented a discount of 50% from the closing price of Cayenne's Common Stock one month prior to August 26, 1998.
>
> Based on the multiples of market capitalization to LTM revenues and market capitalization to book value of common stockholders' equity for the Peer Group and Cayenne, AH&H estimated the following ranges of Cayenne's implied common equity value: (i) based on market capitalization as a multiple of LTM revenues, Cayenne's implied common equity value ranged from $13.2 million, or $0.62 per share, to $238.1 million, or $11.16 per share; and (ii) based on market capitalization as a multiple of book value of common stockholders' equity, Cayenne's implied common equity value ranged from $6.8 million, or $0.32 per share, to $174.9 million, or $8.20 per share."

Unfortunately, you may not be able to find some fairness opinions that are relevant to your specific situation. Fairness opinions are paid for by the acquired company to justify the actions of the board of directors to the shareholders. It is extremely rare for a firm to determine that an acquisition price was unfair.

**Industry Reports**

A third source of valuation information can come from various industry analysts. One of my favorite sources for technology companies is the Software Equity Group (SEG). Allen Cinzori and his team publish quarterly and annual reports on the state of M&A and valuations in the technology space. They also are pretty good investment bankers as well. Here is a link to their research reports.

Below is a snippet from their most recent report:



You can use the relative EV/TTM revenue multiples as a rough guide to estimate the value of a private company. Simply use your knowledge or estimate of the company's revenues, apply the industry median multiple, then discount the result like you would for a public company.

**Summary**

Enterprise Value is a useful metric in assessing the value of a company. At the end of the day, however, company value is determined by what a willing buyer is willing to pay in the current market. External factors such as where public markets are at a point in time, and the availability of debt to finance transactions can have a significant influence on the value of a company aside from revenues and profitability.

If you have questions feel free to drop me an email at john.mecke@developmentcorporate.com