



## ELON'S TWITTER PLAY: VALUATION QUESTION OR POLITICAL RORSCHACH TEST?

Politics and Markets

# The Lead In

- My first tweet in April 2009, making me ancient by Twitter standards. That said, I tweet less than ten times a month and follow only three people (three of my four children) on the platform.
- I am also fascinated by Elon Musk, and even more so by his most prominent creation, Tesla, and I have valued and written about him and the company multiple times.
- When Musk made news a little over two weeks ago, with his announcement that he owned a major stake in Twitter, I could not stay away from the story, and what's happened since has only made it more interesting, as it casts light on just Musk and Twitter, but on broader issues of the social and economic value of social media platforms, corporate governance, investing and how politics has become part of almost every discussion.

# The Twitter Story: Founding to IPO

- Twitter was founded in 2006 by Jack Dorsey, Noah Glass, Biz Stone and Evan Williams, and its platform was launched later that year.
- It succeeded spectacularly in attracting people to its platform, hitting a 100 million users in 2012, and then doubling those numbers again by 2013, when it went public ,with an initial public offering.
- Following on the heels of other social media platforms like Facebook and LinkedIn that had preceded it to public markets, it was cashing in on investor enthusiasm for companies with lots of users and potential monetization (from advertising, subscriptions, transactions etc.)

## Starting numbers

	2012	Trailing 2013
Revenues	\$316.9	\$448.2
Operating Income	-\$77.1	-\$92.9
Adj Op Inc		\$4.3
Invested Capital		\$549.1
Operating Margin		0.96%
Sales/Capital		0.82

## Twitter Pre-IPO Valuation: October 5, 2013

Revenue growth of 55% a year for 5 years, tapering down to 2.7% in year 10

Pre-tax operating margin increases to 25% over the next 10 years

Sales to capital ratio of 1.50 for incremental sales

**Stable Growth**  
 $g = 2.7\%$ ;  $\text{Beta} = 1.00$ ;  
 Cost of capital = 8%  
 $\text{ROC} = 12\%$ ;  
 $\text{Reinvestment Rate} = 2.7\%/12\% = 22.5\%$

Terminal Value<sub>10</sub> =  $1433 / (.08 - .027) = \$27.036$

	1	2	3	4	5	6	7	8	9	10
Revenues	\$ 694.7	\$ 1,076.8	\$ 1,669.1	\$ 2,587.1	\$ 4,010.0	\$ 5,796.0	\$ 7,771.3	\$ 9,606.8	\$10,871.1	\$11,164.6
Operating Income	\$ 23.3	\$ 62.0	\$ 136.3	\$ 273.5	\$ 520.3	\$ 891.5	\$ 1,382.2	\$ 1,939.7	\$ 2,456.3	\$ 2,791.2
Operating Income after taxes	\$ 23.3	\$ 62.0	\$ 136.3	\$ 265.3	\$ 364.2	\$ 614.2	\$ 937.1	\$ 1,293.8	\$ 1,611.4	\$ 1,800.3
Reinvestment	\$ 164.3	\$ 254.7	\$ 394.8	\$ 612.0	\$ 948.6	\$ 1,190.7	\$ 1,316.8	\$ 1,223.7	\$ 842.8	\$ 195.7
FCFF	\$ (141.0)	\$ (192.7)	\$ (258.5)	\$ (346.6)	\$ (584.4)	\$ (576.5)	\$ (379.7)	\$ 70.0	\$ 768.5	\$ 1,604.6

### Terminal year (11)

EBIT (1-t) \$1,849  
 - Reinvestment \$ 416  
 FCFF \$1,433

Operating assets \$9,611  
 + Cash 375  
 + IPO Proceeds 1000  
 - Debt 207  
 Value of equity 10,779  
 - Options 805  
 Value in stock 9,974  
 / # of shares 574.44  
 Value/share \$17.36

Cost of capital =  $11.32\% (.983) + 5.16\% (.017) = 11.22\%$

Cost of capital decreases to 8% from years 6-10

**Cost of Equity**  
11.32%

**Cost of Debt**  
 $(2.7\% + 5.3\%)(1 - .40) = 5.16\%$

**Weights**  
 $E = 98.31\%$   $D = 1.69\%$

**Riskfree Rate:**  
Riskfree rate = 2.7%

+

**Beta**  
1.40

X

**Risk Premium**  
6.15%

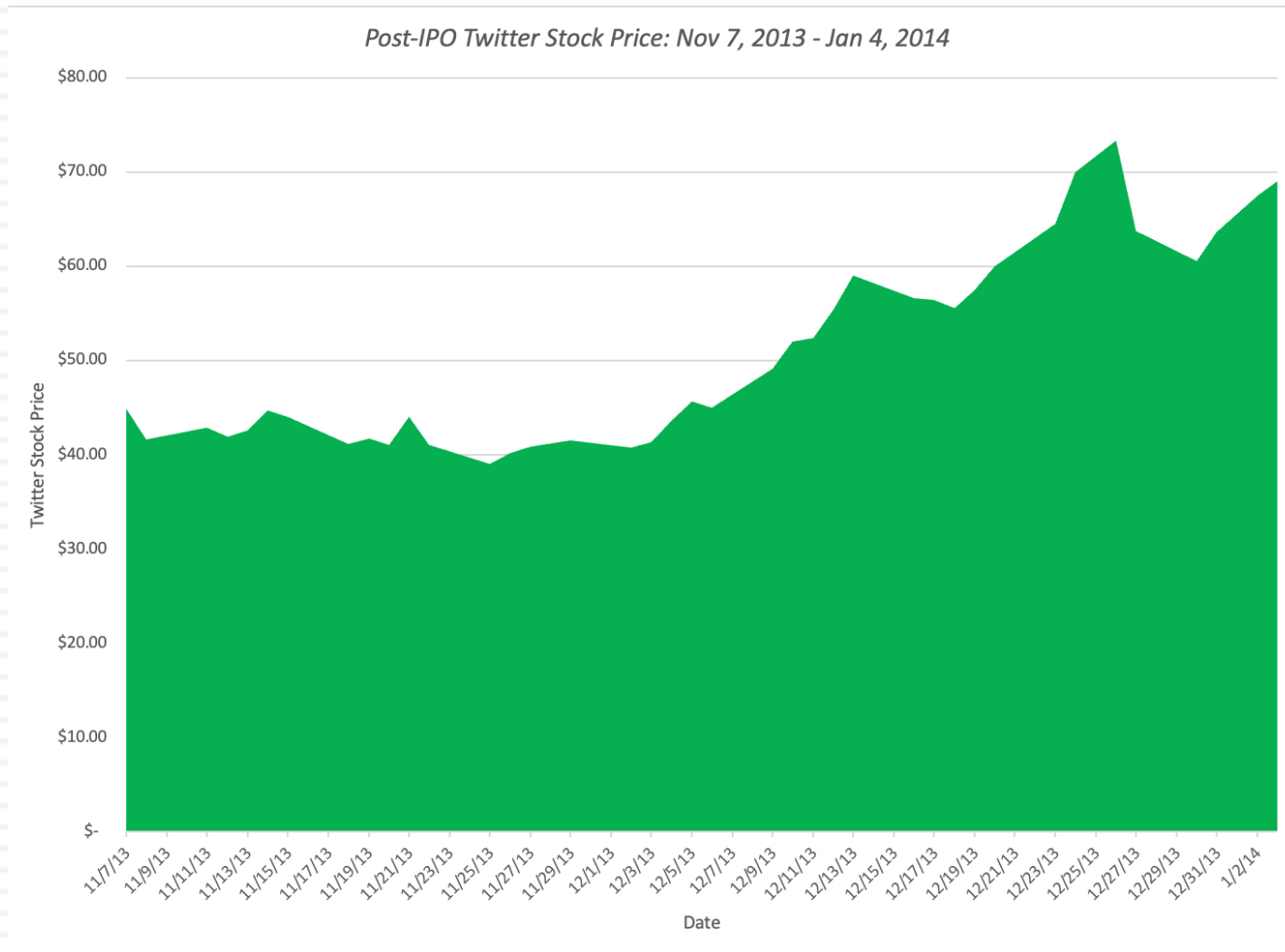
75% from US (5.75%) + 25% from rest of world (7.23%)

90% advertising (1.44) + 10% info svcs (1.05)

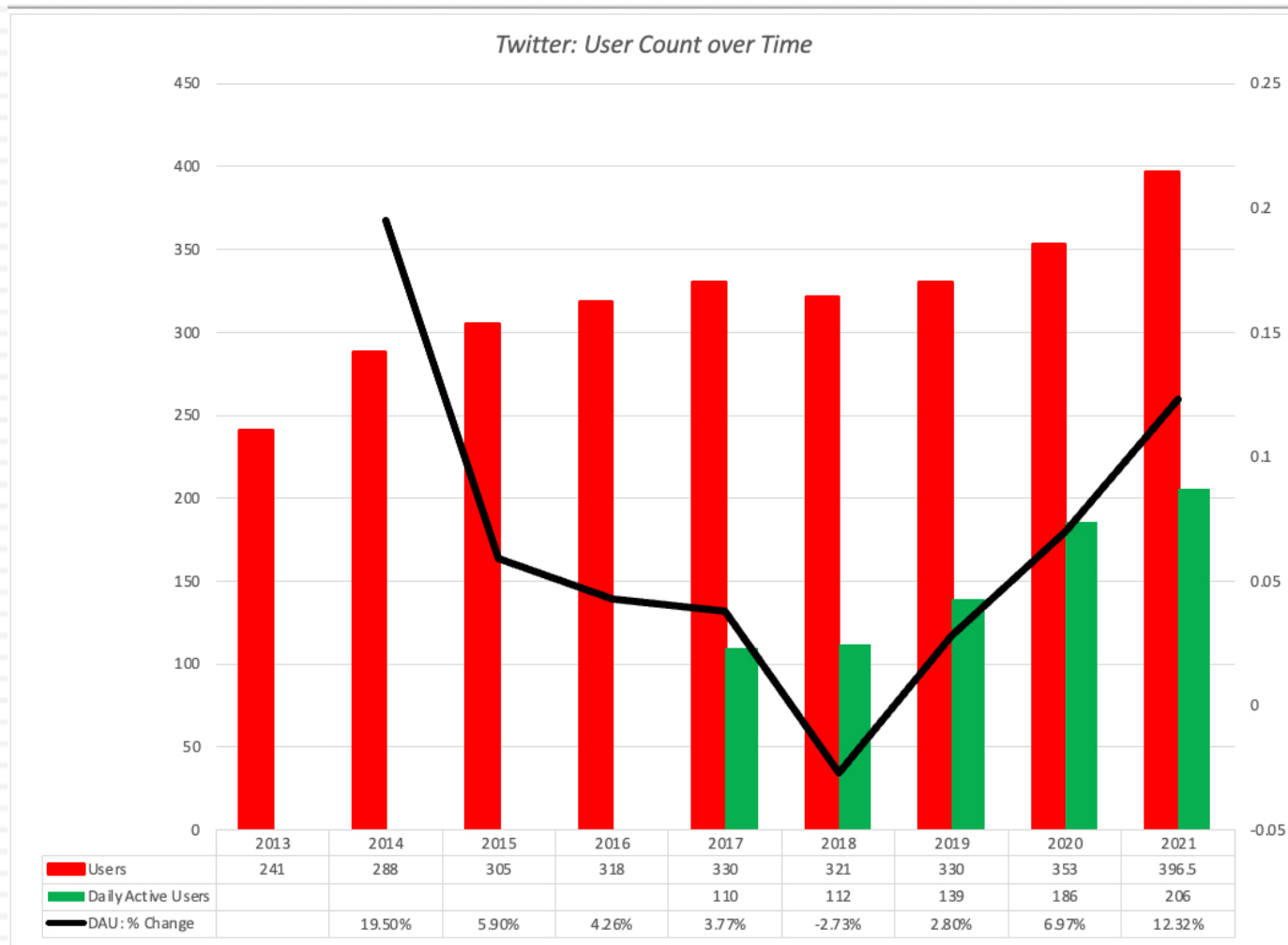
D/E = 1.71%

On October 5, 2013, Twitter had not been priced yet, but the company's most recent acquisition suggested a price of about \$20/share.

# The Glory Days: Post IPO Run Up



# The Post-IPO Narrative: User Numbers



# And Engagement...

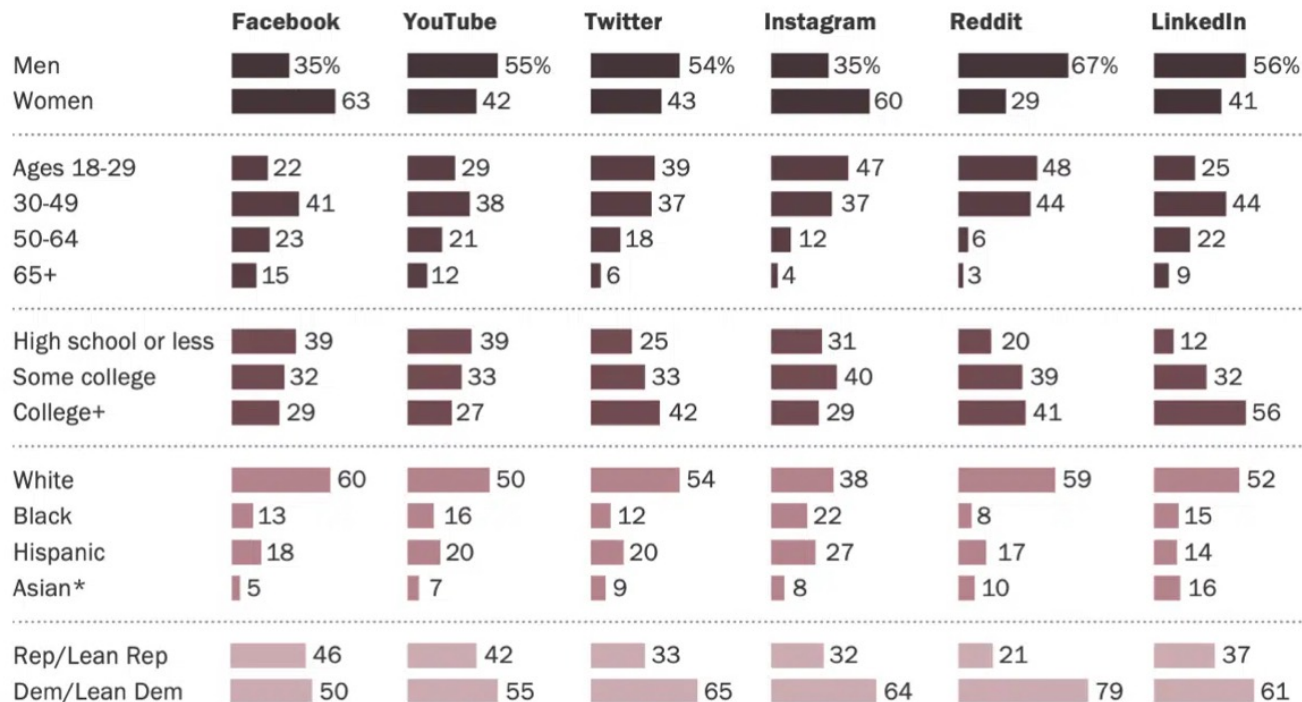
- Over the last decade, the company's platform, and the tweets that show up on it, became a ubiquitous part of news, culture and politics, as politicians used the platform to expand their reach and spread their ideas and celebrities built their personal brands around their followers.
  - Looking at the list of the Twitter persona with the most followers provides some measure of its reach, with a mix of politicians (Barack Obama, Narendra Modi), musicians (Justin Bieber, Katy Perry, Taylor Swift, Ariana Grande), celebrities (Kim Kardashian) and sporting figures (Cristiano Ronaldo).
  - Sprinkled in the list are brands/businesses (YouTube, CNN Breaking News), with millions of followers, though relatively few business people make the list, with Elon Musk being the exception.
- It is worth noting that many of the people on top follower list tweet rarely, and that behavior is mimicked by many of the users on the platform, many of whom never tweet. The bulk of the tweets on the platform are delivered by a subset of users, with the top 10% of users delivering 80% of the tweets.

# Twitter User Profile

## Demographic profiles and party of regular social media news users in the U.S.

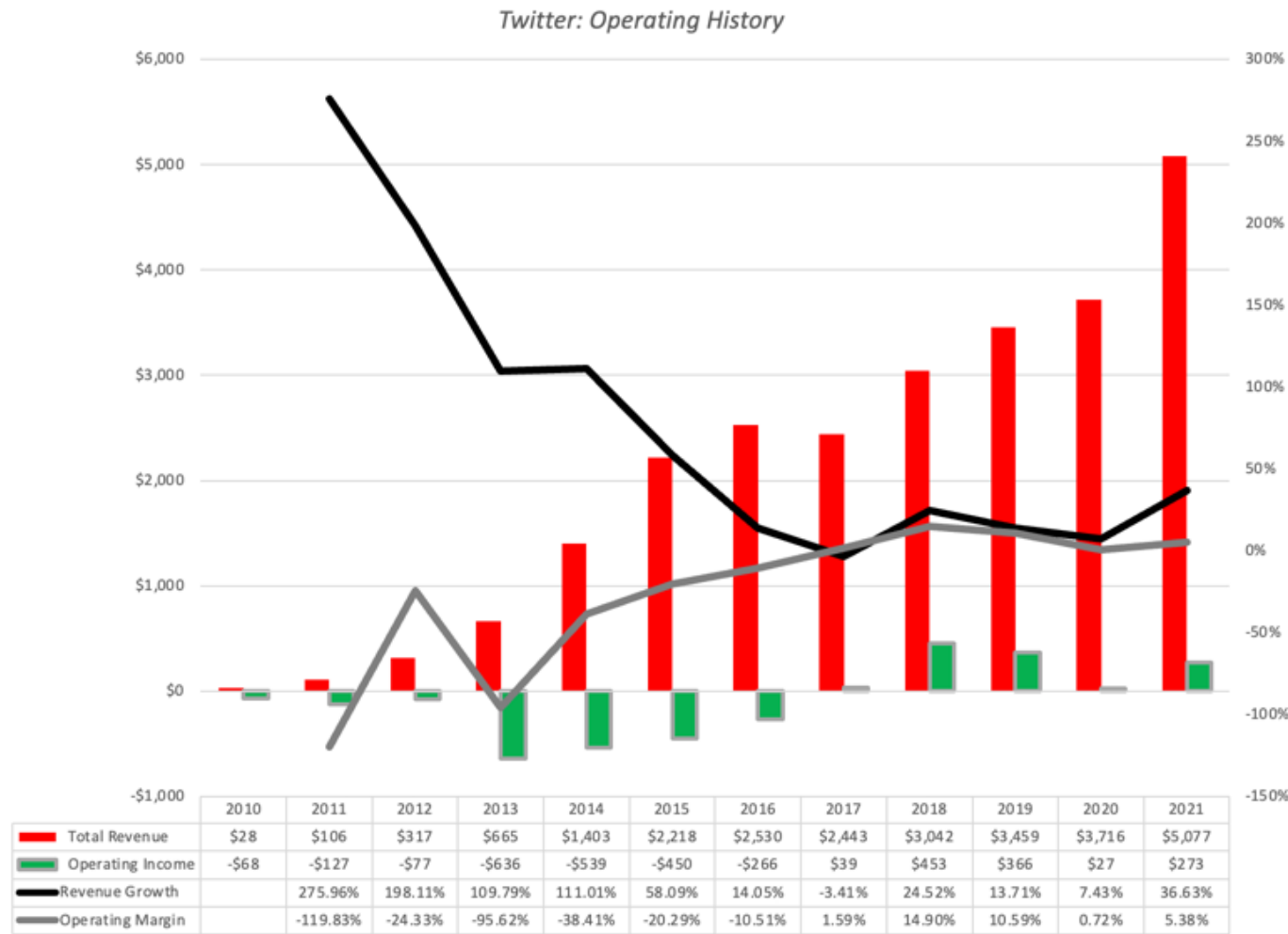
### Demographic profiles and party of regular social media news users in the U.S.

*% of each social media site's regular news consumers who are ...*





# Twitter's Operating History



# And Stock Prices..



# Twitter versus Snap

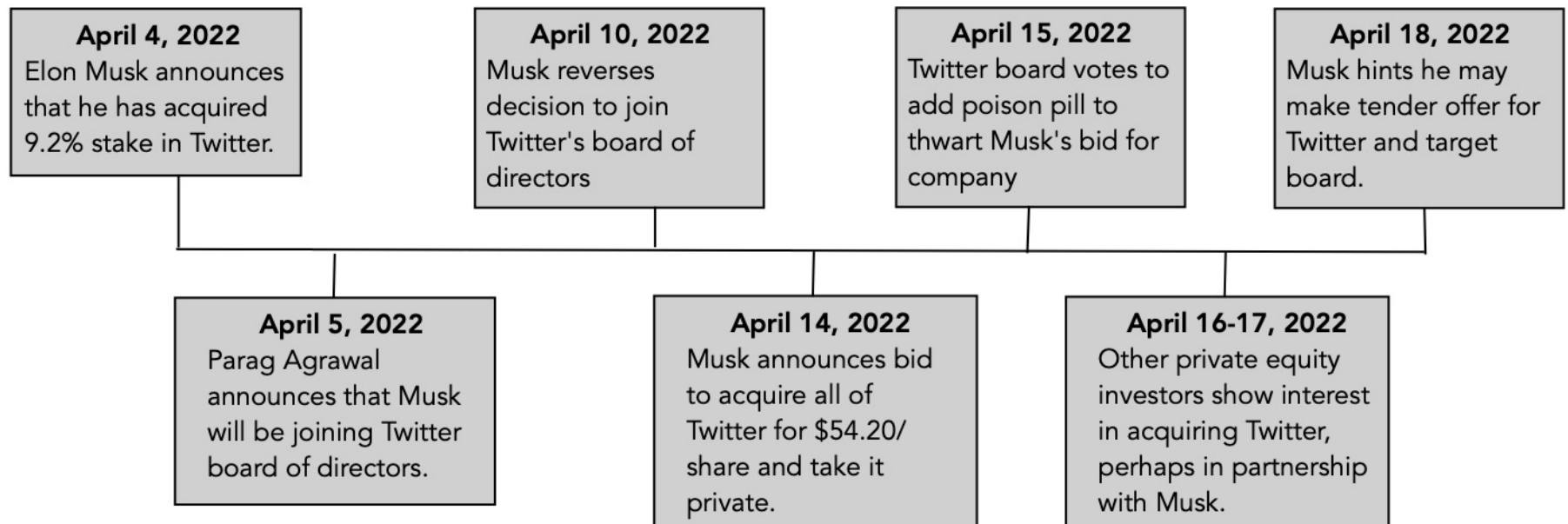
<i>In 2021</i>	<i>Twitter</i>	<i>Snap</i>
Daily Active Users	206	319
Revenues	\$5,077.00	\$ 4,117.00
Operating Income	\$ 273.00	\$ (702.00)
R&D Adjusted Income	\$ 966.00	\$ (55.00)
Operating Margin	5.38%	-17.05%
R&D Adj Operating Margin	19.03%	-1.34%
Market Capitalization (4/17/22)	\$ 34,420	\$ 53,910
Enterprise Value (4/17/22)	\$ 33,570	\$ 52,850
EV/Sales	6.61	12.84
EV/DAU	\$ 162.96	\$ 165.67

# Corporate Governance at Twitter

- In a period when companies, especially in the tech sector, fixed the corporate governance game in favor of insiders and incumbents, by issuing shares with different voting classes, Twitter stuck to the more traditional model, with equal voting right shares.
- Twitter came into its IPO, with a history of bloodletting at the top, with Jack Dorsey, who led the company at the start, getting pushed aside by Evan Williams, his co-founder, before reclaiming his place at the top. In fact, at the time of its IPO, Twitter's CEO was Dick Costolo, but he was replaced by Dorsey again, a couple of years later. Dorsey's founder status gave him cover, but his ownership stake of the company was not overwhelming enough to stop opposition.
- The corporate governance issues at Twitter came to a head in 2020, when Elliott Management, an activist hedge fund, purchased a billion dollars of Twitter stock, and demanded changes. While Dorsey was successful in fighting off their demands that he step down, he surprised investors and many company employees when he stepped down in November 2021, claiming that he was leaving of his own volition. As a replacement, the board did stay within the firm in picking a successor, Parag Agrawal, who joined Twitter as a software engineer in 2011 and rose to become Chief Technology Officer in 2017.

# The Musk Entrée!

## A Twitter/Musk Timeline: An Eventful Two Weeks



# The Arguments and Counters...

- While Musk's acquisition bid is anything but conventional, the gaming that it initiated on the part of Twitter, the target company, and Musk, the potential acquirer, was completely predictable.
- The company's initial response was that it was worth great deal more than Musk's offering price, and that Twitter shareholders would be receiving too little for their shares if they sold.
- Musk's response was that the market clearly did not believe that current management could deliver that higher value, and that he would be able to do much better with the platform.
- For shareholders in Twitter, who ultimately are the arbiters of this decision, the question is who do you trust?

# A Lowball Offer? Status Quo Value

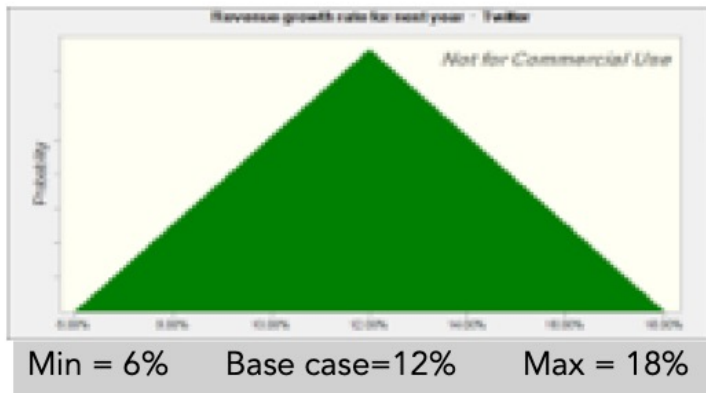
- Twitter's argument that Musk was lowballing value, by offering \$54.20 per share for the company, and that the company was worth a lot more is not a novel one, and it is heard in almost every hostile acquisition, from target company management.
- That argument can sometimes be true, since markets can undervalue companies, but is it the case with Twitter?
- To answer that question, I valued Twitter on April 4, at about the time that Musk announced his 9.2% stake, updating my story to reflect a solid performance from the company in 2021, and with Parag Agrawal in place as CEO.



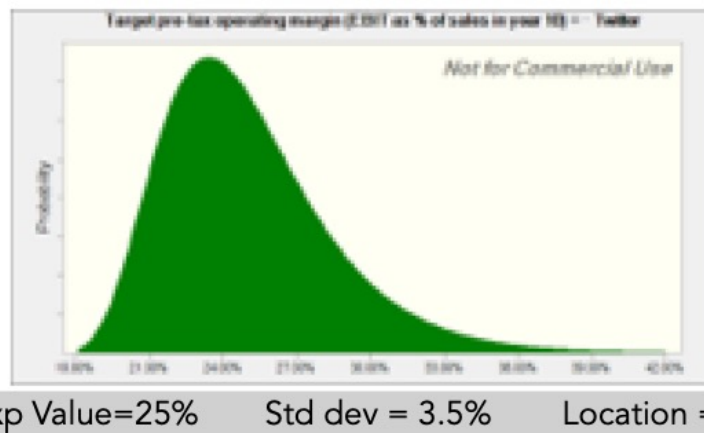
Twitter					Apr-22	
Untapped Potential or Flawed Platform						
Twitter will continue its path of monetizing its users, but in fits and starts, as the qualities that make it an appealing platform (brevity, timeliness, impulsivness) impede attempt to deliver operating success consistently. While user numbers will continue to grow slowly, the active user component will rise faster, and augmented by add ons (limited subscription memberships for prolific and commercial users), the margiins will continue to improve.						
The Assumptions						
	Base year	Next year	Years 2-5	Years 6-10	After year 10	Link to story
Revenues (a)	\$5,078.00	12.0%	12.00%	3.50%	3.50%	Revenue growth will run ahead of user growth, as more of these users become active
Operating margin (b)	19.02%	20.0%	20.00%	25.00%	25.00%	Limited subscription revenues will augment more creative ad strategy to deliver profits
Tax rate	25.00%		25.00%	25.00%	25.00%	Global/US marginal tax rate over time
Reinvestment (c )		2.80	2.80	2.80	38.89%	Investment in platform augmentations
Return on capital	8.14%	Marginal ROIC =	81.36%		9.00%	Unique platform and sticky users
Cost of capital (d)			8.34%	6.11%	6.11%	Cost of capital close to median company
The Cash Flows						
	Revenues	Operating Margin	EBIT	EBIT (1-t)	Reinvestment	FCFF
1	\$5,687.36	20.00%	\$1,137.47	\$1,137.47	\$217.99	\$919.48
2	\$6,369.84	21.00%	\$1,337.67	\$1,316.38	\$244.15	\$1,072.23
3	\$7,134.22	21.50%	\$1,533.86	\$1,150.39	\$273.45	\$876.94
4	\$7,990.33	22.00%	\$1,757.87	\$1,318.40	\$306.27	\$1,012.14
5	\$8,949.17	22.50%	\$2,013.56	\$1,510.17	\$343.02	\$1,167.15
6	\$9,870.94	22.61%	\$2,231.54	\$1,673.66	\$329.75	\$1,343.90
7	\$10,719.84	23.21%	\$2,487.58	\$1,865.69	\$303.69	\$1,562.00
8	\$11,459.50	23.80%	\$2,727.77	\$2,045.83	\$264.61	\$1,781.22
9	\$12,055.40	24.40%	\$2,941.73	\$2,206.30	\$213.18	\$1,993.12
10	\$12,477.34	25.00%	\$3,119.33	\$2,339.50	\$150.95	\$2,188.56
Terminal year	\$12,914.04	25.00%	\$3,228.51	\$2,421.38	\$941.65	\$1,479.73
The Value						
Terminal value	\$56,694.80					
PV(Terminal value)	\$27,083.90					
PV (CF over next 10 years)	\$8,723.78					
Value of operating assets =	\$35,807.68					
Adjustment for distress	\$0.00		Probability of failure = 0.00%			
- Debt & Minority Interests	\$5,546.60					
+ Cash & Other Non-operating assets	\$6,393.70					
Value of equity	\$36,654.78					
- Value of equity options	\$17.91					
Number of shares	797.60					
Value per share	\$45.93		Stock was trading at = \$42.00			



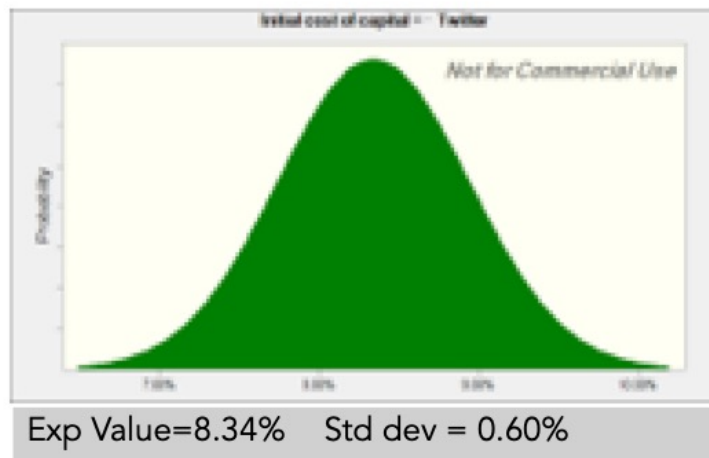
## Revenue Growth Rate - Years 1- 5



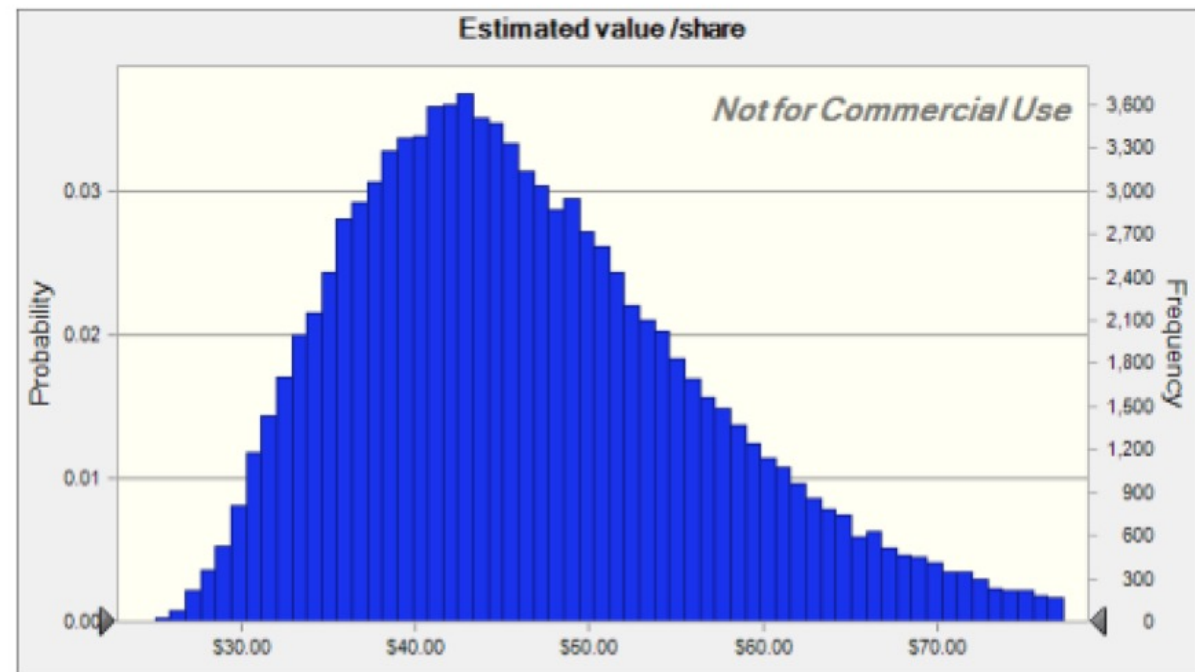
## Target Operating Margin



## Cost of Capital



## Twitter Valuation in April 2022: Simulation



Percentile	Value per share
0%	\$ 24.14
10%	\$ 34.42
20%	\$ 37.61
30%	\$ 40.27
40%	\$ 42.69
50%	\$ 45.17
60%	\$ 47.95
70%	\$ 51.08
80%	\$ 55.15
90%	\$ 61.32
100%	\$ 138.18

# Competing Views on Twitter

- Twitter's management will claim that the company's platform has the potential to deliver significantly more value, either by changing the business model (and including subscriptions and other revenue sources) or fine tuning the advertising model.
- On this count, Musk will agree with the argument that Twitter has untapped potential, but counter that he (and only he) can make the changes to Twitter's business model to deliver this potential. In short, investors will get to choose not only between competing visions for Twitter's future, but also who they trust to deliver those visions.
- Each side faces credibility problems with the market:
  - The problem that Twitter's management will face in mounting a case that Twitter is worth more, if it is run differently, is that they have been the custodians of the company for the last decade, and have been unable or unwilling to deliver these changes.
  - Elon Musk's problem, on the Twitter deal, is a different one. If you think Jack Dorsey was stretching the limits of his time by running two companies, I am not sure how to characterize what Musk will be doing, if he acquires Twitter, since he does have a trillion dollar company to run, in Tesla, not to mention SpaceX, the Boring company and a host of other ventures. His unpredictability makes it difficult to judge what his end game is, since he could do anything from selling his position tomorrow to bulldozing his way through a poison pill, taking Twitter down with him.

# Alternative Endings..

1. Status Quo: Twitter wins this round with Musk, and the existing management go back to their plans for incremental change that they have already put in motion, and hope that the payoffs of higher revenue growth and profitability will unlock share value.
2. Musk takes Twitter private: For Musk to succeed at this point, he has to be able to buy enough shares in a tender offer and/or convince other shareholders to put pressure on the board to remove the poison pill and allow him to move forward with his plans. The odds are against success, but then again, this is Elon Musk.
3. Independent, but with corporate governance changes: Having gone through five CEOs over Twitter's life, the dysfunction at the company may lie with the board, and not just with the CEO. In this scenario, institutional investors will follow through by pushing for change in the company, translating into new board members and perhaps even a new CEO.
4. Someone else acquires Twitter: There may be something to Musk's claim that the changes that are needed to make Twitter a functional business can only be made, if it is taken private. If so, it is the board may be willing to sell the company to someone other than Musk, albeit at a slightly higher price (if for no other reason than to save face. This will mean that Elon Musk will have accomplished much of what he set out to do, without spending \$43 billion dollars along the way or having to deal with the distractions that owning Twitter will bring to his other, more valuable, ventures.

# The Elephant in the Room...

- This is , at its core, a political story, not a financial one. To see why, consider a simple test. If you tell me which side of the political divide you fall on, I am fairly certain that I will be able to guess whether you favor or oppose Musk's takeover bid. As with most things political, you will provide an alternate, more reasoned, argument for why you are for or opposed, but you are deluding yourself, and hypocrisy is rampant on both sides.
  - If you are opposed to the deal, and your argument is that billionaires should not control social media platforms, that outrage cannot be selective, and you should be just as upset about Jeff Bezos owning the Washington Post or a George Soros bid for Fox News. If it is Musk's personality that you feel is what makes him an unsuitable owner, I wonder whether we should be requiring full personality tests of the owners of other media companies.
  - If you are for the deal, and it is because you want Twitter to be a bastion of free speech, it is worth remembering that every social media platform is involved in some degree of censoring, for legal reasons and self preservation. It is also worth noting that while those disaffected with Twitter have attempted to build their own social media platforms, they still get far more mileage from their presence on Twitter than from their posts on alternate platforms, and the complaints about Twitter not being balanced seem to end up being on Twitter.

# For perspective..

- Some critics of Musk seem to have decided that Twitter, in its current form, is a national treasure that needs to be preserved or at least protected from money grubbing barbarians.
- The brevity (of having to compress your thoughts into 280 characters) and timeliness of Twitter's platform has made it the place to go to get breaking news, but the notion that it is an educational platform shortchanges the meaning of learning, and the impulsiveness that it encourages from users is a recipe for tweeting remorse, or worse.
- I believe that while there are some who come to Twitter for news and witty repartee, many come to the platform for the same reasons that they slow down on highways to look at car crashes, i.e., to witness, and sometimes partake in, deranged arguments about trivial issues.
- Much as we like to complain about the ugliness and anger on social media, it is exactly those forces that draw us to it, and arguing that Elon Musk will make it worse, is missing the point that he symbolizes the strengths and weaknesses of the Twitter platform better than any other person walking the face of the earth.