

DISCLAIMER

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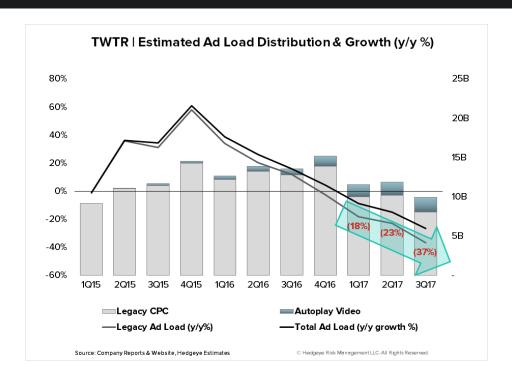
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TWTR | LONG THESIS SUMMARY

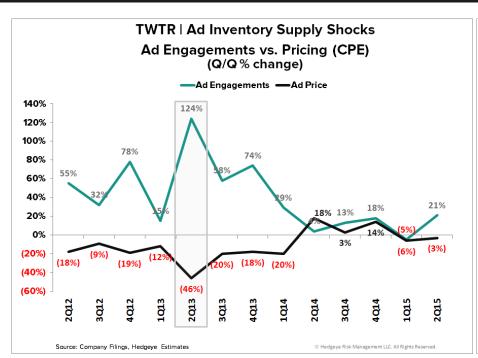
- **1. Business Model**: Primarily a CPC ad model, which requires user interaction with ads to generate revenue (excluding Autoplay, which is more of a CPM product).
- 2. <u>Analysis</u>: TWTR's CPC model became structurally defunct after pushing too many of its users away with surging ad load. TWTR was forced to restructure, in turn deemphasizing CPC in favor of Autoplay.
- 3. Outlook: The restructuring created more runway for Autoplay, which we estimate monetizes at a higher effective CPM and requires less ad load. Further, Legacy CPC should become less of a drag in 2018.
- **4. Setup:** Seems somewhat toppy after its recent run, but expect sentiment to improve on double-digit revenue growth, which could happen by as early as 1H18.
- **5. Position:** Long likely through 2018, reassess after.

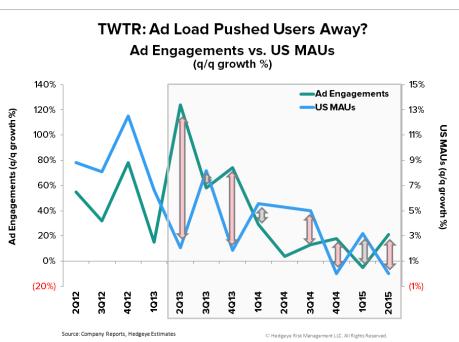


MODEL IS NOW BUILT FOR SUSTAINABLE GROWTH

TWTR's prior monetization strategy was unsustainable since its two growth drivers were working against each other (user growth & ad load), and the model failed in 2Q16. TWTR has since used the restructuring to right-size its model in terms of ad load while also prioritizing Autoplay, which reduces its dependence on ad load and takes pressure off its MAU growth.

USERS STARTED RESISTING AD LOAD

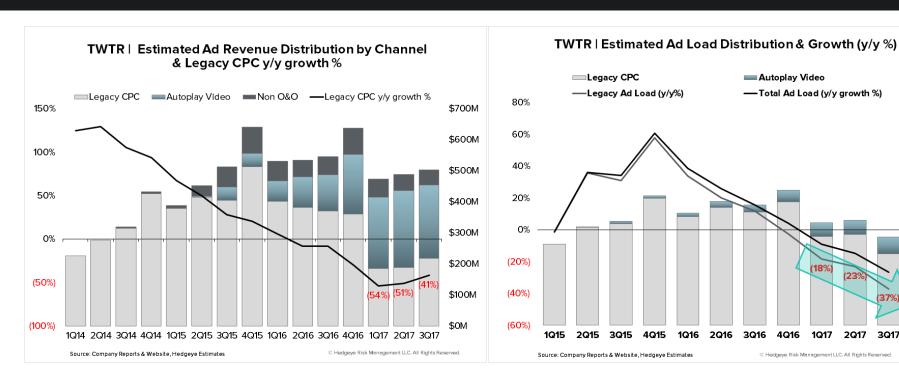




SO MONETIZATION & MAU GROWTH STARTED WORKING AGAINST EACH OTHER

As a reminder, the chart to the left suggests TWTR's ad engagements are an understated proxy for ad load. The chart to the right suggest that the story turned following what we call the "2Q13 Supply Shock", where ad engagements started moving in the opposite direction of MAUs, suggesting that the more TWTR increased ad load the more it pushed its users away.

NATURALLY CPC AD REVENUE FELL OFF A CLIFF



ALONGSIDE DOUBLE-DIGIT DECLINES IN CPC AD LOAD

Some of the CPC declines can be attributed to pricing and shifting ad budgets toward Autoplay. But on the latter, remember that the salesforce cuts focused primarily on reps selling direct response ads (more CPC), which likely resulted in revenue attrition. More importantly, TWTR appears to have considerably gutted ad load, which is now closer to 2015 levels...

25B

20R

15B

10B

2Q17

1Q17

3Q17

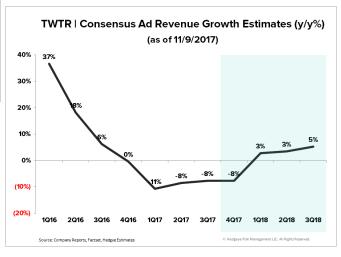
DOUBLE-DIGIT AD REV GROWTH WITHIN REASON

TWTR O&O Ad Revenue Growth Scenario Analysis (4Q17)						
	Autopla	y vs. Legacy I	Revenue Grov	vth (y/y%)		
Legacy	Autoplay					
Legacy	10%	30%	50%	70%	90%	
0%	3%	10%	17%	24%	31%	
-5%	0%	7%	14%	21%	28%	
-10%	-3%	4%	11%	18%	25%	
-15%	-6%	1%	8%	15%	21%	
-20%	-10%	-3%	4%	11%	18%	
-25%	-13%	-6%	1%	8%	15%	
-30%	-16%	-9%	-2%	5%	12%	
-35%	-19%	-12%	-5%	1%	8%	
-40%	-23%	-16%	-9%	-2%	5%	

TW	TWTR O&O Ad Revenue Growth Scenario Analysis (1Q18)					
	Autoplay	vs. Legacy R	evenue Grov	vth (y/y%)		
Legacy		Autoplay				
Legacy	10%	30%	50%	70%	90%	
0%	6%	17%	28%	39%	50%	
-5%	3%	14%	25%	37%	48%	
-10%	1%	12%	23%	34%	45%	
-15%	-1%	10%	21%	32%	43%	
-20%	-3%	8%	19%	30%	41%	
-25%	-6%	5%	17%	28%	39%	
-30%	-8%	3%	14%	25%	37%	
-35%	-10%	1%	12%	23%	34%	
-40%	-12%	-1%	10%	21%	32%	

TWTR O&O Ad Revenue Growth Scenario Analysis (2Q18)							
Autoplay vs. Legacy Revenue Growth (y/y%)							
Legacy	Autoplay						
Legacy	10%	30%	50%	70%	90%		
0%	6%	17%	28%	40%	51%		
-5%	4%	15%	26%	38%	49%		
-10%	1%	13%	24%	36%	47%		
-15%	-1%	11%	22%	33%	45%		
-20%	-3%	8%	20%	31%	43%		
-25%	-5%	6%	18%	29%	40%		
-30%	-7%	4%	16%	27%	38%		
-35%	-9%	2%	13%	25%	36%		
-40%	-12%	0%	11%	23%	34%		

TWTR O&O Ad Revenue Growth Scenario Analysis (3Q18)					
	Autoplay vs.	Legacy Reve	enue Growth (y/y%)	
1	Autoplay				
Legacy	10%	30%	50%	70%	90%
0%	5%	16%	26%	37%	47%
-5%	3%	13%	24%	34%	45%
-10%	0%	11%	21%	32%	42%
-15%	-2%	9%	19%	29%	40%
-20%	-4%	6%	17%	27%	37%
-25%	-7%	4%	14%	25%	35%
-30%	-9%	1%	12%	22%	33%
-35%	-11%	-1%	9%	20%	30%
-40%	-14%	-3%	7%	17%	28%



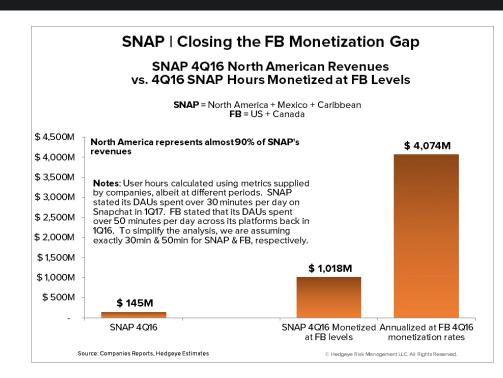
	Historical Revenue Growth (est)			
	4Q16	1Q17	2Q17	3Q17
Legacy	(30%)	(54%)	(51%)	(41%)
Autoplay	352%	253%	151%	104%

SINCE CPC WILL HAVE LESS OF A STRANGLEHOLD ON THE MODEL

We're not trying to emphasize TWTR's potential Autoplay revenue growth as much as waning impact that Legacy CPC will have on the model now that it's a smaller portion of the pie. Note this analysis doesn't include non-O&O, which we expect to be a 1-2 point drag on growth.

SNAP | SHORT THESIS SUMMARY

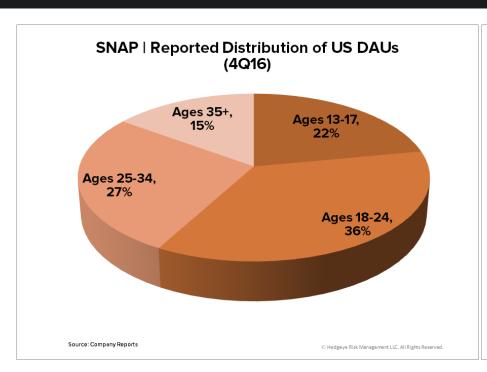
- **1. Business Model**: Messaging app/media platform, Nearly all of SNAP's revenue comes from advertising
- **2.** Analysis: SNAP's current user engagement levels suggest ample room for near-term revenue growth, but it's longer-term DAU, and resulting monetization prospects may be limited.
- **3.** Outlook: DAU growth to be lumpy at best. Consensus overshooting SNAP's 2017/2018 revenue growth prospects given both demand and supply constraints
- **4.** <u>Setup</u>: Sentiment has turned considerably since we went short. Some squeeze risk on anything less than terrible results, but that's what we're expecting for 2H.
- **5. Position**: Likely staying short through at least 1H18.

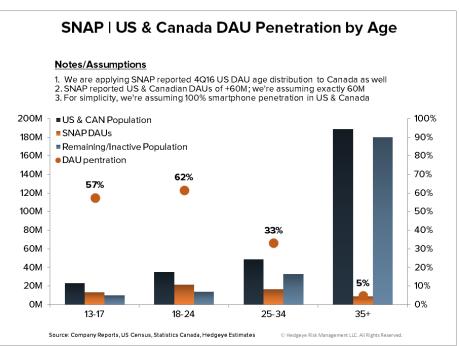


STREET DEMANDS ARE JUST TOO MUCH

SNAP's current engagement levels suggests it has a lot of headroom for near-term revenue growth, but the street expectations are anchored more on sound bites than tangible prospects. SNAP would be challenged to meet 2017/2018 growth expectations even on flawless execution, but it has both internal & external headwinds that will prevent it from doing so.

SNAP HEAVILY PENETRATED IN CORE NA DEMOS

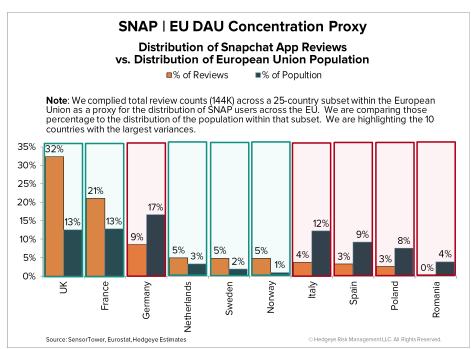


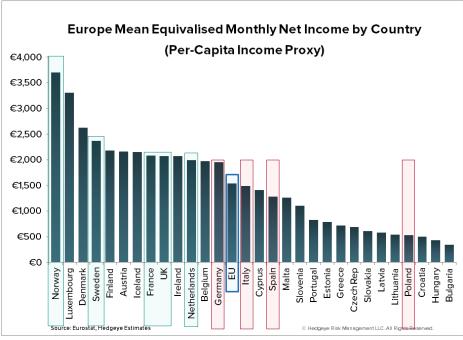


REMAINING US & CANADIAN TAM HEAVILY FAVORS OLDER DEMOS

Note we are using 4Q16 since SNAP hasn't provided a 1Q17 update. 85% of SNAP's US users are under the age of 34 (metrics from the S-1). We married those percentage in the left chart to US & Canadian populations by age while assuming 100% smartphone penetration and exactly 60M users (vs. "over 60M"). All in, those DAU penetration rates are likely understated.

EU PENETRATION FAVORS WEALTHIER COUNTRIES...





INCOME SEEMS TO MATTER MORE THAN POPULATION SIZE

The chart to the left is a meant to compare review distribution (as a proxy for user distribution) in relation to population size. The output suggests that countries with disproportionately higher review counts had per-capita income above the EU average. Italy, Spain, & Poland were all below the EU average. Germany was the outlier, which is likely due to...

ANYONE KNOW WHERE \$1B/\$2B REVENUES CAME FROM?

<u>2017</u>

Consensus Revenue: \$987M

Snapchat is telling investors it will be a billion dollar company next year

According to an investor pitch deck TechCrunch got its hands on, Snapchat is targeting revenue of \$250 million to \$350 million in 2016 — the same target **Recode** reported earlier this year. It hit \$57 million in revenue in 2015, surpassing the \$50 million target the company was looking for (and **Recode** also reported). A nice year-over-year jump.

Snapchat expects that revenue number to jump significantly next year, too, to somewhere between \$500 million and \$1 billion, TechCrunch found. That's part of the appeal for investors, who just dumped \$1.8 billion into the company's Series F funding round,

Recode - 5/26/16 - link

<u>2018</u>

Consensus Revenue: \$1,913M

Goldman Sachs is predicting that Snap will deliver \$2 billion in revenue in 2018

Goldman Sachs, one of the lead banks on Snap's initial public offering, estimates that revenues for the social-media company could hit nearly \$2 billion in 2018. That's nearly five times last year's sales.

The information was relayed to Business Insider by somebody who had been briefed on the bank's research estimates. The figures are being cited by Goldman's sales force when speaking with prospective investors, the person said.

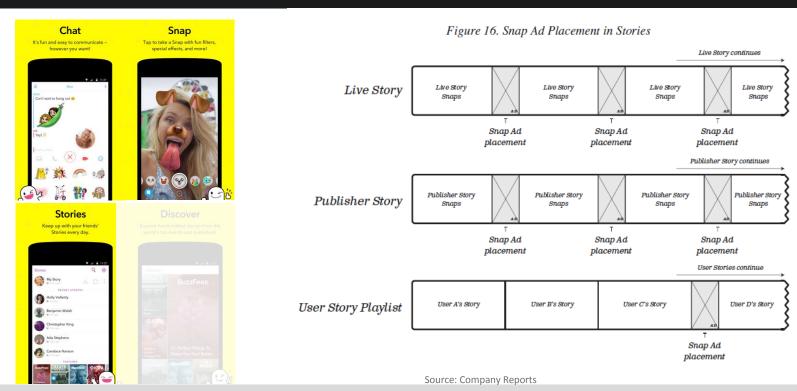
Snap is on the road this week meeting investors and a key question is how much the company, whose Snapchat app is known for its disappearing photos, can grow its user base. Goldman estimates that the company

Business Insider – 2/21/17 - <u>link</u>

THE STREET IS ANCHORING OFF OF SOUND BITES

We're not sure if mgmt has ever publicly stated that \$1B was in reach for 2017; even if it did, the comment originated back in 2Q16 when SNAP was doing \$72M in quarterly revenue. The \$2B 2018 estimates may have been sourced directly from a banker pre-IPO. Mgmt chose not to issue guidance, so consensus took the sound bites as gospel.

SNAP MAY HAVE AN INVENTORY PROBLEM



METRICS SUGGEST USERS AREN'T USING THE DISCOVER SECTION

Back in 4Q16, Snapchat users spent an average of 25-30 minutes per day on Snapchat, opening the app 18x/day on average. That translates to ~1.5min per session, which suggests that users aren't consuming Publisher Stories and/or Live Stories, which is where the bulk of its ad inventory lives.

YELP | SHORT CASE (SUMMARY)

- **1.** Business Model: Primarily Local Advertising. YELP sells ad packages to small & medium businesses (SMBs), primarily under annual contracts. Majority of sales are driven by its salesforce.
- **Analysis:** The model is predicated on driving new account growth in excess of its churn, which we estimate is the overwhelming majority of its SMB accounts annually. It does so primarily by aggressively hiring sales reps, albeit at a persistently declining yield.
- **3.** Outlook: Both attrition and new account growth are moving in the wrong direction, so YELP might report declining net accts in the next 12-24 months. The GRUB deal reduces the prospects of being saved by M&A.
- **4.** <u>Setup</u>: Expect YELP to either disappoint on the 2018 guide or miss revenue estimates shortly after. However, 4Q17 may be another noisy print.
- **5. Duration**: Depends on mgmt and/or consensus.

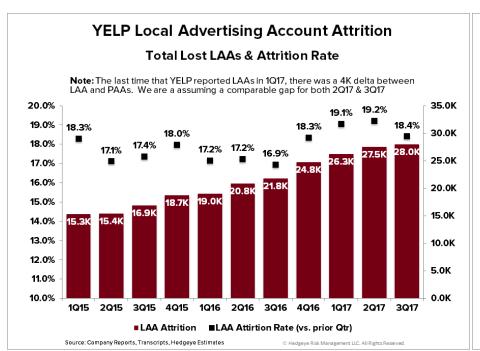
Scenario Analysis Flexed by Self-Serve % of PAA Growth (3Q17) 15% 7% 5% (5%)(15%)(15%) (25%)(24%) "Since the start of the year, we've (35%)improved the onboarding flow, which has (34%)helped increase self-serve campaign (45%)starts by nearly 70% compared to the (48%)same period last year." (55%) - Charles Baker, CFO - 3Q17 Earning Call (65%)(64%)(75%)25% 30% 35% 45% 50% 3Q17 Self-Serve (SS) Percentage of New PAA Growth Source: Company Reports, Hedgeve Estimates C Hedgeve Risk Management LLC, All Rights Reserved.

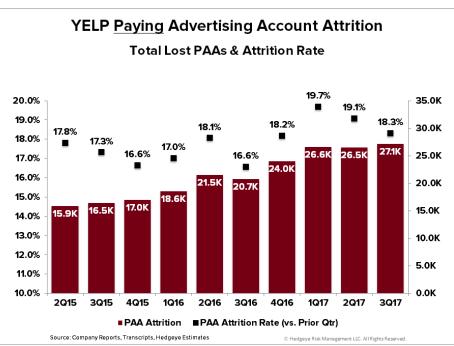
YELP | Salesforce-Driven New PAA Growth (y/y%)

THE ROAD TO RESTRUCTURING

Despite the surge in net account growth over the past two prints, the story actually took a turn for the worse since it's now pretty clear that YELP's salesforce-driven new account growth has started declining despite its growing salesforce; that dynamic means the model has failed since there isn't enough demand/TAM to support it.

QUARTERLY ATTRITION IS A RECURRING THEME...





REGARDLESS OF HOW YELP REPORTS ITS ACCOUNT METRICS

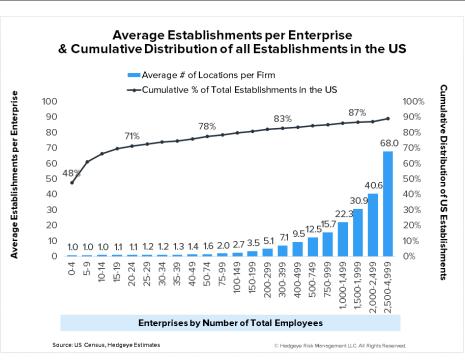
YELP has changed its account metric 2 times since 2014 (ALBAs → LAAs → PAAs). We will continue referring to LAAs moving forward since YELP didn't provide a long enough PAA time series to calculate growth rates prior to 1Q16. Note that PAAs are reported in round numbers, so there's greater margin of error in calculating attrition/growth. Regardless, the story hasn't changed.

NATIONAL MAY JUST BE LOCAL BY ANOTHER NAME...

YELP	YELP Local Advertising Revenue Growth vs. National Advertising Growth Commentary (y/y %)				
	Local	National Advertising Revenue Growth commentary			
QTR	Advertising	National Advertising Revenue Growth Commentary			
4Q16	36%	"National revenue growth accelerated into the high 30% range"			
1Q17	25%	"The national channelgrew revenue in the high-20% range in the first quarter"			
2Q17	20%	"National revenue was up 20% year-to-year"			
3Q17	19%	"National revenue grew in the low 20% range with account growth in the high 20%s"			

Source: Company Deports, Hedgeve Estimates

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ESPECIALLY SINCE THEY'RE LIKELY THE SAME CLIENT

It's odd that since 1Q16, National has remained at roughly 20% of advertising revenue any time mgmt discloses the metric, and that its growth tends to approximate the total Local segment. We suspect the reason why is because the National opportunity is largely SMBs with 2-3 locations rather than those with a national or even regional presence.

THERE ARE ONLY SO MANY FREE ADS YOU CAN GIVE AWAY



link

YELP | Estimated Monthly Average Revenue per Account (ex National Revenue) LAAs & PAA \$450 Paying Advertising Account Local Advertising Account Local Advertising Account



Note: we're assuming National is a constant ~20% of total Advertising revenue through the above time series

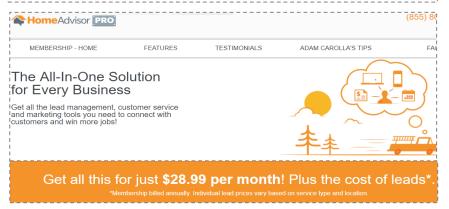
AT SOME POINT THIS BECOMES A CAPPED GROWTH DRIVER

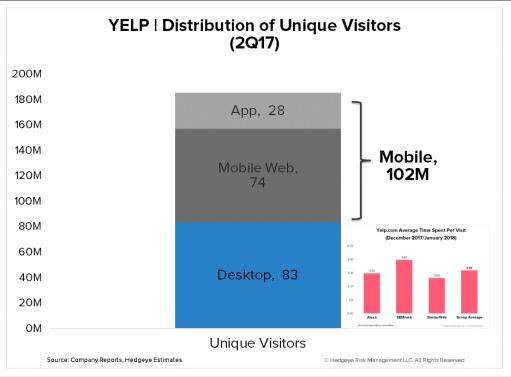
Self-serve inherently has less to do with distribution, so YELP's spurts in self-serve account growth are likely driven by promotions like the one above (although this one originated from a sales rep). How much more will they have to give away to drive self-serve growth into 2018...2019, 2020 etc. Further, offering free ads further constrains what is likely a dearth of available ad inventory.

REQUEST-A-QUOTE (RAQ)...REALLY?

"I think I would just add to what Jeremy said on that question...Request a Quote through that pricing dynamic you just described. We also talked about there being \$3 billion kind of project value just within home and local services, which if you think about those numbers in kind of a take rate context, we feel like the long-term monetization opportunity of the business that we're delivering – the project value that we're delivering to local businesses is really significant"

- Lanny Baker, 3Q17 Earnings Call





RAQ WILL NEVER BE ANYTHING MORE THAN AD INVENTORY

Are we really going to talk about a take-rate on a cash business where YELP would have no recourse to collect? Note that both HomeAdvisor and ANGI also only charge for leads. RAQ is an ad unit within the construct of what is likely a dearth of ad inventory. For context, YELP's monthly ad package is inline with HomeAdvisor's annual subscription fee.

FOR MORE INFORMATION CONTACT:

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