



WHAT DRIVES SAAS VALUATIONS

This publication intends to provide owners, executives and early-stage investors some insight as to how venture capital, private equity and strategic acquirers typically arrive at valuations of SaaS companies. While every company and transaction have unique attributes that impact pricing and marketability, this paper outlines the recurring themes that drive valuation across verticals. With this knowledge, management teams can better track their progress towards a sale or capital raise.

I am often asked the question, “what are SaaS multiples ‘going for’ these days?” The answer is always, “it depends” and that’s especially true of software companies in the lower middle market. These companies are typically in the earlier stages of their growth and are grappling with a myriad of issues that affect their ability to efficiently scale their businesses, which ultimately has a significant impact on valuation.

The chart below displays revenue, growth, gross margin and multiples (LTM = Last Twelve Months / NTM = Next Twelve Months Estimate) of 50 public software companies who are below \$8 billion in market capitalization (“Public SaaS Index”).

	LTM Revenue	NTM Revenue	3-yr CAGR	Gross Margin	EV / LTM Gross Profit	EV / LTM Revenue	EV / NTM Revenue
Mean	\$334	\$391	32%	70%	12.0x	8.3x	7.0x
Median	\$261	\$285	31%	71%	11.0x	8.1x	6.5x
Low	\$66	\$70	7%	49%	2.1x	1.7x	1.7x
High	\$1,264	\$1,404	81%	90%	25.3x	17.4x	16.9x

Source: Capital IQ

Without even reading the rest of this article, you should be able to recognize the dramatic impact growth rates and gross margin have on valuation, especially when focusing on the “Low” and “High” cases. These are a couple of the most impactful valuation drivers, but there are several others that need to be tracked as well. In addition, there are numerous metrics that can help management analyze the health of their business. In the following pages, we’ll discuss the factors that drive these valuations and the metrics which can help keep your business on track.



The Basics

There are many factors that drive corporate valuations, and each industry niche and business model differ in how these metrics impact enterprise value. We'll focus specifically on software in this article, so let's begin with the basics. Different than most other business models, it may take months or years for a software company to realize the full revenue potential of a client; since a significant portion of the expenses are recognized up-front, each new client is initially unprofitable. Further, as the company matures, there will be old clients who are highly profitable and new unprofitable clients, providing a skewed margin profile. Due to this dynamic, revenue (rather than EBITDA) is the better indicator of value and is typically the benchmark by which valuation multiples are based. Specifically, private software companies are typically valued as a multiple of annual recurring revenue (ARR).

Public vs. Private Company Multiples – Liquidity Discount

To create a baseline for valuation, public market data is a great place to start. However, it is not an apples-to-apples comparison because of the liquidity risk (shares can't be actively traded) associated with owning equity of a private company. Analysis suggests private companies with the same profile (growth, margin, retention, etc.) should receive a 25% discount to the forward looking public revenue multiple to compensate for the lack of liquidity and the fact that the public multiple is based on expected future revenue and the private multiple is based on actual current run-rate revenue.

This is certainly an estimate and is constantly changing as the public markets adjust in real time, private market data is hard to capture and is at a considerable time lag, and companies are staying private for longer periods than in the past. However, the 25% liquidity discount is a good rule-of-thumb for most private companies

with sub-\$50M in revenue. Applying this discount to the median 6.5x NTM Revenue Multiple above gives us a 4.9x starting multiple for most private software companies.

“...the 25% liquidity discount is a good rule-of-thumb for most private companies

To be clear, this discount is for liquidity and is unrelated to company size. Revenue size itself shouldn't drive discounts or premiums, rather they should be applied on a relative basis. For example, small companies are expected to grow at a significantly higher rate than large companies (much easier to double the size of a company with revenue of \$3M vs. \$20M). Therefore, 30% growth on a small company will be viewed differently than 30% growth of a larger company. We'll dive into this further later in this article.



Revenue Model

Software companies have product and services components of their revenue. Service revenue (i.e., configuration, implementation and training) typically has a lower gross margin and lacks the scale, and recurring nature, of the software revenue. Depending on the ratio of product to services, investors may evaluate these components separately by applying a lower multiple to the services. A good rule of thumb is that a 4:1 ratio of recurring software revenue to services needs no multiple adjustment, however a discount (or premium) may be applied as the ratio deviates significantly.

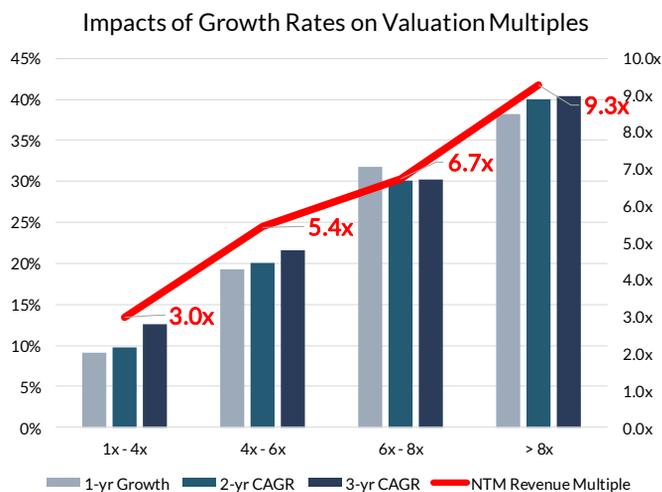
“...SaaS platforms will transact at premium valuations to perpetual license models

Now that we've delineated between services and software, let's be clear that all software revenue is not created equal. SaaS platforms typically transact at premium valuations to perpetual license models. This is because of the greater long-term revenue opportunity delivered by SaaS companies. While the license model has greater cash up front, it has lower recurring revenues. The multi-tenant nature of the SaaS model also lends itself to higher gross margins as the company only needs to support a single version of the product. Further, the SaaS model provides greater flexibility to purchasers as they can match the costs with the benefits derived from the product, thus driving

a greater willingness to make an initial commitment. Assuming a strong product, these factors lead to significant additional lifetime value capture and a broader addressable market. While some industries and end users have proven stubborn to transition from the perpetual license model, and the SaaS model is more difficult to fund in its early stages, there are long-term benefits of deploying a SaaS model as it tends to transact at a 20% (or greater) premium to the perpetual model.

Growth Rates

Historical growth rate is the biggest valuation driver of SaaS businesses. A company with high growth and strong retention can quickly overcome its initial capital constraints and be cash flow positive sooner. This relationship between growth and valuation is clearly displayed using data from the public markets. We charted 1, 2 and 3-year median growth rates of the Public SaaS Index and bucketed the companies based on multiples.



Source: Capital IQ



The relationship so clearly seen on the previous page is due in large part to the cumulative impacts of high growth and high retention – these companies will dig out of their negative cash flow position quicker than their peers, leading to earlier profitability (at greater scale) and/or greater financial flexibility down the line. Further driving the higher multiples is the fact that strong historical growth tends to be a good indicator of future growth.

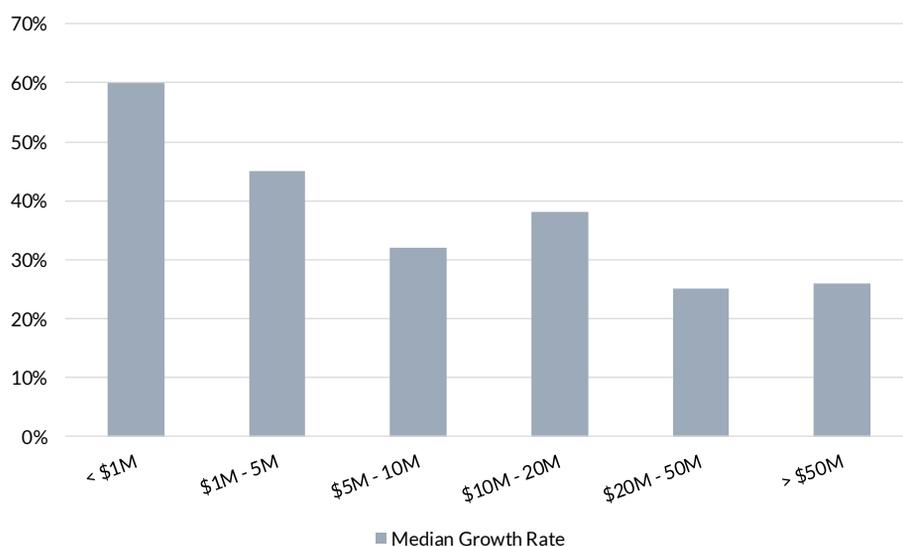
The basis for being able to support a valuation “growth premium” is whether your company is growing faster than its similarly-sized peers. The chart below is based on a survey of over 950 private SaaS companies, displaying the median growth rates for SaaS business of different sizes.

As previously mentioned, a company’s growth rate should be compared to its peers. The chart below displays that

small companies are expected to grow at a significantly higher rate than large companies – this makes intuitive sense as it’s much easier to double the size of a company with revenue of \$3M vs. \$20M.

If your business is growing faster than its peers, it’s reasonable to expect a growth premium. However, if it’s growing slower than its peers a discount will be appropriate. An exact premium or discount is hard to pinpoint, but smaller SaaS companies (\$1M – 5M) could expect a ~1x multiple increase (decrease) for every 15% deviation from 50%. For larger companies (>\$10M), the expectation could be ~1x multiple increase (decrease) for every 10% deviation from the 25%. Clearly, these are just estimates and will vary based on multiple factors including addressable market, retention, industry, etc.

SaaS Company Growth Rates by Size of Business

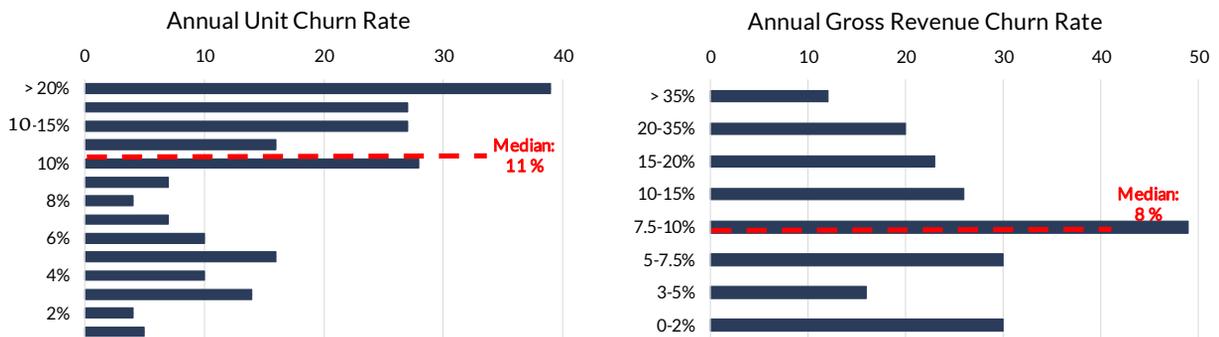


Source: SaaS Capital



Revenue Retention / Churn

One of the best ways to grow your customer base is to ensure you don't lose those you already have. Too often, companies are so focused on chasing new revenue that they neglect their current customer base. In addition to supporting growth, strong customer retention stats indicate that your product can fight off the advances of your competitors and that your customers view your software as mission critical. In a 2017 survey of about 200 private SaaS companies with revenue greater than \$5M, the median annual unit churn rate was 11% and the annual gross dollar churn was 8%.



Source: forentrepreneurs.com/2017-saas-survey-part-2

Retention is cumulative, so small increases can have a significant impact over time especially when you take upselling into account, possibly leading to negative net churn. The recurrence of revenue also makes future performance more predictable, thus reducing investment risk.

Investors typically want to see retention around 90% or greater. If they don't, chances are they'll discount your multiple and probably lose interest if retention falls much below 65 - 70%.

Gross Margins

It's important that growth is not achieved to the detriment of gross margins. The theory of acquiring customers at all costs is flawed and investors will discount multiples to account for the deviation from "market" margins.

Software company gross margins vary based on their ratio of professional services to subscription, as well as their target customers. For example, enterprise software companies tend to have a greater professional services component as there is greater implementation, configuration, customer supports, etc., which lends to lower gross margins. While the public company sample displays a median of 70%, my experience is that investors are using 80% as a baseline for smaller, private SaaS companies.



The discount that gets applied for lower gross margin can be displayed using some simple arithmetic. In the example below, we'll consider four companies: Premium SaaS Co. with margins of 90%, Baseline SaaS Co. with margins of 80%, Discount SaaS Co. with margins of 70%, and Super Discount SaaS Co. with margins of 60%. Further, we'll assume a 4.9x private company multiple (6.5x public multiple less the 25% private company discount) and a baseline gross margin of 80%:

Assumptions					
(a)	Public Company Multiple		6.5x		
(b)	Private Company Discount		25%		
(c)	Private Company Multiple	a - b	4.9x		
(d)	Baseline Gross Margin %		80%		
(e)	Implied Baseline GM Multiple	c ÷ d	6.1x		
			Premium SaaS	Baseline SaaS	Discount SaaS
					Super Discount
(f)	Revenue (000,000s)		\$10.0	\$10.0	\$10.0
(g)	Gross Margin %		90%	80%	70%
(h)	Gross Profit	f * g	\$9.0	\$8.0	\$7.0
	Implied Baseline GM Multiple	e	6.1x	6.1x	6.1x
(i)	Company Valuation (000,000s)	e * h	\$54.8	\$48.8	\$42.7
	Implied Revenue Multiple	i ÷ f	5.5x	4.9x	4.3x
					3.7x

Utilizing a baseline gross margin multiple (6.1x by our calculations) will remove the effects of varying gross margins. Similarly, investors will sometimes value each revenue stream separately utilizing different market multiples to account for each service.

“Rule of 40”

Previously discussed in the article was the importance of growth rate to determine the value of a SaaS company. We've also touched on the importance of gross margins, which highlight the scalability of the business model. EBITDA margins, however, have not been discussed. One reason for this is the fact that most early-stage SaaS companies are not yet profitable, so it's impossible to take a multiple of EBITDA. Another reason is that profitability expectations differ depending on growth. For instance, slower-growing, more mature SaaS companies are expected to be more profitable than fast-growing, earlier-stage companies. In recent years, the “rule of 40” has gained significant

attention in its simplistic approach to determining whether a company's growth / profitability profile is in line. Essentially, the calculation is:

annual revenue growth rate + operating margin should equal 40%

- If you are growing 40% YoY, you should be breaking even
- If you are growing 20% YoY, you should have 20% operating margins
- If you are not growing, you should have 40% operating margins

This metric is important and should be taken into account as discounts / premiums are applied for growth and profitability.



Unit Economics

At this point you might be thinking to yourself, “how can I identify the areas within my business that are driving value vs. those that are dragging it down?” The answer is unit economics. While the above analysis drives the “back-of-the-envelope” valuation, investors will dig into the unit economics to understand the overall health of the business, identifying the gaps, opportunities and trends that make the basis for their enterprise value (as well as the basis for their growth / investment thesis). In a future publication, we’ll dive deeper into unit economics, however we’d be remiss not to provide a high-level overview here.

Some of the most important metrics used by investors to analyze the health of SaaS (or any other recurring revenue) businesses include Monthly Recurring Revenue, Customer Acquisition Cost, Monthly Recurring Gross Profit, Gross Margin Payback

“investors want to see positive momentum in the business, where unit margins are expanding, sales efficiency is increasing, and customers aren’t churning

Period, Customer Lifetime and Lifetime Value of a Customer. It’s important that these are analyzed on a segment and channel basis, and returns are calculated from a gross margin perspective. Further, these

should be analyzed over time to highlight trends. In general, investors want to see positive momentum in the business, where unit margins are expanding, sales efficiency is increasing, and customers aren’t churning.

Gross Margin Payback Period is one metric that touches on each of these. Companies that have a payback period under 18 months are viewed favorably, while a 12-month period would be viewed as exceptional. Further, by taking the ratio of Lifetime Value to Customer Acquisition Cost, investors can determine the ROI on the investment made to acquire a customer. SaaS business with an LTV : CAC ratio greater than 3 are viewed favorably and can drive valuation enhancement.

What else drives valuation?

Valuing a company is both qualitative and quantitative. This article discusses much of the quantitative analysis that goes into valuing SaaS businesses. Some of the more qualitative analysis includes:

1. Size of the addressable market (high retention helps with this)
2. The level of corporate maturity within the company (i.e., systems, processes, management)
3. Do their clients view the software as “mission critical”?
4. What value can the acquirer provide (i.e., synergies)
5. Barriers to entry
6. Reputation

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