INSIGHTS ON VC PRICING: LESSONS FROM UBER, WEWORK AND PELOTON

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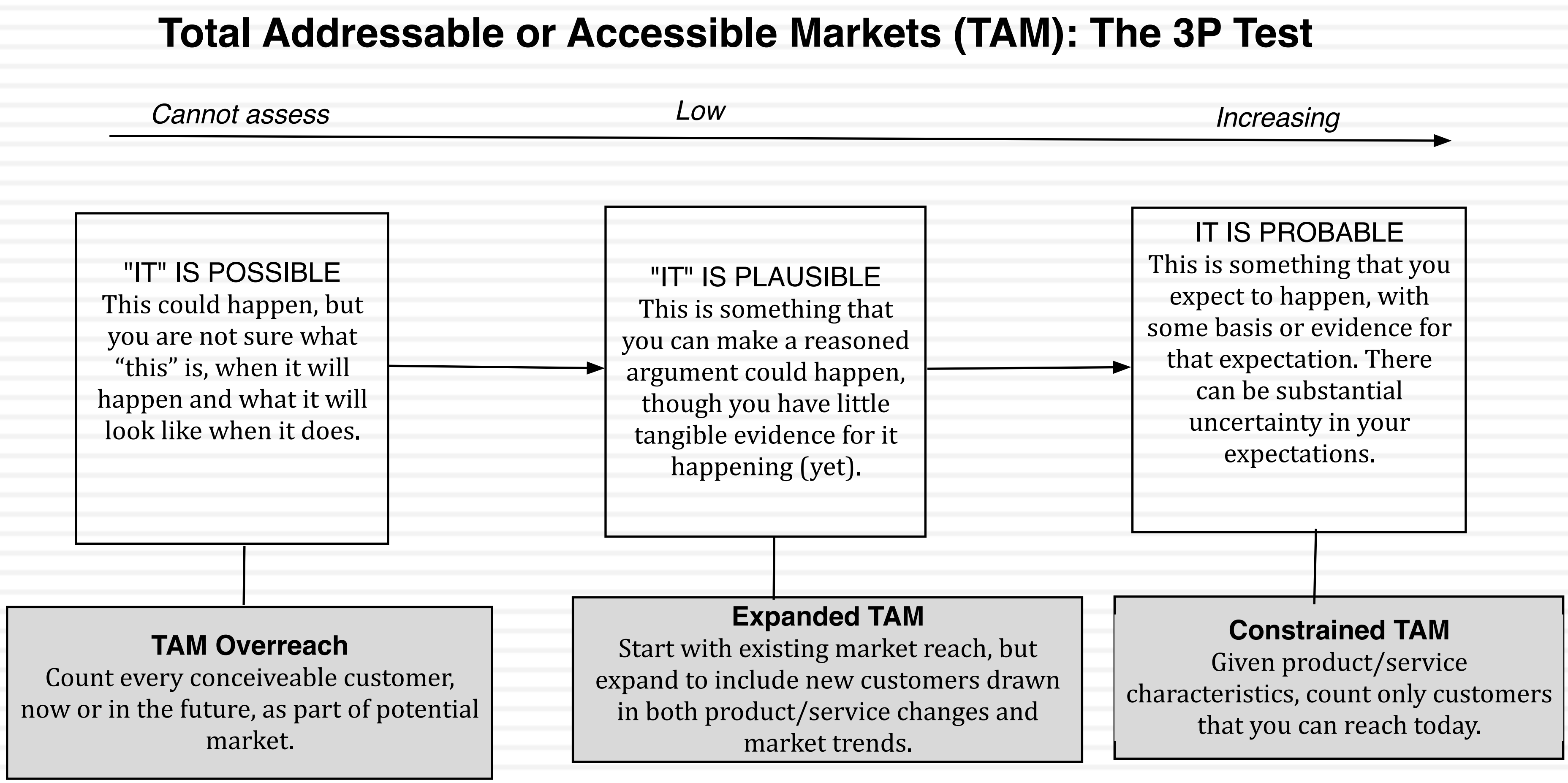
Started a Peloton Valuation, but distraction struck…

- Déjà vu? The Peloton prospectus, with the descriptions of its business, its measure of total market size and its success at scaling up revenues accompanied by large losses, I was reminded of prospectuses from Lyft, Uber, Slack, Pinterest and, most recently, WeWorks, not only shared many of the same characteristics but also used much of the same language.
- Learned Behavior: It is possible that they all used a Prospectus App, which wrote the prospectus for them, with all the necessary pieces and buzzwords, but more likely, these companies are emphasizing those features that allowed them to get to where they are today.
- Insight into what VC prize and price most: Examining the features they emphasize should give us insight into how venture capitalists price companies, and the dangers of basing what you pay on the most recent VC pricing.

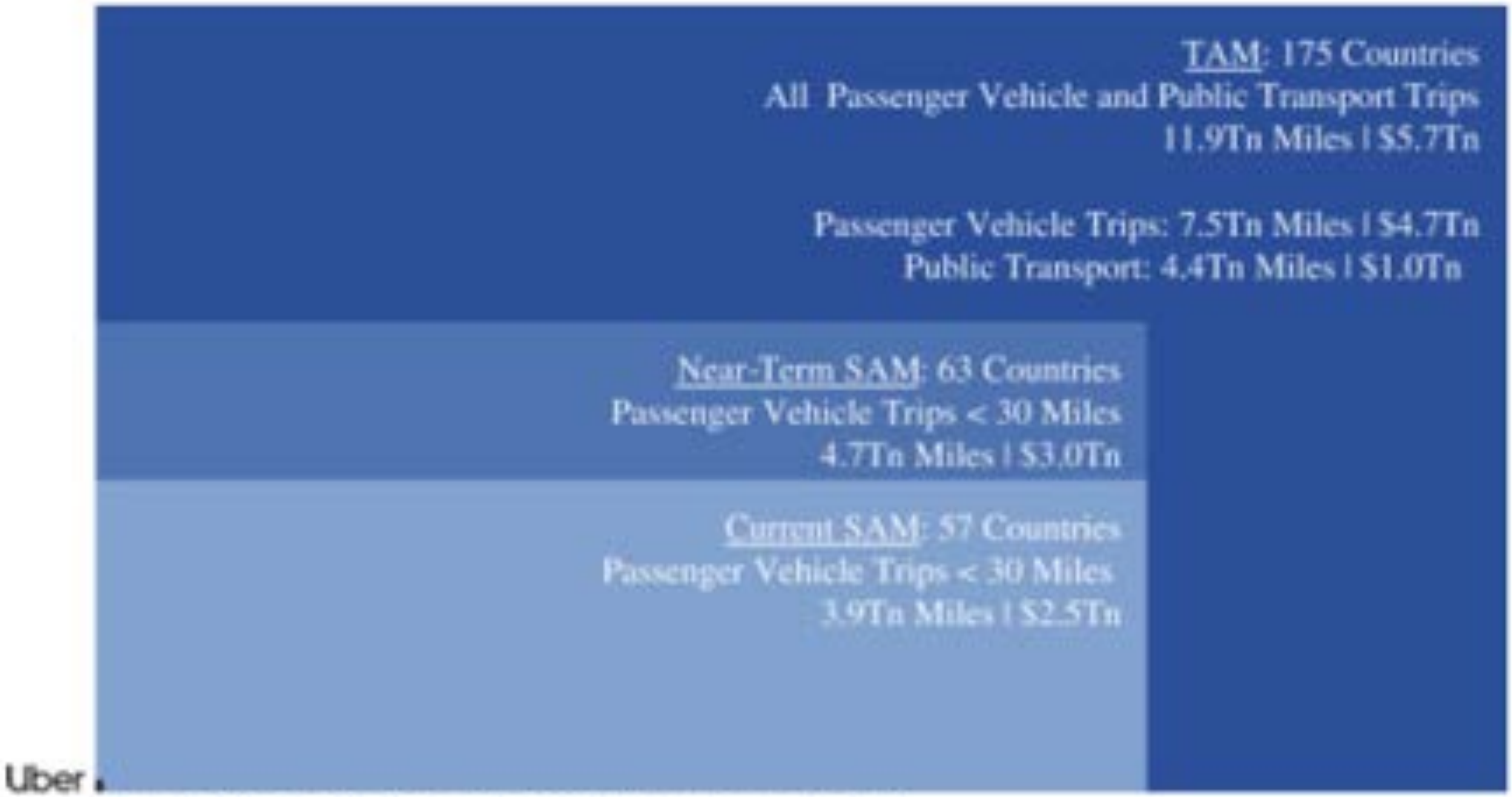
1a. Grandiosity in Business Description

- It is natural that companies, especially early in their lives, puff up their business descriptions and inflate their potential markets, but the companies that have gone public this year seem to have taken it to an art form.
  - Lyft, which went public before Uber, described themselves as a transportation company, a little over-the-top for a car service company, but Uber topped this easily, with their identification as a *personal mobility company*.
  - WeWork, in its prospectus, steers clear of ever describing itself business as real estate, framing itself instead as a *community company*, whatever that means.
  - Peloton, in perhaps the widest stretch of all, calls itself a *technology, media, software, product, experience, fitness, design, retail, apparel and logistics* company, and names itself Peloton Interactive for emphasis.
- All of them also claim to be tech companies.

Ib. Total Addressable (Accessible) Markets (TAM)

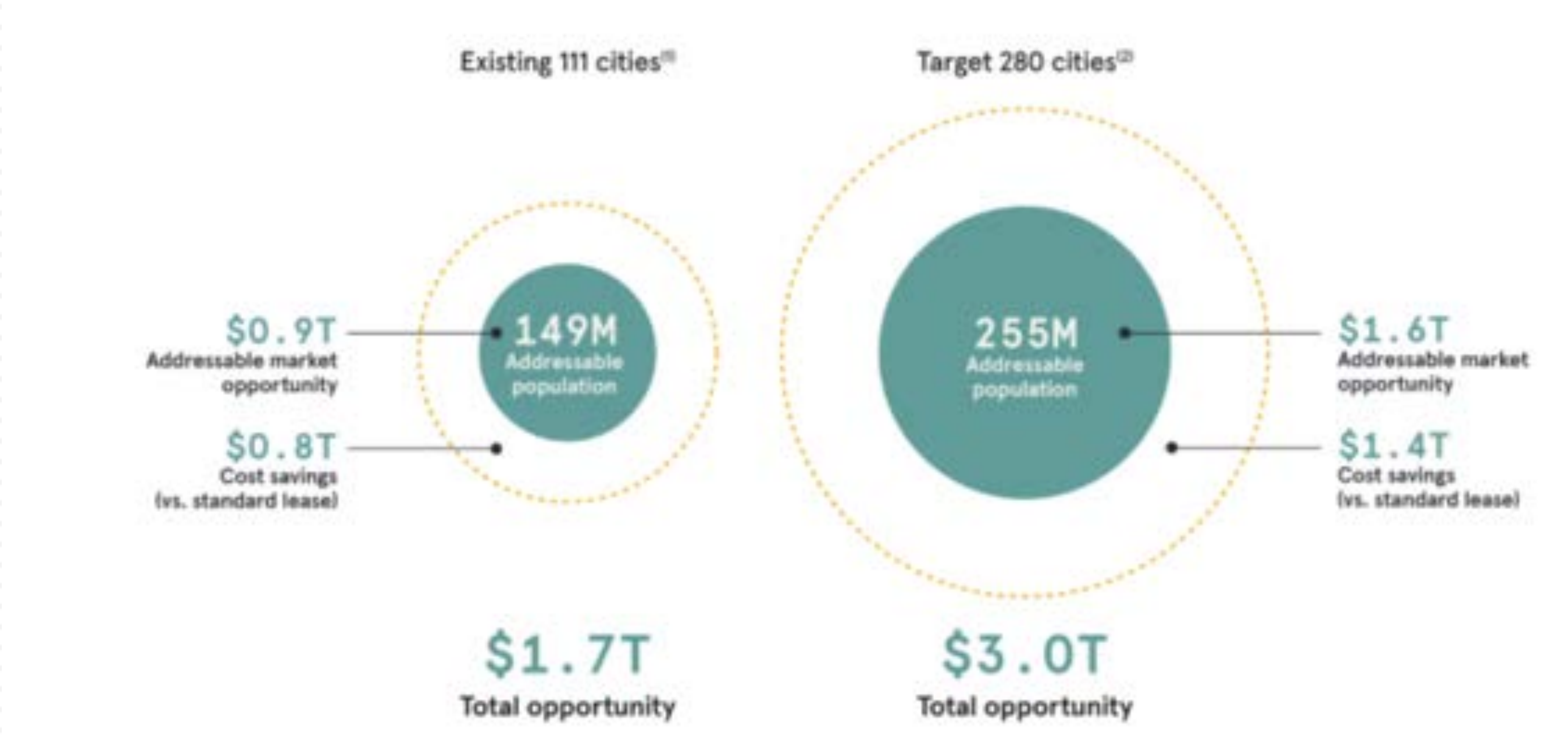


Uber’s TAM

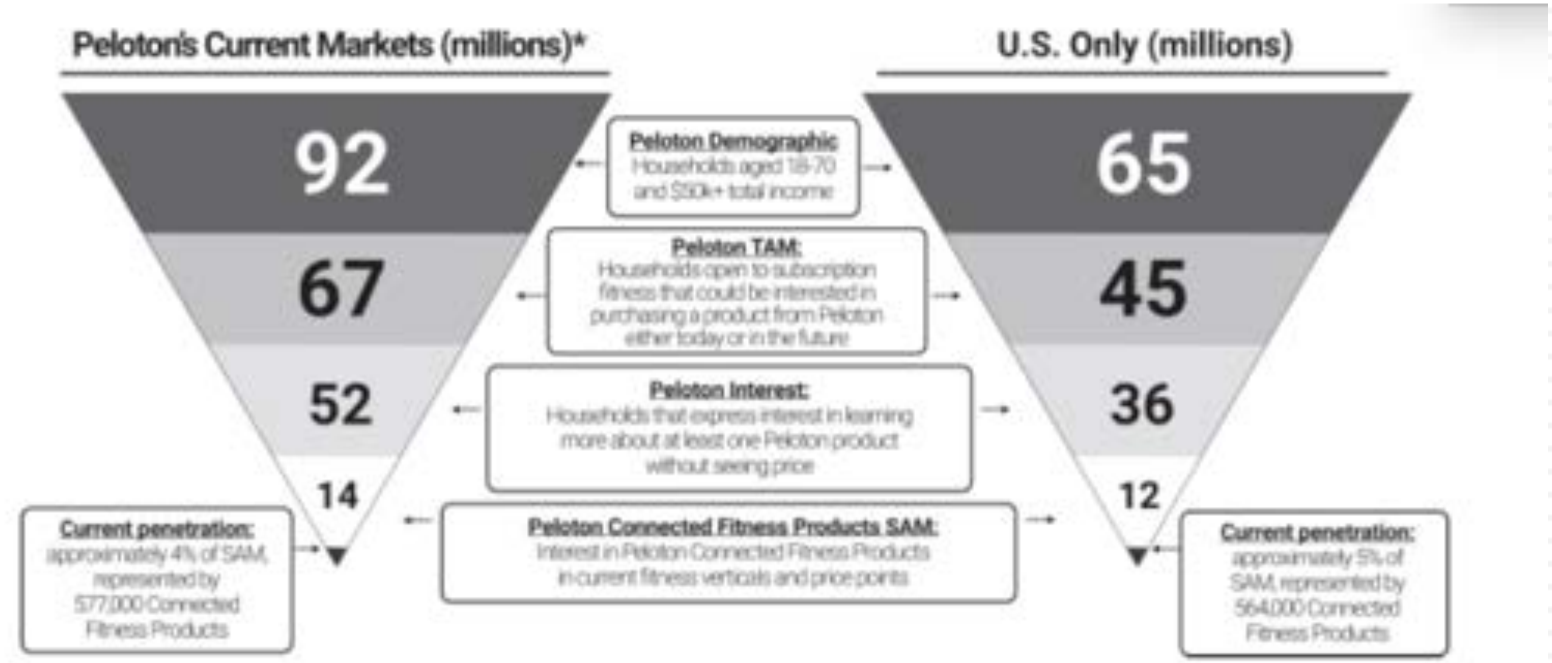


Personal Mobility Near-Term SAM Miles Penetration: less than 1%

WeWork's TAM


Existing 111 cities(1)
Target 280 cities(2)
$0.9T
Addressable market opportunity
$0.8T
Cost savings (vs. standard lease)
149M
Addressable population
255M
Addressable population
$1.6T
Addressable market opportunity
$1.4T
Cost savings (vs. standard lease)
$1.7T
Total opportunity
$3.0T
Total opportunity

Peloton’s TAM



2. Scaling Success ($ and Units)

	Uber	*WeWork*	*Peloton*
Revenues- LTM ($ millions)	$ 11,270	$ 2,593	$ 915
Revenues last year ($ millions)	$ 7,932	$ 1,822	$ 435
Time between periods (years)	1	0.5	1
Annualized Growth Rate in last year	42.08%	102.54%	110.34%

	Uber	*WeWork*	*Peloton*
Number of riders	91000000	527000	511202
Riders last yar	68000000	401000	245667
Time between periods (years)	1	0.5	1
Annualized Growth Rate in last year	33.82%	72.72%	108.09%

A Platform Argument (but for what?)

- A Platform? I understand the allure of user numbers, since the platform that they inhabit can be used to generate more revenues. That is implicitly the message that all these companies are sending
- User value: I did estimate a lifetime value of an Uber rider at close to $500 and I could use the model (described in this paper) to derive values for a WeWork member or a Peloton subscriber.
- The success stories: After all, the most successful user-based companies, such as Facebook and Amazon Prime, have shown how having a large user base can provide a foundation for new products and profits.
- And the failures: However, there are companies that focus just on adding users, using badly constructed business models and pricing products/services much too cheaply, hoping to raise prices once the users are acquired.

3. Blurry Business Models and Questionable Earnings Adjustments

- Most of the companies that have gone public this year have entered the public markets with large losses, even after you correct for what they spend to acquire new users or subscribers.
- For some investors, this, by itself, is sufficient to turn away from these companies
- Since these are young companies, pursuing ambitious growth targets, neither the negative earnings, nor the negative cash flows, is enough to scare me away.

3a. Pathways to Profitability?

- As money losing companies, I had hoped that Uber, WeWork and Peloton would all spend more time talking, in their investor pitches, talking about their existing business models, current weaknesses in these models and how they planned to reduce these vulnerabilities.
  - With Uber and Lyft, the question of how the companies planned to deal with the transition of drivers from independent contractors to employees should have been dealt with front and center (in their prospectuses), rather than be viewed as a surprise that no one saw coming.
  - With WeWork, their vulnerability, stemming from a duration mismatch, begged for a response, and plan, from the company in its prospectus, but none was provided.
  - Peloton may have done the best job, of the there companies, of positioning themselves on this front, with an (implicit) argument that as subscriptions rise, with higher contribution margins, profits would show up and increase.

3b. Adjusted EBITDA

- General practice: As has become standard practice across many publicly traded companies, these IPOs do the adjusted EBITDA dance, adding back stock-based compensation and a variety of other expenses.
- Stock based compensation: I have made my case against adding back stock-based compensation here and here, but I would state a more general proposition that adding back any expense that will persist as part of regular operations is bad practice.
- Community EBITDA: That is why WeWork's attempt to add back most of its operating expenses, arguing that they were community related, to get to community EBITDA did not pass the smell test.

4. Founder Worship

- Some time in the last two decades, newly public companies and many of their institutional investors seem to have lost faith in the quid quo pro that has characterized public companies over their history, where in return for providing capital, public market investors are at least given the semblance of a say in how the company is run, voting at annual meetings for board directors and substantive changes to the corporate charter.
- The most charitable characterization of the corporate governance arrangement at most newly minted public companies is that they are benevolent dictatorships, with a founder/CEO at the helm, controlling its destiny.

Manifestations of Corporate Dictatorship

- Shares with different voting classes: With the exception of Uber, every high profile IPO that has hit the market has had multiple classes of shares, with the low-voting right shares being the ones offered to the market in the public offering and the high voting right shares held by insiders and the founder/CEO.
- Captive boards of directors: I am sure that the directors on the boards of newly public companies are there to represent the interests of investors in the company and and that many are well qualified, but they seem to do the bidding of the founder/CEO.
- Complex ownership and corporate structures: When private companies go public, there is a transition period where shares of one class are being converted to another, some options have forced exercises and there are restricted share offerings that ripen, all of which make it difficult to estimate value per share. It does not help when the company going public takes this confusion and adds to it, as WeWork did, with additional layers of complex organizational structure.

Learned Behavior?

- The fact that almost every company that went public this year framed its total market as implausibly big, emphasized how quickly it has scaled itself up, both in terms of revenues and users/subscribers, glossed over the flaws and weaknesses in its business model, and had shares with different voting rights suggests to me that this is behavior that was learned, because venture capitalists encouraged and rewarded it.
- Bluntly put, the pricing offered by venture capitalists for companies must value scaling magnitude over sound business models, unrealistic (but huge) total addressable markets over plausible ones, with nary a thought given to corporate governance.

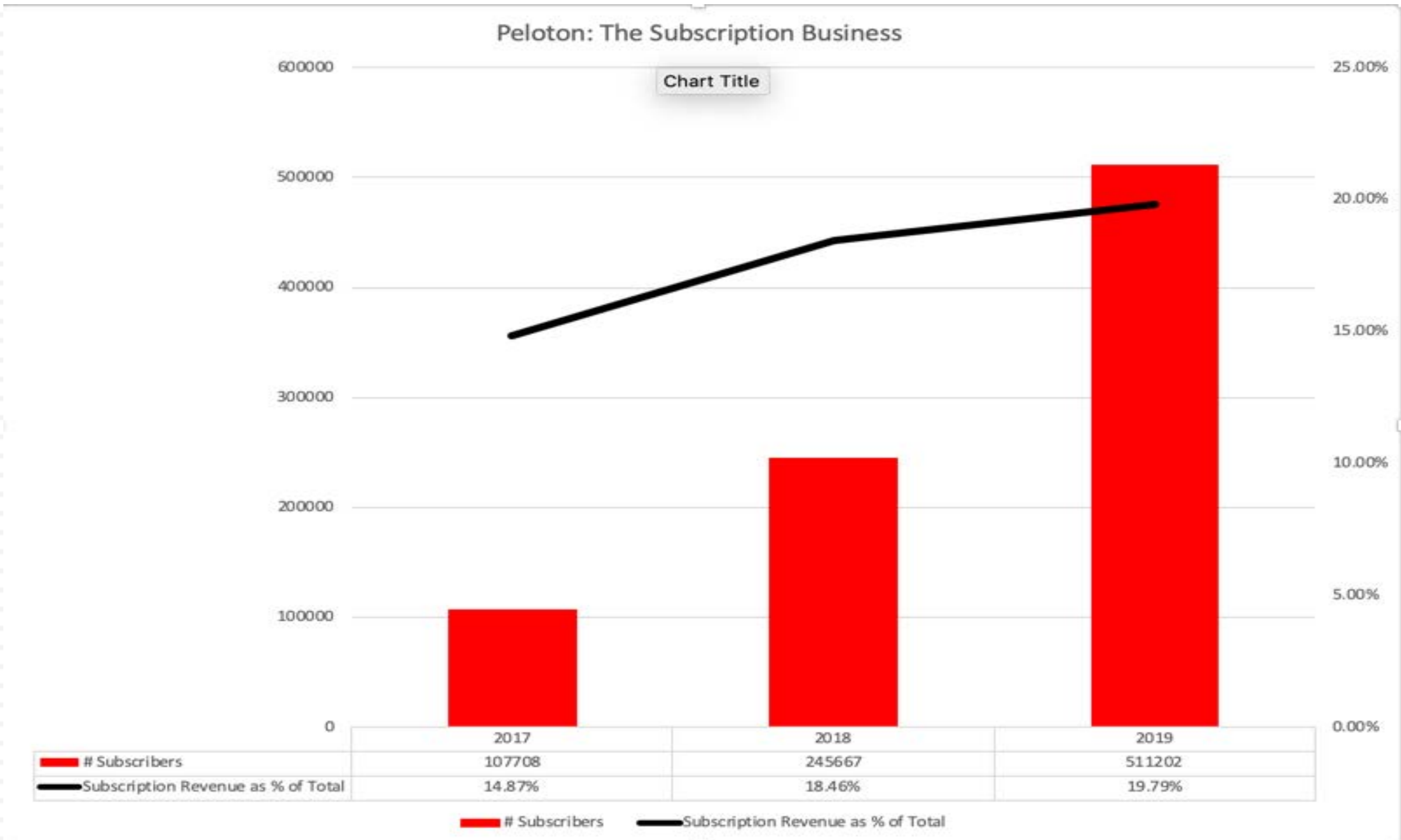
Pricing Pitch

- VC Pricing as Base: In almost every IPO this year, the basis for at least the initial estimate of what the company would get from the market was the pricing at the most recent VC round, about $66 billion for Uber, $47 billion for WeWorks on the Softbank investment and about $4.2 billion at Peloton.
- Follow the VCs? The strongest sales pitch that the company and its bankers seem to be making is that venture capitalists are smart people who know a great deal about the company, and that you should be willing to base your pricing on theirs.
- But should you? This is not very persuasive, because VCs price companies, they don't value them, and the pricing ladder, while it can lead price up, up and away, can also bring price down, when the momentum shifts.

The Peloton Business Model

- The Equipment: The Peloton product offerings started with an upscale exercise bike, but has since expanded to include an even more expensive treadmill; the bike currently sells for about $2,250 and the treadmill for more than $4,000.
- The Innovations:
  - Focusing on the upper end of the market with a very limited product
  - Monthly subscription to those who bought, where you can take online classes and access other fitness-related services, with a monthly subscription fee of $40/month.
  - Peloton Digital: In 2018, Peloton expanded its subscription service to non-Peloton fitness product owners, charging about $20 a month, with a membership count of 100,000 in 2018.

The Subscription Business Grows…



My Peloton Story

- A Cult? Peloton owners/subscribers rave about the online classes and how they keep them motivated to exercise, and while I take their praise with a grain of salt, it is quite clear that the company's online presence is not only polished but looks amazing on the high resolution TV screens that are built into their bikes and treadmills.
- My growth story: The total accessible market will grow as Peloton and other new entrants into the subscription model draw in new customers, and that Peloton's allure will last. In my base case valuation, I see Peloton's subscription model as their ticket for future growth, pushing revenues by year 10 for the company to just above $10 billion, a lofty goal, given that the largest US fitness companies (gyms and equipment makers) have revenues of $2-$3 billion.
- Subscription shift side effects: I also believe that the shift towards subscriptions will continue, allowing for higher margins and lower capital investment than at the typical fitness company.

Peloton

The Fitness Subscription Business

Peloton will continue to grow in the upscale portion of the fitness markert, with the portion of revenues attributable from subscriptions also increasing, pushing up operating margins over to just above industry average levels (9-10%) and reducing the need for reinvestment. The discretionary nature of its offerings (both products and subscriptions) will result in a higher cost of captial than the typical recreational/exercise firms and the firm will remain exposed to failure, as a small, money-losing companies.

The Assumptions

	Base year	*Years 1-5*	*Years 6-10*	*In year 10*	*After year 10*	*Link to story*
Revenues (a)	$ 915	40.00% →	1.90%	$ 10,625.07	1.90%	Subscription growth drives revenue growth
Operating margin (b)	-17.76%	-17.76% →	15.00%	$ 1,624.04	15.00%	
Tax rate	0.00%	0.00% →	25.00%		25.00%	NOLs delay taxes
Reinvestment (c)		Sales to capital ratio	2.00	RIR =	21.11%	Subscription model is less capital intensive.
Return on capital	-17.75%	Marginal ROIC =	36.17%		9.00%	Customer loyalty will sustain margins
Cost of capital (d)		9.00% →	7.16%		7.16%	Discretionary product = Higher risk

The Cash Flows

	Revenues	*Operating Margin*	*EBIT*	*EBIT (1-t)*	*Reinvestment*	*FCFF*
1	$ 1,281	-14.48%	$ (186)	$ (186)	$ 183	$ (369)
2	$ 1,793	-11.21%	$ (201)	$ (201)	$ 256	$ (457)
3	$ 2,511	-7.93%	$ (199)	$ (199)	$ 359	$ (558)
4	$ 3,515	-4.65%	$ (164)	$ (164)	$ 502	$ (666)
5	$ 4,921	-1.38%	$ (68)	$ (68)	$ 703	$ (771)
6	$ 6,515	1.90%	$ 124	$ 124	$ 797	$ (673)
7	$ 8,128	5.17%	$ 420	$ 420	$ 806	$ (386)
8	$ 9,521	8.45%	$ 804	$ 804	$ 697	$ 108
9	$ 10,427	11.72%	$ 1,222	$ 1,159	$ 453	$ 706
10	$ 10,625	15.00%	$ 1,594	$ 1,195	$ 99	$ 1,096
Terminal year	$ 10,827	15.00%	$ 1,624	$ 1,218	$ 257	$ 961

The Value

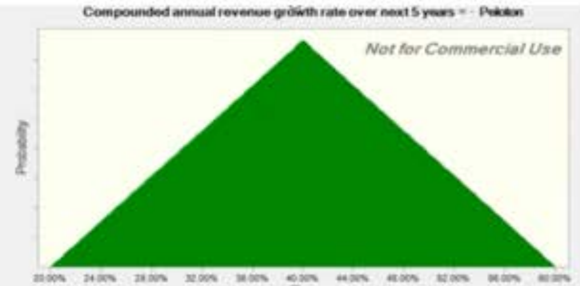
Terminal value	$ 18,283		
PV(Terminal value)	$ 8,128		
PV (CF over next 10 years)	$ (1,864)		
Value of operating assets =	$ 6,264		
Adjustment for distress	$ 376	Probability of failure =	15.00%
- Debt & Mnority Interests	$ 816		
+ Cash & Other Non-operating assets	$ 1,578	Inclues $1.2 billion in cash proceeds from IPO.	
Value of equity	**$ 6,650**		
- Value of equity options	$ 1,275	Valued using option pricing model and intrinsic value/per shaare	
Number of shares	277.76	Updated in new prospectus update, filed after offering price was set.	
Value per share	**$ 19.35**		

Lots of uncertainty?

- There is no denying that there is uncertainty in the future. While some argue that this is reason enough to either not invest in the company, or not do a discounted cash flow valuation, I disagree.
  - At the right price, you should be willing to expose yourself to uncertainty, and while I would not buy Peloton at $26/share, I certainly would be interested at a price lower than $19.35.
  - The notion that the value of a business is a function of its capacity to generate cash flows is not repealed, just because you have a young, high growth company. If your critique is that my assumptions could be very wrong, I completely agree, but I can still estimate value, facing up to that uncertainty.

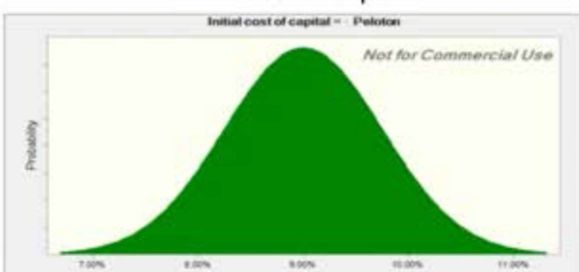
Peloton Simulation

Compounded Revenue Growth Rate

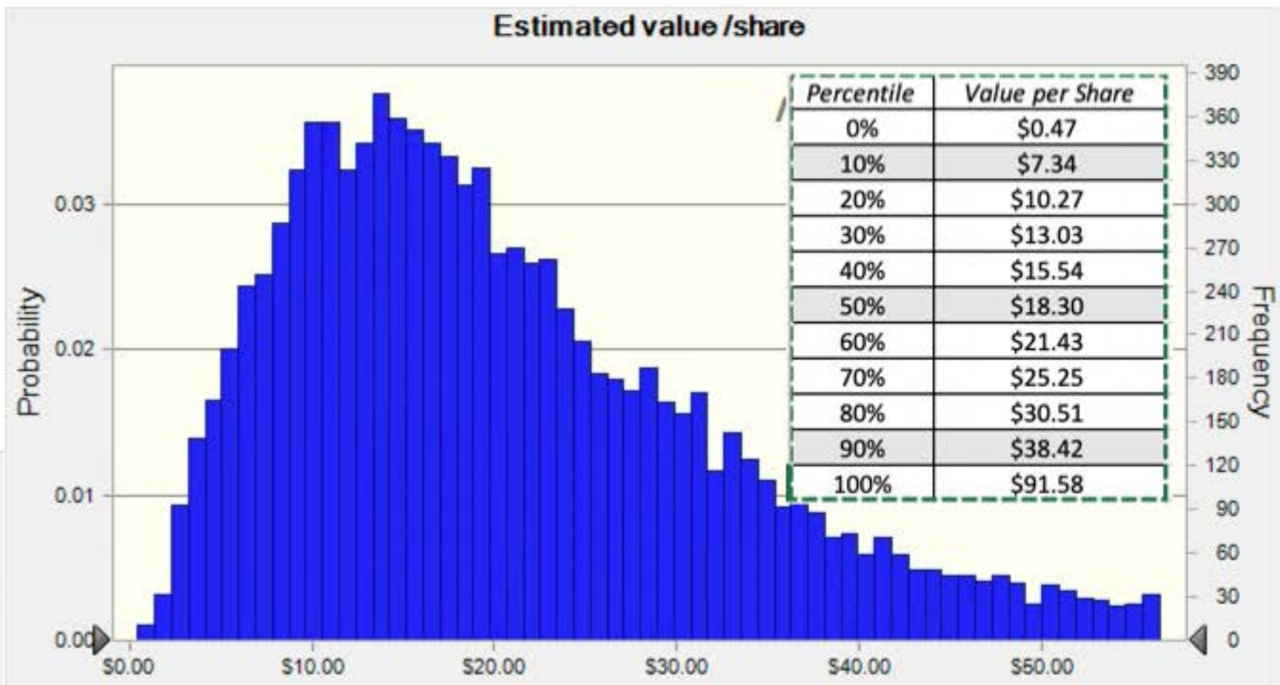


Target Operating Margin (Yr 10)

Initial Cost of Capital



Peloton IPO: Value Per Share (Simulation) - September 17, 2019



Percentile	Value per Share
0%	$0.47
10%	$7.34
20%	$10.27
30%	$13.03
40%	$15.54
50%	$18.30
60%	$21.43
70%	$25.25
80%	$30.51
90%	$38.42
100%	$91.58

A Requiem…

- The flood of companies going public, and their diverse businesses, has made for interesting valuations, but there are also more general lessons to be learned, even for those not interested in investing in these companies.
  - Our experiences with these IPOs makes clear it is the pricing game that dominates how numbers get attached to companies, and that is especially true for IPOs, not just on the offering day, but in the VC rounds leading up to the offering.
  - To the extent that the pricing game becomes centered on intermediate metrics, say revenue growth or on users or subscribers, it can lead companies astray, as they strive to deliver on those metrics, often at the expense of creating viable business models, and the pricing players (VCs and public investors) can get blindsided when the game changes.