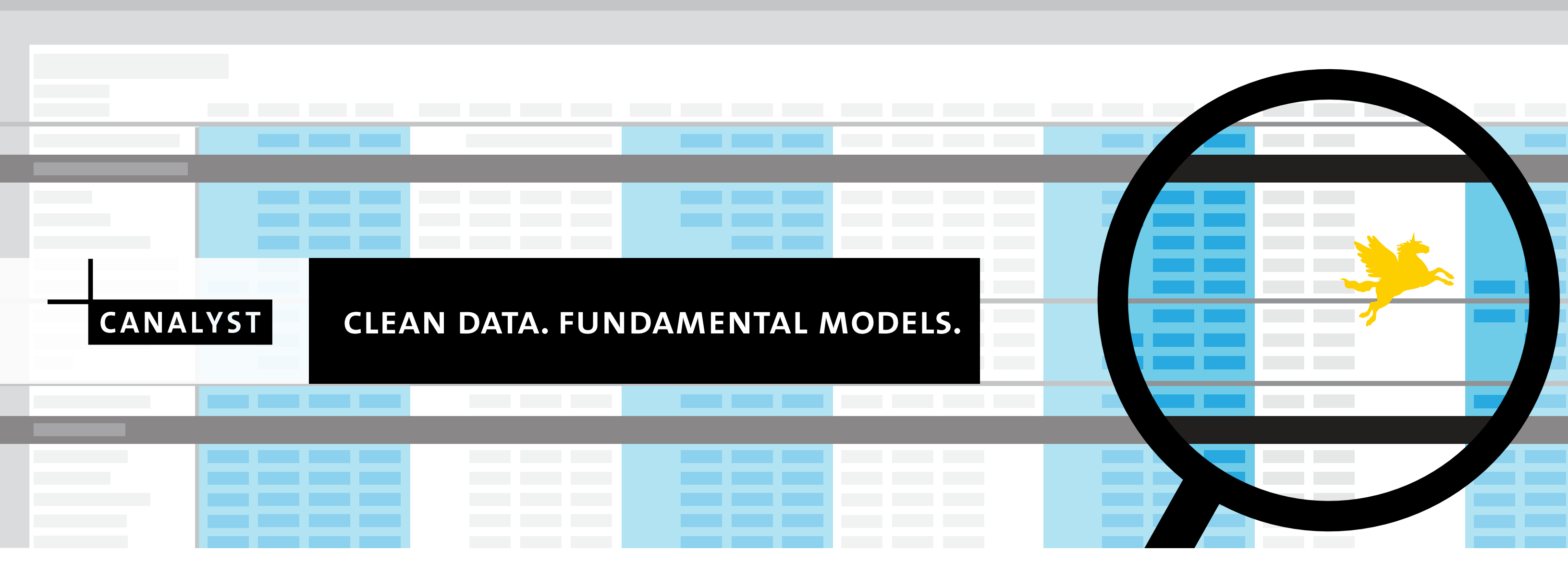


GETTING GRANULAR ON SAAS: HOW A UNICORN CAN GET ITS WINGS

Happy New Year! In our first edition of 2020, we take a close look at BOX, Inc.'s business decisions, including the introduction of y/y cost granularity as a key metric in ~240 of our information technology and communication services models. We also show you an exciting new format option in our models, recap our Holiday Quiz riddled with brain teasers, and extend an invitation to our booth at BattleFin Miami this month.

THE COST GRANULARITY OF SAAS: A Detailed Look at BOX, Inc. & What They Need to Succeed

The hunt for the next unicorn...

The post-Salesforce era has prompted many technology companies to either be built on, or transition towards, a subscription-based business model. A business model for cloud-centric, Software as a Service (SaaS) companies that can demonstrate sustainability and scalability is extremely attractive. Because of this, we have seen wildly high revenue multiples on SaaS companies, but revenue growth can come at a cost. Critically analyzing the productivity of incremental spending and the potential operating leverage is key to understanding the underlying strengths of an individual SaaS model. Cost granularity can give meaningful visibility into what is truly under management's discretion, provide more accurate data to assess the effectiveness of operational spend, and greatly improve an analyst's ability to forecast operating leverage. At Canalyst, we have added y/y cost granularity as a key metric to ~240 of our models in the information technology and communication services sectors, and we will continue to build on this data for more of our models.

The recipe...

Once product viability has been proven, revenue growth can accelerate quickly with a subscription-based offering. Providing a product that is core to the end user's workflow or lifestyle tends to lead to high retention for a SaaS company - meaning each incremental customer represents a long-term recurring revenue opportunity. Gross margins are generally high, comprised mainly of technology infrastructure and fulfilment costs, as well as services personnel (maintenance, integrations, etc.). As the customer base matures and the company approaches "scale", it should benefit from a greater negotiation stance with cloud enabling providers and services personnel costs should moderate, improving gross profit. Marginal research & development (R&D) costs also tend to be less onerous than traditional licensed software companies, as R&D dollars are deployed towards innovation and enabling incremental features rather than maintaining legacy product license models. As the model matures and the potential market opportunity gets largely saturated, the incremental sales & marketing (S&M) spend per new revenue dollar generated should be greatly reduced. The makings of a SaaS unicorn include hitting a targeted level of recurring revenue, improving the cost of goods sold, paring back S&M expenses, and generating a steady annuity-like stream of cash.

Once public, SaaS companies are often largely valued on revenue growth. Analysts will leverage a wealth of metrics to scrutinize S&M expenses and react negatively to those that generate less incremental revenue than incremental spend. Provided revenue growth meets expectations, negative-adjusted EBITDA and operating margins are largely overlooked during this analysis as the pursuit of growth takes priority.

As S&M spend inevitably runs out of steam, and as revenue growth moderates, the long-term viability of the business model can be valued more critically. At that stage, the overall earnings potential of the business model becomes contingent on operating leverage. For most SaaS companies, the S&M expense is the largest potential source of margin improvement. Many SaaS companies provide long-term operating margin guidance, but a company's ability to achieve those targets can be difficult to model without having transparency into which costs are variable and which are fixed.

Example...

BOX, Inc. (NYSE: BOX US), a cloud content management platform provider, has had a muted stock price performance over the last (almost) five years, and has materially underperformed in its peer group (i.e. BVP). The company went public on January 23, 2015 at an IPO price of $14.00 and ended its first day of trading over $23.00 a share. As of January 2, 2020, the stock closed at just $17.24. The lackluster performance of the shares stems from the company's inability to hit its targeted "scale" and subsequently crystallize on its ATM-like business model potential (i.e. scale the business, drive operating leverage). In the past, management has regularly referenced $1 billion as its targeted long-term revenue and the inflection point at which it could fully capitalize on operating metrics. According to a March 2017 investor deck, management expected to hit $1 billion annual revenue run rate by FY2021 (January 2021). That guidance was subsequently pushed out to FY2022, and more recently, removed altogether.

The company's incremental S&M expenses and margin analysis, as seen below in Canalyst's most recent BOX model, suggests that the sales team efficiency had materially improved. Its customer acquisition cost ratio – "new annualized recurring revenue *gross profit (adjusted for stock-based compensation)/average quarterly S&M expense)" – was 1.26 in FY2017 versus 1.16 in FY2016. It looked as though management's thesis was playing out and that S&M expenses were benefitting from the lower costs that were associated with renewals and expansions versus new customer acquisition costs. Flat commission costs supported that argument, however the largest contributor to the improved ratios was a $10.7 million reduction related to data center and customer support costs to support free users as well as a $0.8 million reduction in marketing costs. In fact, incremental spending related to additional employee related costs were up $10.4 million versus a $9 million increase in the prior year. Sales productivity appears to be increasing, but not at the pace the non-GAAP S&M margin (adjusted for stock-based compensation) reflects (FY2018 over FY2017 increased 138 bps vs. 165 bps as reported).

Box, Inc. — Canalyst model

Ticker : BOX US														
Last Price (USD)	$ 17.12	365	90	92	92	92	366	89	92	92	92	365	89	92
Real-Time Stock Price : Bloomberg	OFF	Jan-16	Apr-16	Jul-16	Oct-16	Jan-17	Jan-17	Apr-17	Jul-17	Oct-17	Jan-18	Jan-18	Apr-18	Jul-18
Model Sheet Currency : USD		FY2016	Q1-2017	Q2-2017	Q3-2017	Q4-2017	FY2017	Q1-2018	Q2-2018	Q3-2018	Q4-2018	FY2018	Q1-2019	Q2-2019
New annual recurring revenue (ARR), mm		86.3	24.5	22.3	24.2	24.9	95.9	27.1	27.2	26.5	26.7	107.5	23.3	25.3
New annualized ARR, mm		86.3	98.1	89.1	96.6	99.8	95.9	108.3	108.9	106.0	107.0	107.5	93.1	101.1
Gross profit (adjusted for SBC), $		74.6%	72.4%	74.0%	76.1%	75.8%	74.6%	74.5%	75.5%	75.5%	76.2%	75.5%	74.4%	73.7%
S&M (adjusted for SBC), mm		55.7	54.2	53.8	60.1	58.8	56.7	62.9	65.3	73.5	69.9	67.9	68.9	67.0
Customer acquisition cost (CAC) ratio, x		1.16	1.31	1.23	1.22	1.29	1.26	1.28	1.26	1.09	1.17	1.20	1.01	1.11

In FY2018, management compensated for softening growth metrics with a resurgence in S&M spend. The total incremental spend was $50.3 million, driven largely by a $26.9 million increase in employee related costs. Commissions were up $7.3 million. There was also a $9.9 million step up related to facilities and employee benefits costs. These increases were marginally offset by a $7 million decrease in data center costs again related to the free users. The year over year S&M margin improved, but by a far more modest 62 bps (or 49 bps excluding the $7 million reduction).

Referring to the Canalyst model below, we see that FY2019 is also an interesting year. Commission costs fell $19.6 million, resulting in a material 840 bps improvement of the S&M margin, but the change was largely related to ASC606 and the change in accounting for deferred commissions. While the company has demonstrated operating leverage in its S&M margin, the cost to acquire new customers is not improving in a linear manner.

Box, Inc. — Canalyst model

Ticker : BOX US																	
Last Price (USD)	$ 17.12	365	365	90	92	92	92	366	365	89	92	92	92	365	89	92	92
Real-Time Stock Price : Bloomberg	OFF	Jan-15	Jan-16	Apr-16	Jul-16	Oct-16	Jan-17	Jan-17	Jan-18	Apr-18	Jul-18	Oct-18	Jan-19	Jan-19	Apr-19	Jul-19	Oct-19
Model Sheet Currency : USD		FY2015	FY2016	Q1-2017	Q2-2017	Q3-2017	Q4-2017	FY2017	FY2018	Q1-2019	Q2-2019	Q3-2019	Q4-2019	FY2019	Q1-2020	Q2-2020	Q3-2020
Total change in R&D , mm		20.4	36.1	3.8	1.8	3.3	4.5	13.4	20.9	4.7	7.8	7.5	7.0	27.0	8.0	7.9	8.3
S&M - change in commission costs, mm			8.2						7.3	(4.2)	(4.2)	(4.0)	(7.2)	(19.6)	1.3	1.5	
S&M - change in employee related costs, mm		10.0	9.0	2.8	1.9	3.0	2.7	10.4	26.9	6.9	4.8	4.0	2.3	18.0	1.3	1.1	
S&M - change in SBC costs, mm		6.6	7.9	1.3	1.7	1.7	1.9	6.6	5.6	0.3	2.0	1.5	1.3	5.1	1.3		
S&M - change in marketing costs, mm		3.5		(0.6)	(0.2)			(0.8)	3.6								(1.3)
S&M - change in allocated facilities and IT costs, mm		2.7	6.4	1.4	1.3	1.0	0.1	3.8	2.7	3.0	2.4	2.2	1.5	9.1	(1.9)		
S&M - change in data center and customer support costs, mm		9.1	1.4	(1.8)	(2.8)	(3.3)	(2.8)	(10.7)	(7.0)	(1.3)	(0.9)			(2.9)			
S&M - change in facilities and employee benefits costs, mm									9.9								
S&M - change in outside agency/contractor costs, mm						0.5											
S&M - change in travel-related costs, mm		1.9	2.4														
S&M - change in other costs, mm		2.8	(0.9)	(0.1)	(0.2)	(0.1)	1.4	1.5	1.3	1.6	(0.4)	(0.9)	(1.9)	(0.8)	(0.2)	0.8	(0.3)
Total change in S&M , mm		36.6	34.4	3.0	1.7	2.8	3.3	10.8	50.3	6.3	3.7	2.8	(4.0)	8.9	1.8	3.4	(1.6)

The company's targeted long-term run rate for non-GAAP S&M spend is ~39% and it has made material progress. As of FY2019, its non-GAAP S&M expense improved 840 bps to 45.3%, but at the same time, annual growth continues to trend downward. Achieving the $1 billion of revenue could take time. In the Q12020 conference call, management lowered FY2020 revenue guidance to $688-$692 million, down from its previous guidance of between $700-$704 million (while also removing its target date of 2022 to achieve $1 billion in annual revenue). Management blamed a familiar culprit - a longer sales cycle resulting from larger enterprise deals and more products.

Perhaps it makes sense to assume that the company's targeted long-term revenue will be materially lower than the original $1 billion mark and to assess potential profitability based on the company paring back costs in the nearer term. Alternatively, the company may deploy increased capital in S&M or R&D (to capture additional revenue from existing customers) and attempt to re-energize revenue growth. Either way, having a greater sense of which levers the company will pull, and which costs can be controlled, will provide significantly more visibility into the long-term potential for the company.

By Christy Strashek, Director of Research, Canalyst.

Christy has over a decade of experience in capital markets on both the sellside and buyside, most recently as an analyst at a US focused long/short hedge fund.

NOW YOU CAN VIEW OUR MODELS IN MULTIPLE FORMATS: Same Accurate Data, New Customizations

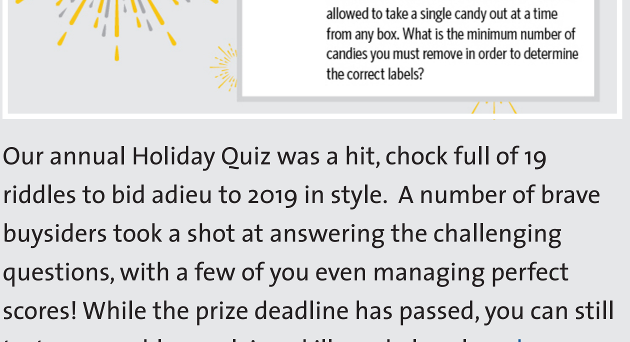
Our focus for 2020 is no different than before: we strive to provide you with the utmost data accuracy, depth, and structure. To achieve this, we keep the channels of communication open so you can ask us questions and provide direct product feedback, whether it be suggestions for new and improved data delivery or requests for custom workbooks. It's this kind of feedback that helps us expand our product roadmap and ensure you're getting the most out of your Canalyst subscription. In 2019, we heard feedback from many of you saying you prefer to look at models in a different layout.

With our most recent product update, you can now view Canalyst models in two formats:

1. Chronological Variant (QQQQY QQQQY): This default variant has every set of four quarters followed by a fiscal year column.
2. Annual-Grouped Variant (QQQQ QQQQ YY): A new, alternative variant has all of the quarters in the model grouped, followed by all of the fiscal years.

We're constantly integrating your feedback to improve the usability of our product and platform, so you can customize how you integrate Canalyst data into your daily workflow. If you have any questions or ideas for product enhancements, you can always contact us at support@canalyst.com.

OUR 2019 HOLIDAY QUIZ WAS NO JOKE, JUST RIDDLES!



Our annual Holiday Quiz was a hit, chock full of 19 riddles to bid adieu to 2019 in style. A number of brave buysiders took a shot at answering the challenging questions, with a few of you even managing perfect scores! While the prize deadline has passed, you can still test your problem-solving skills and play along here.

HEADING TO MIAMI FOR THE TOP ALT DATA CONFERENCE?

BattleFin DISCOVERY DAY MIAMI

We're looking forward to BattleFin's Discovery Day in Miami, which spans two days – January 27th and 28th. The conference brings together the top alternative data providers and asset managers for 1:1 informative meetings. If you plan to attend the event, be sure to stop by our booth or schedule a meeting with us in advance.

WE'RE HIRING

As Canalyst continues to grow, our engineering and equity research teams are looking to expand. If you know anyone who has a knack for stocks or technology – or both, we'd love to hear from them! Please visit the Canalyst careers page to learn about current job openings.

James Rife
Canalyst, Head of Equities

Prior to founding Canalyst, James had 10 years' experience in equity research and portfolio management. He started his career in equity research with Fidelity Canada's investment team, covering sectors including Utilities, Forestry, Technology, and Energy from 2006 to 2010. After Fidelity, he took a role as Portfolio Manager at a Boston-based $1B long/short fund, rounding out his experience across most other sectors in the process.

James holds a Bachelor of Commerce from the University of British Columbia and is a recipient of a Leslie Wong Fellowship from UBC's Portfolio Management Foundation, and is a CFA Charterholder.