



 theTradeDesk

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# THE TRADE DESK EQUITY REPORT

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JANUARY 10TH, 2020

# THE TRADE DESK SUMMARY

BY THE NUMBERS

TICKER: TTD

PRICE: \$277.76



The Trade Desk is a technology company that provides a self-service omnichannel software platform that enables clients to purchase and manage data-driven digital advertising campaigns in the United States and internationally.

The company's platform allows clients to manage integrated advertising campaigns in various advertising channels and formats, including display, video, audio, native and social, and on a multitude of devices, such as computers, mobile devices, and connected TV (CTV). It serves advertising agencies and other service providers for advertisers.

The Trade Desk, Inc. was founded in 2009 and is headquartered in Ventura, California.

**N/A**

DIVIDEND YIELD

**+115%**

Y/Y RETURN

**\$12.5B**

MARKET CAP

# ANALYSIS

The Trade Desk (TTD) is a very unique company that is helping brands capitalize and get the most out of their advertising budgets on multiple platforms.

Let's break down a simple example that clearly explains the value of what the Trade Desk provides.

Let's take one of TTD's clients like that of Procter & Gamble. P&G has a big advertisement budget already and, like every company, is trying to maximize the return on every dollar spent. This is where TTD comes in. They use their platform and huge data library to place the most efficiently priced bids and locations for P&G. TTD is an enabler in the sense that everyone wins. TTD can realize that placing the ads on Hulu to the right person allows for Hulu to get paid, which they need to operate their business, the Hulu subscriber is happy because the ads are actually relevant, and P&G is happy because they are increasing their ROI which in turn also leads to more money for Hulu and the cycle continues.



In fact, P&G's Chief Brand Officer was asked in an AdExchanger article about the power of data-driven advertising. He said, "Moving from mass blasting to mass reach, one-to-one precision has helped us get substantial efficiencies in media, which then allows us to grow. That's helped us in the cycle: You raise the bar on superiority, you find ways to get more productive, then you reinvest back in superiority, reach more people, and the cycle continues."

Companies all over the globe are looking for ways they can not only better target their current customers but also ways in which they can target new customers and that is exactly the solution TTD is providing.

Here are some additional benefits and offerings:

- **Auto-Optimization** - allows buyers to automate their campaigns and support them with computer generated modeling and decision making. In addition, by giving clients full reporting, budgeting, and bidding transparency, clients can take control of targeting variables when desired, and apply algorithmic automation when appropriate.
- **Advanced Reporting and Analytics Tools**
- **Data Management** - enables clients to license a broad selection of data from third-party vendors in a seamless and easy manner, allowing them to further optimize their campaigns with the most relevant data.
- **Koa Artificial Intelligence** - predictive engine that helps platform users make data-driven decisions without sacrificing control or transparency. Koa makes recommendations for campaign optimizations based on its sophisticated analysis of rich data sets. Advertisers can then choose which optimizations make the most sense for their campaigns.
- **Private Marketplace Support** - for clients who wish to transact directly with individual publishers, they offer a comprehensive user interface for discovering and transacting via a wide variety of private contracts.

With great value to clients comes even greater revenues and stock gains. If we view the chart below, we'll see that TTD has significantly outperformed the broader market since its IPO in September of 2016 and also Y/Y.



TTD has gained over 850% since going public a little over 3 years ago while the S&P500 has gained roughly 51% - an outperformance of nearly 17x.



# CUBE'S TOP PROS FOR TTD



REVENUE  
GROWTH



LITTLE  
COMPETITION



PROFITABLE +  
POSITIVE CASH  
FLOW

# CUBE'S TOP CONS FOR TTD



RICH  
VALUATION



REGULATIONS  
ON DATA



GREATER  
SENSITIVITY TO  
HEALTH OF  
GLOBAL ECONOMY

# FINANCIAL STATEMENTS

## BALANCE SHEET

	As of September 30, 2019	As of December 31, 2018
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 173,446	\$ 207,232
Short-term investments	123,082	—
Accounts receivable, net	835,958	834,764
Prepaid expenses and other current assets	26,641	14,527
<b>TOTAL CURRENT ASSETS</b>	<b>1,159,127</b>	<b>1,056,523</b>
Property and equipment, net	47,734	33,046
Operating lease assets	177,276	—
Deferred income taxes	8,460	8,460
Other assets, non-current	22,442	19,843
<b>TOTAL ASSETS</b>	<b>\$ 1,415,039</b>	<b>\$ 1,117,872</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
<b>LIABILITIES</b>		
Current liabilities:		
Accounts payable	\$ 647,547	\$ 669,147
Accrued expenses and other current liabilities	40,553	44,844
Operating lease liabilities	15,938	—
<b>TOTAL CURRENT LIABILITIES</b>	<b>704,038</b>	<b>713,991</b>
Operating lease liabilities, non-current	167,668	—
Other liabilities, non-current	7,941	9,314
<b>TOTAL LIABILITIES</b>	<b>879,647</b>	<b>723,305</b>
Commitments and contingencies (Note 9)		
<b>STOCKHOLDERS' EQUITY</b>		
Preferred stock, par value \$0.000001; 100,000 shares authorized, zero shares issued and outstanding as of September 30, 2019 and December 31, 2018	—	—
Common stock, par value \$0.000001		
Class A, 1,000,000 shares authorized; 39,810 and 36,822 shares issued and outstanding as of September 30, 2019 and December 31, 2018, respectively		
Class B, 95,000 shares authorized; 5,311 and 7,042 shares issued and outstanding as of September 30, 2019 and December 31, 2018, respectively	—	—
Additional paid-in capital	353,899	270,447
Retained earnings	181,493	124,120
<b>TOTAL STOCKHOLDERS' EQUITY</b>	<b>535,392</b>	<b>394,567</b>
<b>TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY</b>	<b>\$ 1,415,039</b>	<b>\$ 1,117,872</b>



Analyzing TTD's balance sheet, one of the first things that stood out to CUBE was the \$836M in accounts receivables making up approximately 73% of all current assets. After checking TTD's history, this is pretty inline and is actually better than the roughly 78% they had in 2017. We can also see on a Y/Y basis that the number hasn't moved much even after the large increase in revenues experienced. In other words, this appears to be a non-issue especially when considering the top firms that TTD has as clients.

Moving along, TTD is sitting on a healthy amount of cash of around \$173M and while this is lower than last year's \$207M, the company has another \$123M in short-term investments they decided to put their cash in that they didn't have last year (view breakdown in image below).

Similar to accounts receivables, accounts payables are also stable and in order. As for debt, TTD doesn't really have much of any which is a big bright side and makes sense given their ability to generate positive cash flow and net income - unique for a company at this stage.

	As of September 30, 2019		
	Cash and Cash Equivalents	Short-Term Investments	Total
Cash	\$ 39,704	—	\$ 39,704
Level 1:			
Money market funds	118,510	—	118,510
Level 2:			
Commercial paper	14,232	25,844	40,076
Corporate debt securities	1,000	69,152	70,152
U.S. government and agency securities	—	28,086	28,086
Total	<u>\$ 173,446</u>	<u>\$ 123,082</u>	<u>\$ 296,528</u>

# FINANCIAL STATEMENTS

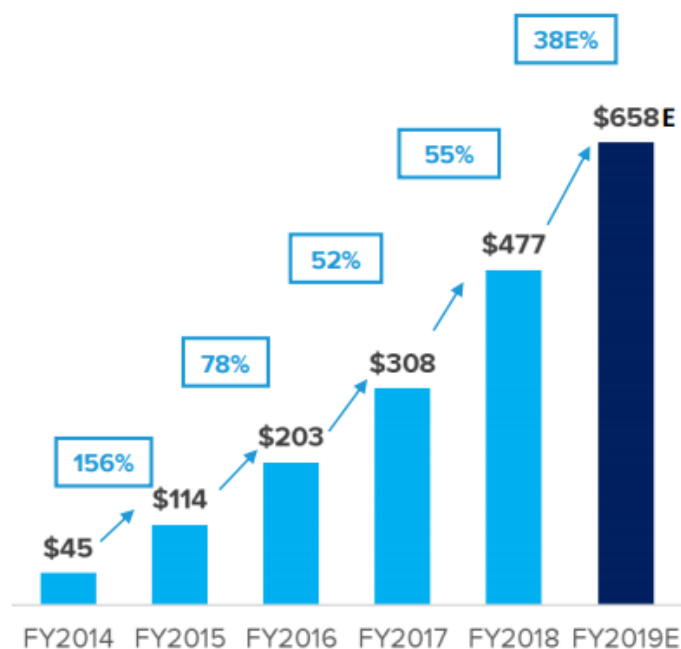
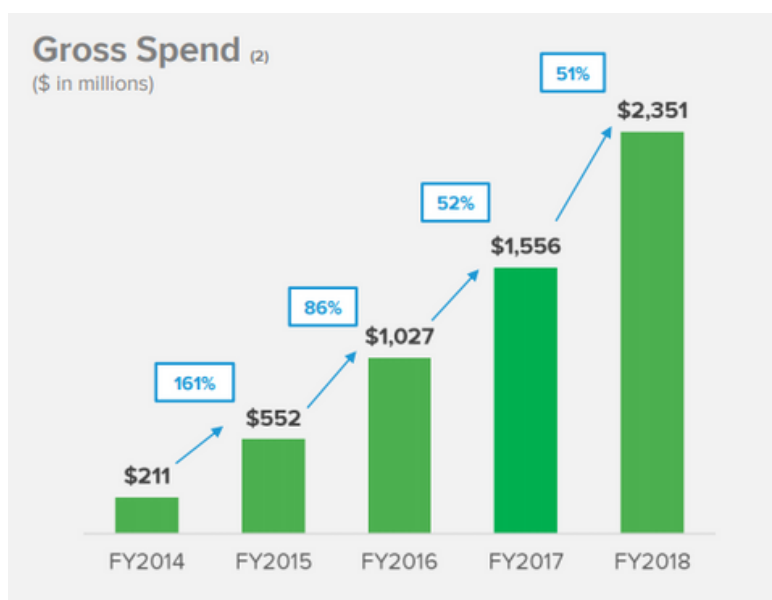
## INCOME STATEMENT

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Revenue	\$ 164,203	\$ 118,825	\$ 445,114	\$ 316,826
Operating expenses:				
Platform operations	39,932	29,344	108,913	78,842
Sales and marketing	36,142	23,287	89,951	60,007
Technology and development	29,185	22,621	83,949	59,806
General and administrative	37,017	21,310	102,755	59,816
Total operating expenses	142,276	96,562	385,568	258,471
Income from operations	21,927	22,263	59,546	58,355
Other expense (income):				
Interest expense (income), net	(1,480)	(237)	(3,763)	(113)
Foreign currency exchange (gain) loss, net	(412)	395	784	2,035
Total other expense (income), net	(1,892)	158	(2,979)	1,922
Income before income taxes	23,819	22,105	62,525	56,433
Provision for income taxes	4,397	1,813	5,152	7,728
Net income	\$ 19,422	\$ 20,292	\$ 57,373	\$ 48,705
Earnings per share:				
Basic	\$ 0.43	\$ 0.47	\$ 1.29	\$ 1.15
Diluted	\$ 0.40	\$ 0.44	\$ 1.20	\$ 1.07
Weighted average shares outstanding:				
Basic	44,771	42,721	44,363	42,178
Diluted	48,037	46,576	47,728	45,460

The first topic that must be discussed when talking about a tech SaaS company is the top line growth. TTD saw a 38% increase in revs Y/Y to \$164.2M. In Q3 2018 vs Q3 2017, the company grew revs 50% Y/Y. While this is down from a percentage standpoint, the actual number amount is about \$5M more in growth Y/Y. In other words, from Q3 2017 to Q3 2018, the company grew revs by around \$40M. This year they grew revs Y/Y by a little over \$45M.

YTD revenues are up 40% to \$445M and management expects full year revenues for 2019 to come in around \$658M, up from the previous guidance of \$653M. This implies FY19 growth of 37.9% and also implies sequential Q/Q growth of 29.7% (granted Q4 is their strongest quarter) but from a relative standpoint Q3 to Q4 growth in 2018 was 35%.

Given the fact that it seems TTD makes about 20% off gross spending on their platform, it should be safe to assume that gross spend for 2019 should be around \$3.2-3.3B given the FY19 rev guidance.



CUBE is pretty impressed to say the least at TTD's financial discipline. Not only is this one of the few companies growing revenues nearly 40-60% per year for the last several years, they've been able to do so profitably.

YTD, the company has brought in \$1.29 in EPS vs. \$1.15 last year. What's even more impressive is how well TTD has been scaling their business.

View the following images:

#### Platform Operations

	2019	2018	Change	
			\$	%
	(\$ in thousands)			
Three months ended September 30,	\$ 39,932	\$ 29,344	\$ 10,588	36%
<i>Percent of revenue</i>	24%	25%		
Nine months ended September 30,	\$ 108,913	\$ 78,842	\$ 30,071	38%
<i>Percent of revenue</i>	24%	25%		

#### Sales and Marketing

	2019	2018	Change	
			\$	%
	(\$ in thousands)			
Three months ended September 30,	\$ 36,142	\$ 23,287	\$ 12,855	55%
<i>Percent of revenue</i>	22%	20%		
Nine months ended September 30,	\$ 89,951	\$ 60,007	\$ 29,944	50%
<i>Percent of revenue</i>	20%	19%		

#### Technology and Development

	2019	2018	Change	
			\$	%
	(\$ in thousands)			
Three months ended September 30,	\$ 29,185	\$ 22,621	\$ 6,564	29%
<i>Percent of revenue</i>	18%	19%		
Nine months ended September 30,	\$ 83,949	\$ 59,806	\$ 24,143	40%
<i>Percent of revenue</i>	19%	19%		

#### General and Administrative

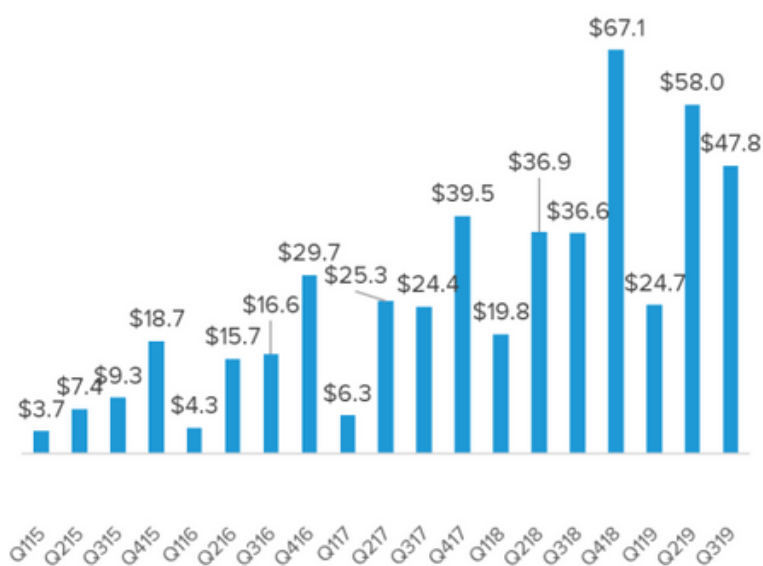
	2019	2018	Change	
			\$	%
	(\$ in thousands)			
Three months ended September 30,	\$ 37,017	\$ 21,310	\$ 15,707	74%
<i>Percent of revenue</i>	23%	18%		
Nine months ended September 30,	\$ 102,755	\$ 59,816	\$ 42,939	72%
<i>Percent of revenue</i>	23%	19%		

On a Y/Y basis in which TTD has generated an extra \$130M in revenue thus far, they've virtually grown their expenses as a portion of revenues in lock step.

- Platform operation expenses made up 25% of revs last year vs. 24% this year
- Sales & marketing expenses made up 19% of revs last year vs. 20% this year
- Tech & development expenses made up 19% of revs last year vs. 19% this year
- General & admin expenses made up 19% of revs last year vs. 23% this year - much of that disparity came in the most recent quarter

After watching several interviews with the CEO Jeff Green, it is extremely apparent the company is focused on bottom line earnings to invest in growth. This is much of the reason the company has little debt on hand and hasn't done an equity offering since May of 2017. If we look at the chart below, we see that TTD has been EBITDA positive since Q1 of 2015.

**Adj. EBITDA** (\$ in millions)



### Some other key takeaways:

- Omnichannel Spend Growth:
  - Total Mobile (in-app, video, and web) was 48% of gross spend for the quarter
  - Mobile Video spend grew 50% from Q3 2018 to Q3 2019
  - Mobile In-App spend grew 58% from Q3 2018 to Q3 2019
  - Connected TV spend grew 145% from Q3 2018 to Q3 2019
  - Audio spend grew over 160% from Q3 2018 to Q3 2019

This is important snippet from the quarterly results because if you also dive into management's prepared remarks they are most excited about connected TV and audio placed advertisements. These segments have been seeing huge triple digit growth figures and this is what management expects to keep the pace of total revs growing in 2020. The example I used above with Hulu was a connected TV revenue stream example.

This is a unique area right now because companies like Netflix don't want to place ads on their platform but the only way they can ever achieve positive cash flow is if they either increase prices or welcome an ad-based viewing plan. Management at TTD believes that there isn't much room left for increased prices on streaming platforms and they believe these content creators will have no choice but to accept the fact that more ads are the only way they are going to be able to produce the content they are creating at a profit.

CUBE believes this argument holds weight but slightly disagrees on what the consumer is willing to pay. We believe the stickiness of these platforms and the pace at which consumers are cutting the cord leaves considerable upside for increased prices for Netflix and others.

This doesn't mean we don't think they will adopt an advertisement included plan but do feel it will be resisted for quite a bit longer as the Netflix in particular continues to test out how much their user base is willing to spend before finally throwing in the towel. Regardless, the uptrend in connected TV ads should only continue especially on platforms like Roku and Hulu as it makes sense from an ROI standpoint where more companies will want to book that space. It also helps that more and more consumers are adopting smart TVs that will further enable consumers to purchase their products with far less steps in between.

Circling back momentarily to one of the cons laid out earlier is that we feel TTD is susceptible to greater risk if the economy does take a turn south. Generally, recessions hit the advertising business with ferocity as the last one trimmed overall ad spending by 9% according to market researchers Veronis Suhler Stevenson. Online advertising plummeted 27% over two years during the last recession.

A part of me does believe there is a possibility digital advertising holds up better in the next recession but find it difficult to believe it will rise during it. For example, when you look at many tech companies today like Alteryx and Tableau they are designed to lean our your workforce, save you time, and make your business more efficient. In tough economic times, there is actually a strong possibility these types of companies continue to grow as their value proposition becomes even more evident as to how it can save their clients more on the bottom line AKA the thing everyone seems to care about during a tough economic environment. On the other hand, advertising budgets, while studies show can get higher ROI during tough times, is usually one of the first things companies pull back on to cut costs. Considering TTD launched in 2009 and went public in 2016, we don't have any historic data to look back on.

# FINANCIAL STATEMENTS

## CASH FLOW

	Nine Months Ended September 30,	
	2019	2018
<b>OPERATING ACTIVITIES:</b>		
Net income	\$ 57,373	\$ 48,705
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	15,246	8,107
Stock-based compensation	56,368	27,958
Bad debt expense	1,647	1,727
Noncash lease expense	15,394	—
Other	(2,945)	2,396
Changes in operating assets and liabilities:		
Accounts receivable	(2,739)	(44,736)
Prepaid expenses and other assets	(19,024)	(10,597)
Accounts payable	(21,401)	(2,804)
Accrued expenses and other liabilities	(3,178)	7,789
Operating lease liabilities	(8,468)	—
Net cash provided by operating activities	<u>88,273</u>	<u>38,545</u>
<b>INVESTING ACTIVITIES:</b>		
Purchases of property and equipment	(21,659)	(10,383)
Capitalized software development costs	(3,849)	(4,340)
Purchases of investments	(178,179)	—
Maturities of investments	55,819	—
Net cash used in investing activities	<u>(147,868)</u>	<u>(14,723)</u>
<b>FINANCING ACTIVITIES:</b>		
Repayment on line of credit	—	(27,000)
Payment of debt financing costs	(6)	—
Proceeds from exercise of stock options	21,911	7,165
Proceeds from employee stock purchase plan	8,648	7,014
Taxes paid related to net settlement of restricted stock awards	(4,744)	(602)
Net cash provided by (used in) financing activities	<u>25,809</u>	<u>(13,423)</u>
(Decrease) increase in cash and cash equivalents	(33,786)	10,399
Cash and cash equivalents—Beginning of period	207,232	155,950
Cash and cash equivalents—End of period	<u>\$ 173,446</u>	<u>\$ 166,349</u>



What has potentially been the most impressive statistic from TTD has been their ability to generate free cash flow. Nine months into the year, TTD has created \$88M in operating cash flow and when deducting for capital expenditures of \$21M, the company has generated free cash flow of \$67M so far this year and is most likely on pace to close the year out with nearly \$100M in free cash flow.

For those that know CUBE, cash flow is king to us. If, and when, the company is ready they will be able to create a share buyback and/or dividend plan.

The \$178M in investments outflow is what TTD is doing with a large portion of their cash. If you scroll up to the beginning, they are putting their cash to work in commercial paper, government debt, and corporate debt. This tells CUBE that TTD is fairly comfortable with their cash position and finds it more suitable to let that cash earn a little bit of a return while it sits there.

# SOME OTHER KEY STATS

2019 EBITDA Guidance

**\$208M**

Earnings before Interest, Taxes, Depreciation, Amortization

Gross Margins

**76.2%**

$(\text{Revenues} - \text{Cost of Goods Sold}) / \text{Revenues}$

Quick Ratio

**1.6x**

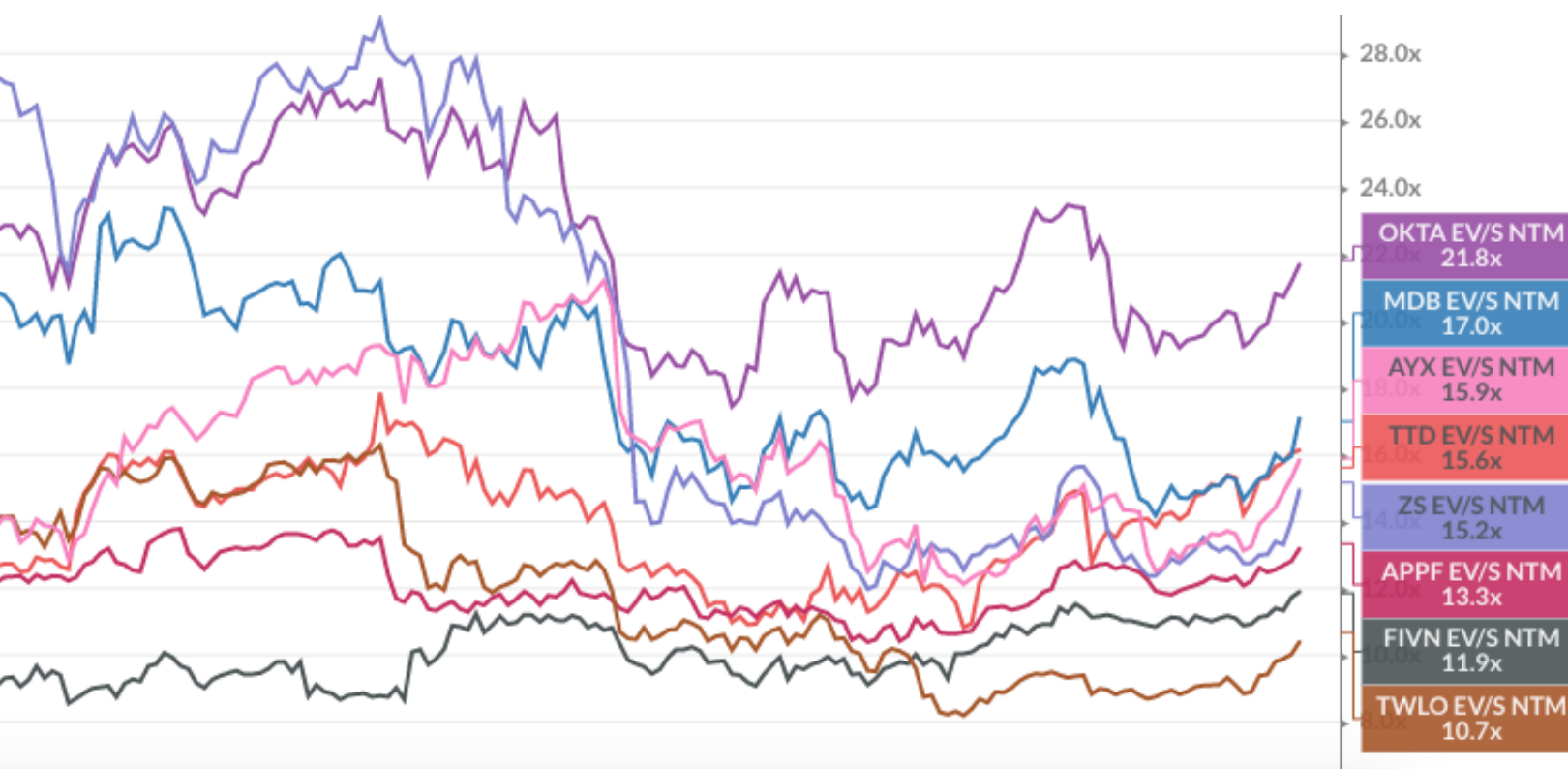
Compares the total amount of cash and cash equivalents + marketable securities + accounts receivable to the amount of current liabilities.

2020 Wall Street Rev  
Growth Expectations

**30.5%**

# FUNDAMENTAL ANALYSIS

On a forward enterprise value (market cap + debt - cash) to sales ratio, none of these tech companies are cheap by any means. As per our own investment philosophy, CUBE refuses to ever pay more than 20x sales for a company so in this case OKTA would not even be considered. TTD trades at 15.6x next year's sales with an assumed 30% growth rate. This is around the middle of the pack for an SaaS company with good growth today.



When it comes to analyzing these tech companies the main justifications for higher EV/Sales or P/S multiples are:

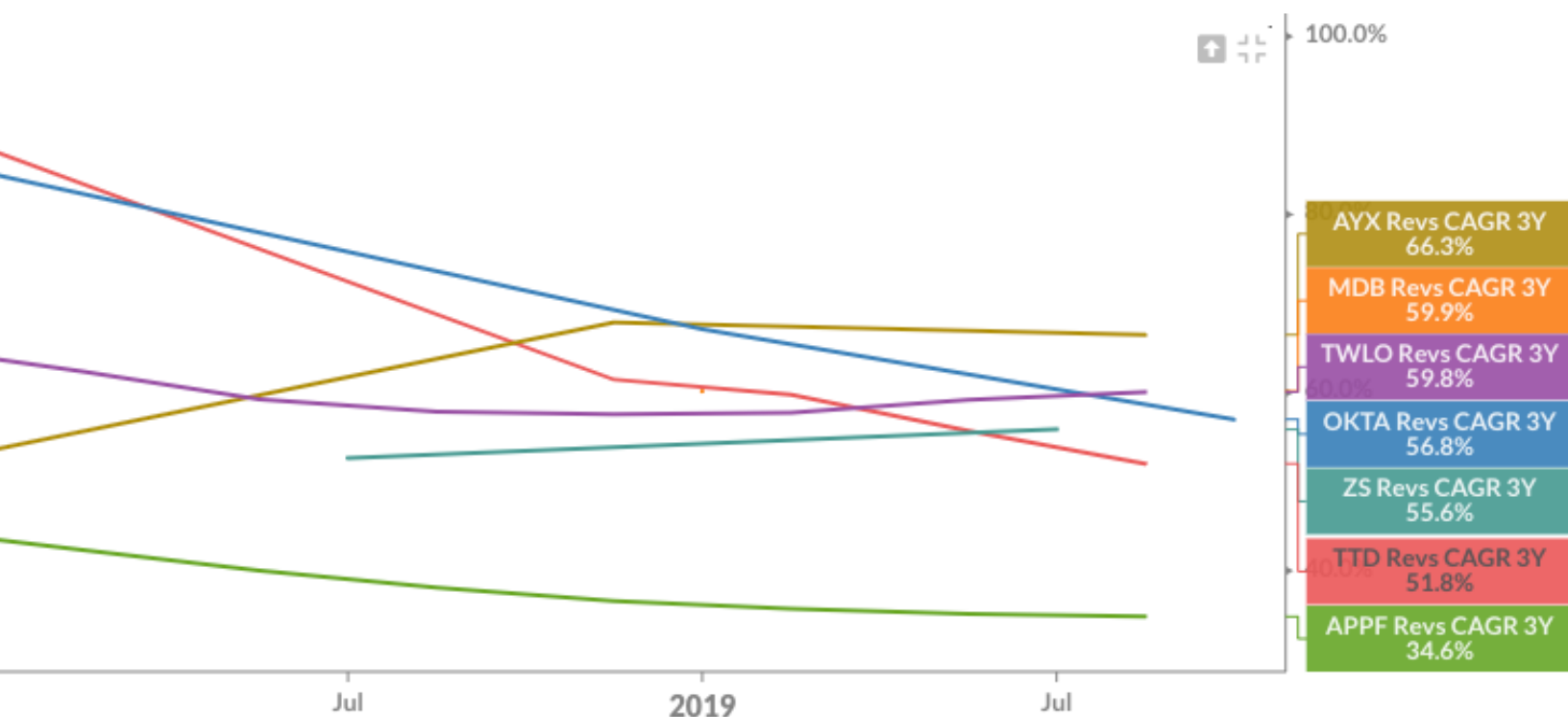
1. Growth
2. Margins

Both of which TTD has as we have already discussed and will see in coming pages.

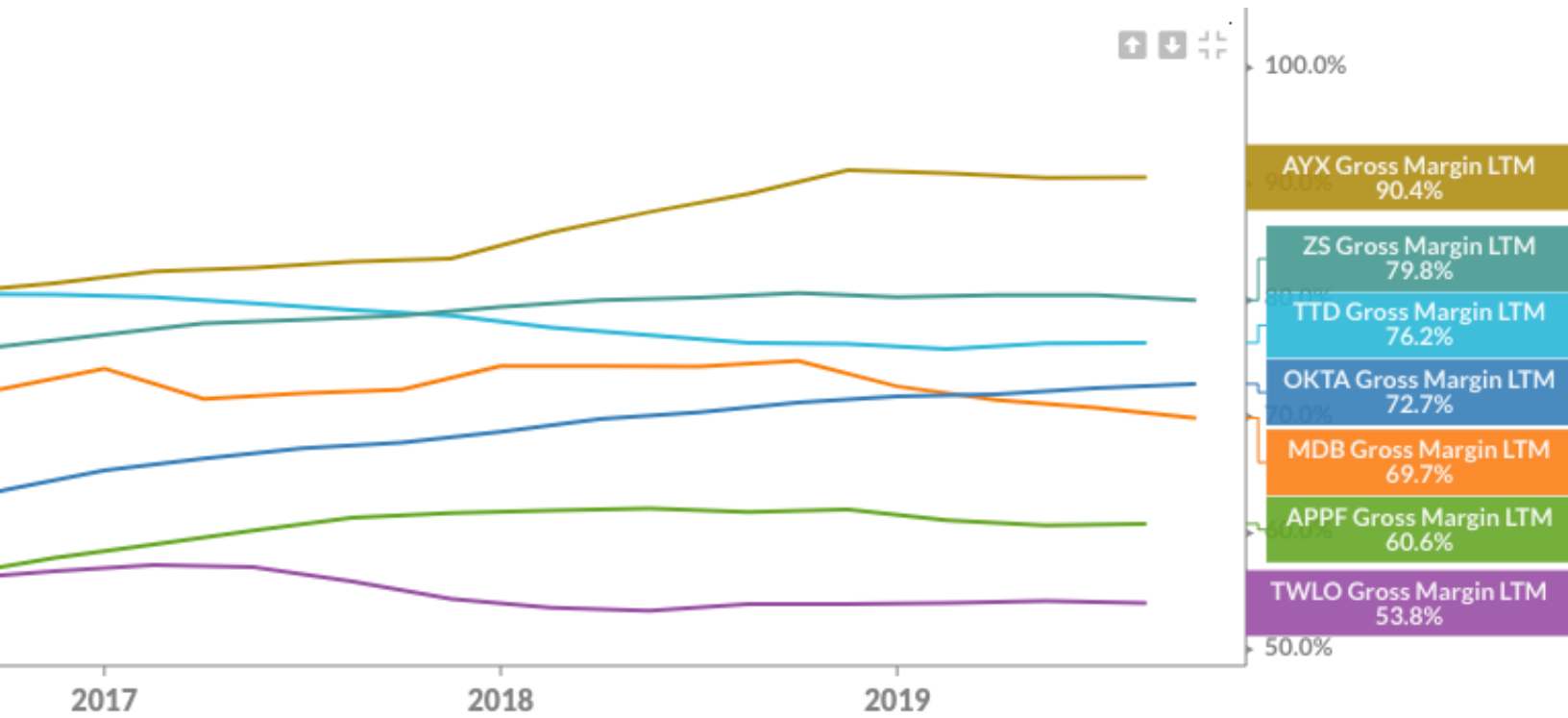
If we look at the three year compounded annual revenue growth rate, we'll see TTD is towards the lower end around 51.8%. This is still impressive but Alteryx (AYX) actually leads the group with 66.3%.

Looking out into next year, analysts expect TTD to post revenue growth of 30%. In most cases, when an SaaS company begins to grow at less than 30% the Street starts to look for margin expansion and profitability because the "investing for growth" philosophy is coming to an end and shareholders want to see their money returned to them via profits.

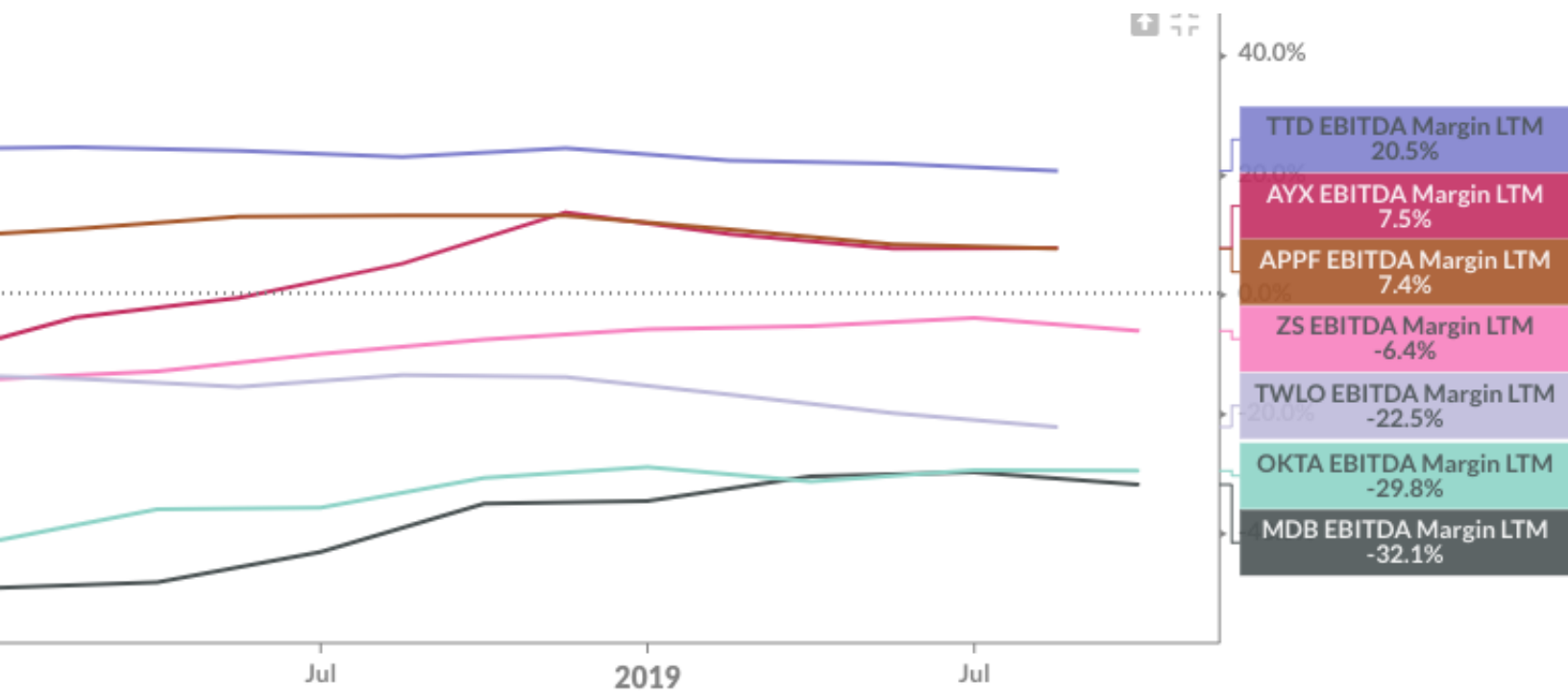
The good thing for TTD is that they are already showing the Street much better margins than their peers in the industry and are cash flow positive and profitable. This is much of the reason TTD is able to get their premium valuation despite growing at a slower rate than the others.



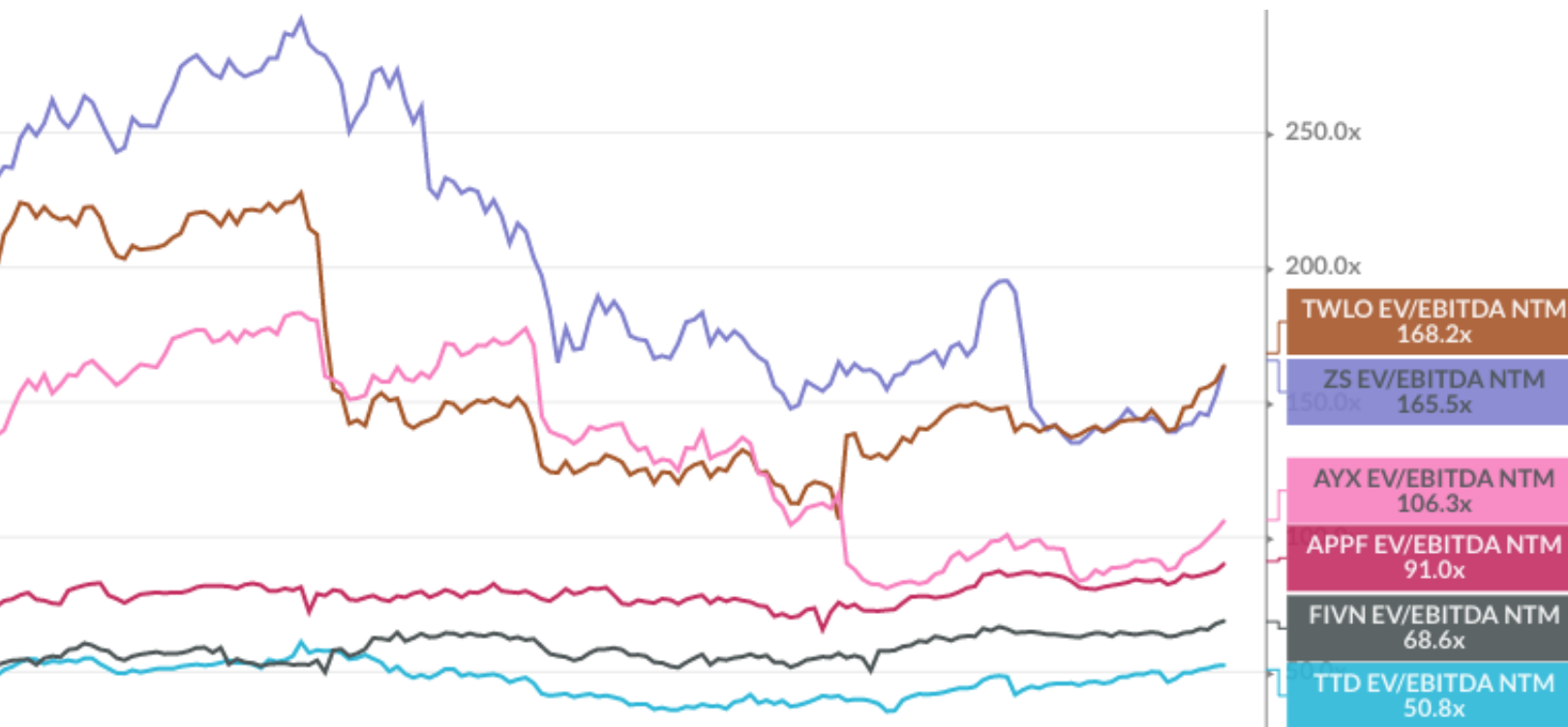
We mentioned margins earlier. Here we see that TTD is towards the top of the pack with gross margins over the last twelve months at 76.2%. AYX is the only one in a league of its own with gross margins over 90%.



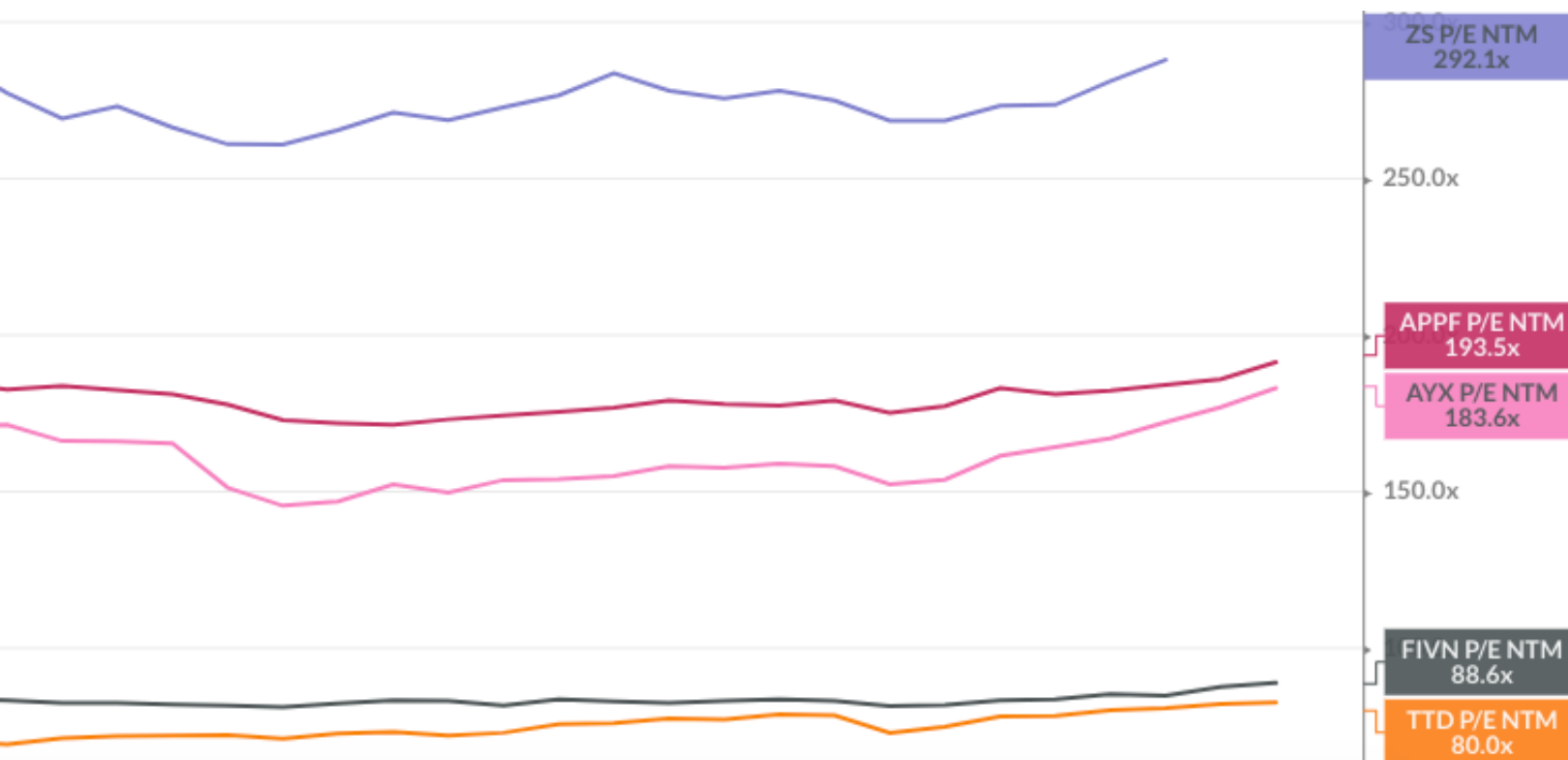
What separates TTD drastically is how they are able to take those gross profits and pass them down to earnings so well. As we can see, this is where TTD really shines with EBITDA margins of 20.5% while many of their SaaS peers are deep in the red.



With this in mind, let's now analyze their valuations from an EBITDA perspective. You'll notice right away that OKTA and MDB aren't on this list because they are not expected to generate any EBITDA in 2020. TTD, on the other hand, trades at 50.8x EBITDA which, all things considered, is pretty attractive. TWLO and ZS, for example, trade at 168x and 165x, respectively.



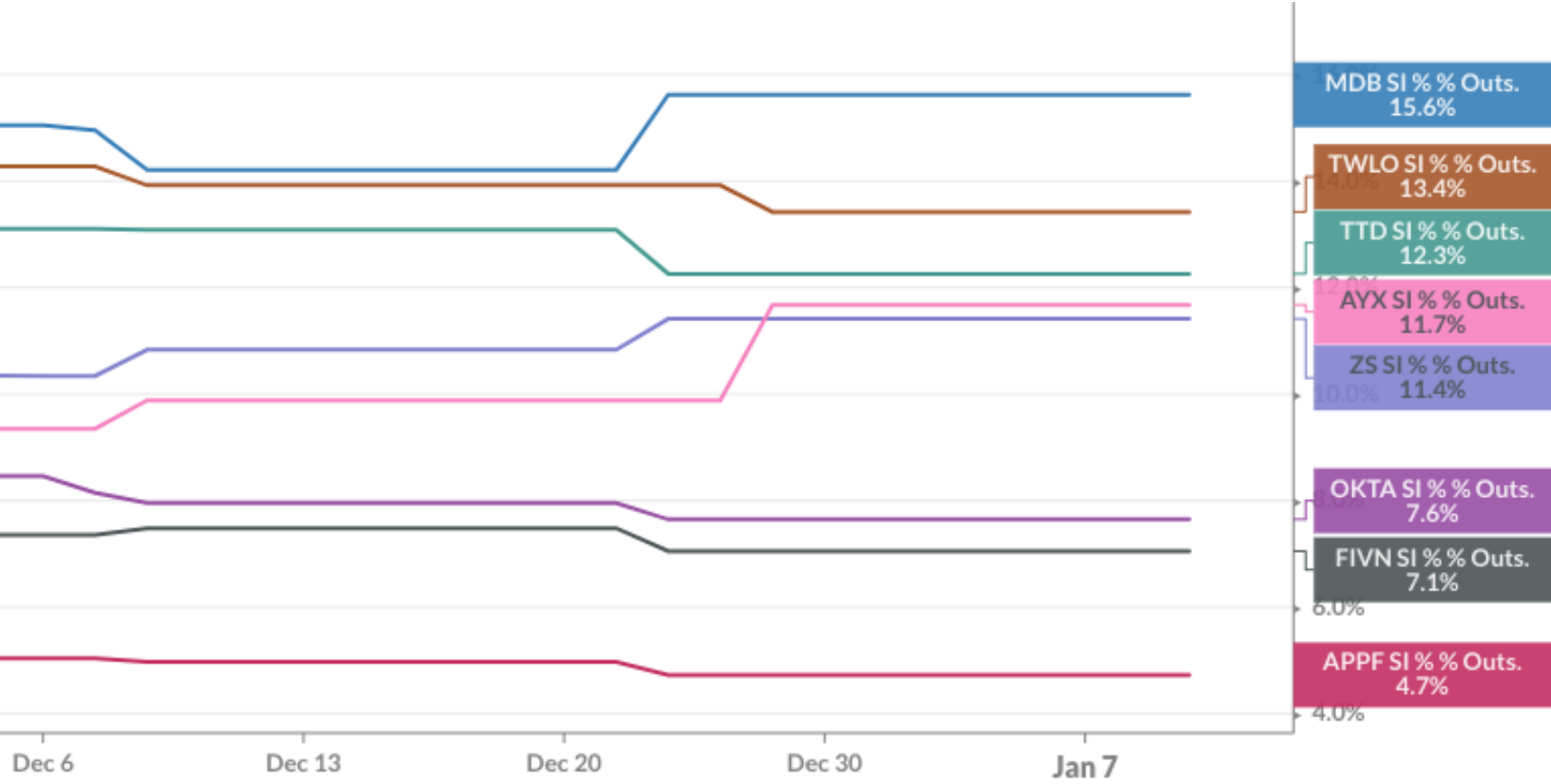
If we look at earnings, only TTD and FIVN are in the double digits in the 80x area. Many of these SaaS companies are not focusing on profits right now and are investing heavily in marketing but TTD is already ahead of the pack making them attractive from a fundamental investor standpoint.



Last but not least, we wanted to bring to light a stat that isn't talked about very often. This is short interest as a percent of outstanding shares. There are some pretty big bets against these SaaS companies as 12.3% of TTD's shares are currently shorted. As we can see, many are in the double digits as people believe these companies are valued a bit too high.

This can mean that they are either:

- A. Right and shares will correct themselves to the downside
- B. Wrong and these companies can turn their growth into profits causing a short squeeze that can lead their stock prices and valuations even higher.



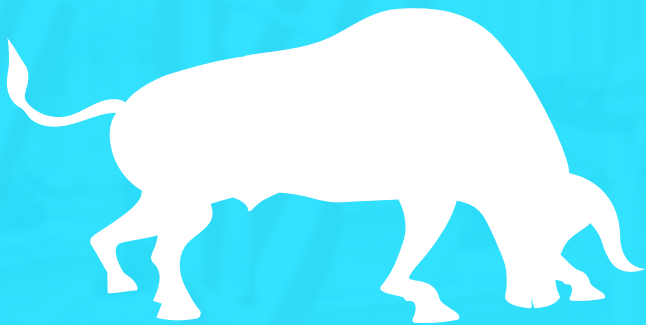
# TECHNICAL ANALYSIS



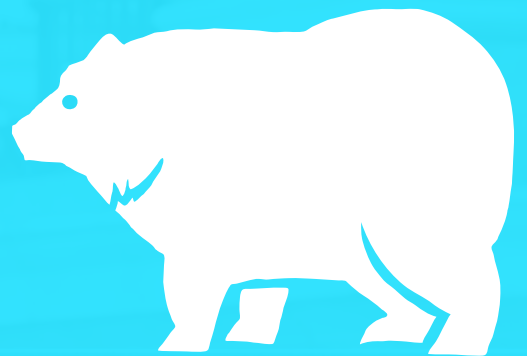
Based on the charts, it looks like TTD is due for a bit of a pullback. The stock is historically very volatile and a visit to the 20DMA of \$266.42 looks to be in the cards considering how overbought the stock is on the RSI, MFI, and Wm%R indices. I also arrive at this conclusion because the stock was recently rejected by the R1 resistance level and generally after that happens a stock will return to its nearest support level before attempting to give it another try. If the 20DMA holds, I believe it will revisit the R1 level. If not, I believe the stock revisits the pivot point level of \$253.05.



# BULLISH OR BEARISH?



VS.



**MORE BULLISH  
(POSITIVE)**

**MORE BEARISH  
(NEGATIVE)**





# TTD CONCLUSION

All in all, The Trade Desk is an impressive company and is something that CUBE will be adding to the CUBEfolio watchlist. Given the recent run up, we feel the short-term risk/reward tradeoff is a bit skewed towards more risk than reward. At more than 15x sales the company is expensive with growth rates expected to come in at 30% next year but TTD does make up for it a bit by generating net income and positive cash flow while many of their peers can't say the same.

CUBE feels that in the long-term there is additional upside but much of its run may be behind it. In other words, CUBE doesn't expect a similar 850% return over the next 3 years. In fact, the next 3 years for TTD will be very interesting as the company may face new competition, growth rates in the mid-teens, a recession that tends to force companies to reduce advertisement budgets, and potentially a more challenging data environment that could prohibit how well they are able to target consumers for their clients.

In conclusion, we do feel the pros outweigh the cons at TTD. As long as the company can keep growth above 20% and grow their bottom line, they should be able to march higher.

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