



# FACEBOOK FEEDING FRENZY: FRIENDLESS, BUT FORMIDABLE

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# Facebook: At the Center of a Storm

- It was the news story on Cambridge Analytica's misuse of Facebook user data, in mid-March, that started the ball rolling and in the days since, not only have more unpleasant details emerged about Facebook's culpability, but the rest of the world seems to have decided to unfriend Facebook.
- More ominously, regulators and politicians have also turned their attention to the company and that attention will be heightened, with Zuckerberg testifying in front of Congress.
- That is a precipitous fall from grace for a company that only a short while ago epitomized the new economy.

# A Personal Odyssey: My IPO valuation of Facebook

- My IPO valuation: In the weeks leading up to its IPO, I valued Facebook on this blog at about \$30/share, with a story built around it becoming a Google wannabe.
- A Google Wannabe? If that sound insulting, it was not meant to be, since having a revenue path and operating margins that mimicked the most successful tech companies in the decade prior is quite a feat.

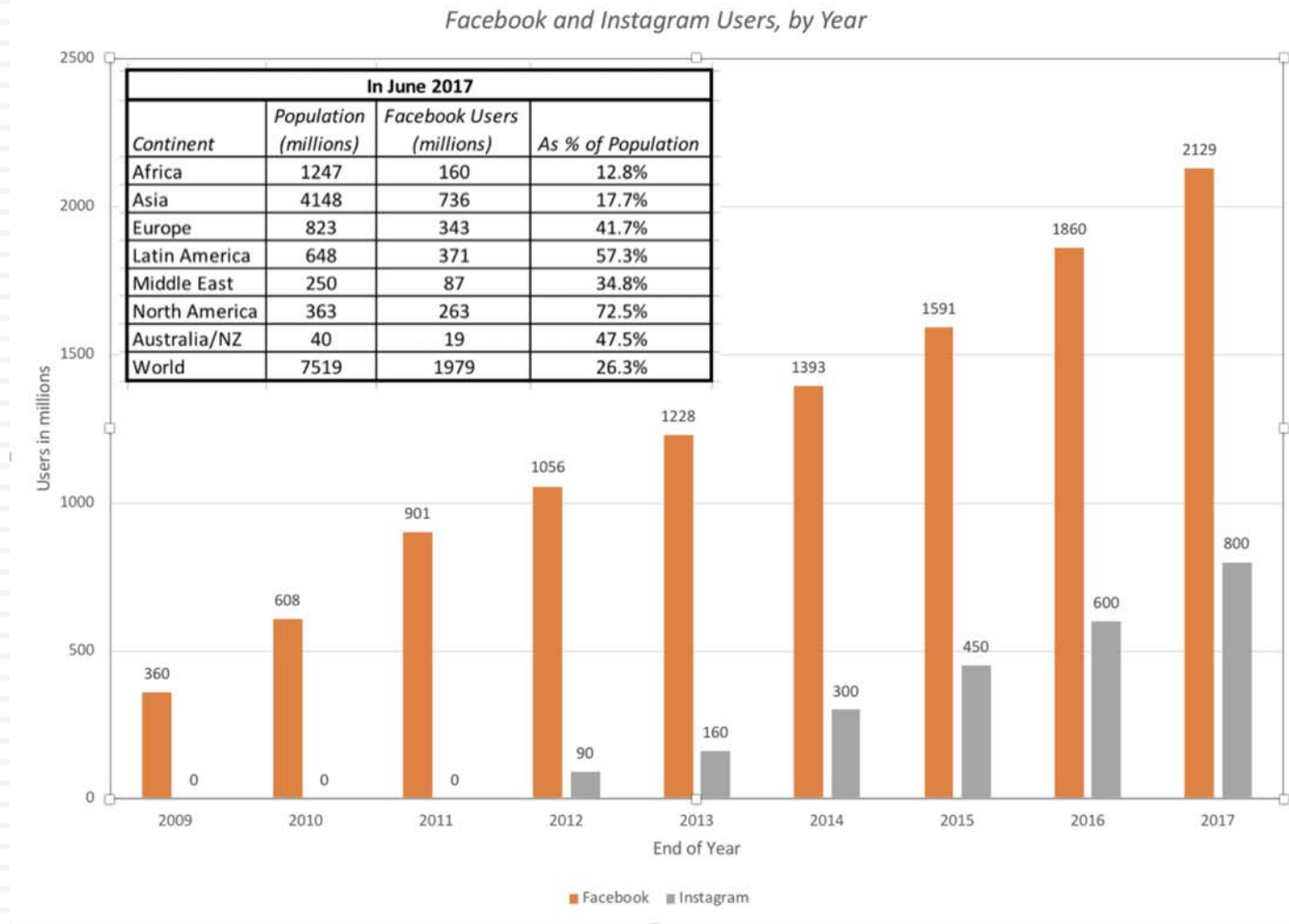
# The IPO's aftermath

- That initial public offering was among the most mismanaged in recent years and a combination of hubris and poor timing led to an offering day fiasco, where the investment bankers had to step in to support the priced.
- The first few months after the offering were tough ones for Facebook, with the stock dropping to \$18 by September 2012, when I argued that it was time to befriend the company and buy its stock, one of the few times in my life when I have bought a stock at its absolute low.

# And the rest of my Facebook story

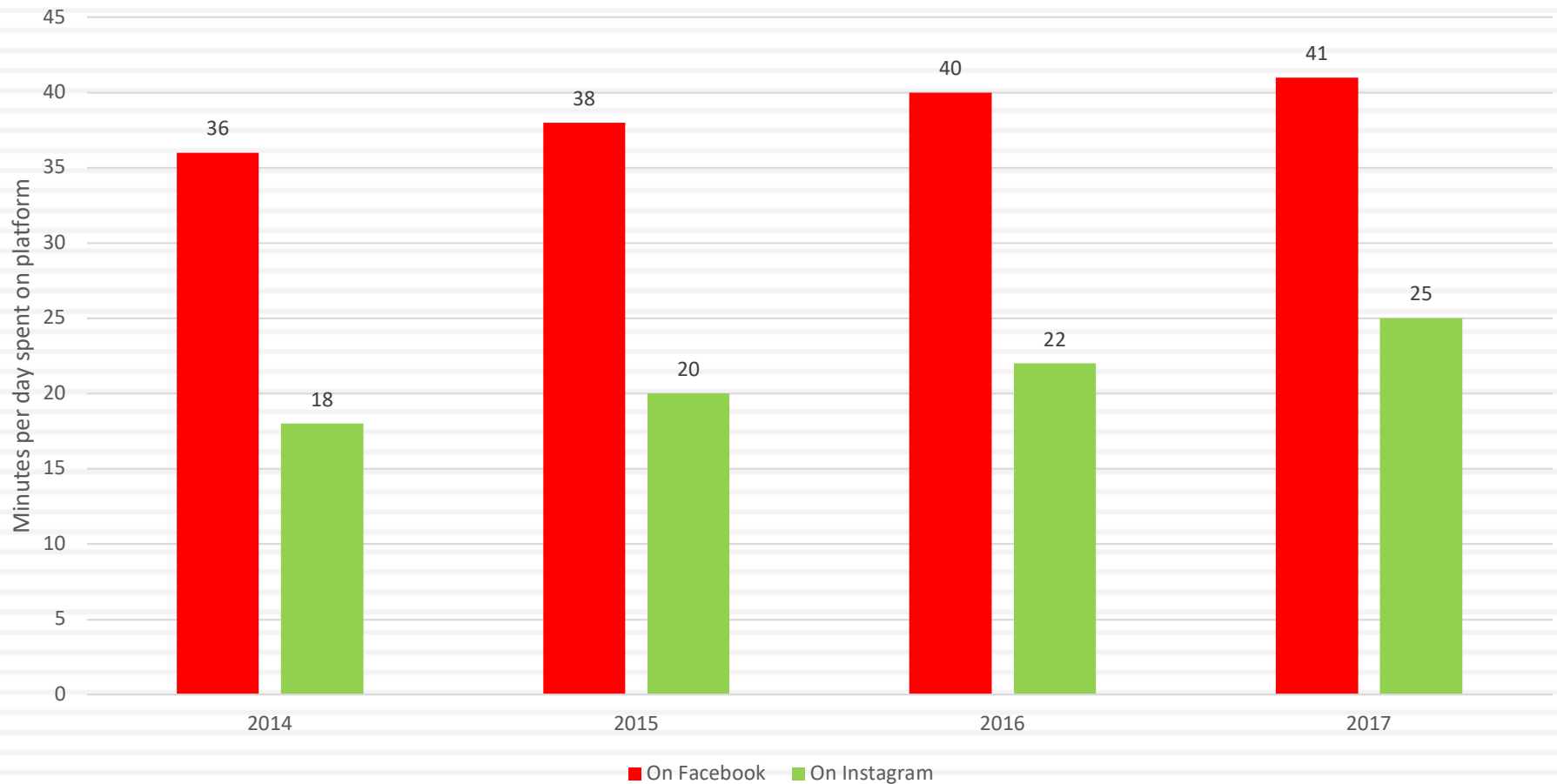
- I sold too early: I would like to tell you that I had the foresight to see Facebook's rise from 2012 through 2017 and that I held on to the stock, but I did not. I sold the stock just as it got to \$50, concerned that the advertising business was not big enough to accommodate the players (Google, the social media companies and traditional advertising companies), elbowing for market share.
- What I missed: I under estimated how much Google and Facebook would both expand the market and dominate it.
- No regrets: I have no regrets about selling too early. I did what I felt was right, given my assessment and investment philosophy, at the time.

# A Numbers Update on Facebook's Success: Let's start with users...



# And User Intensity

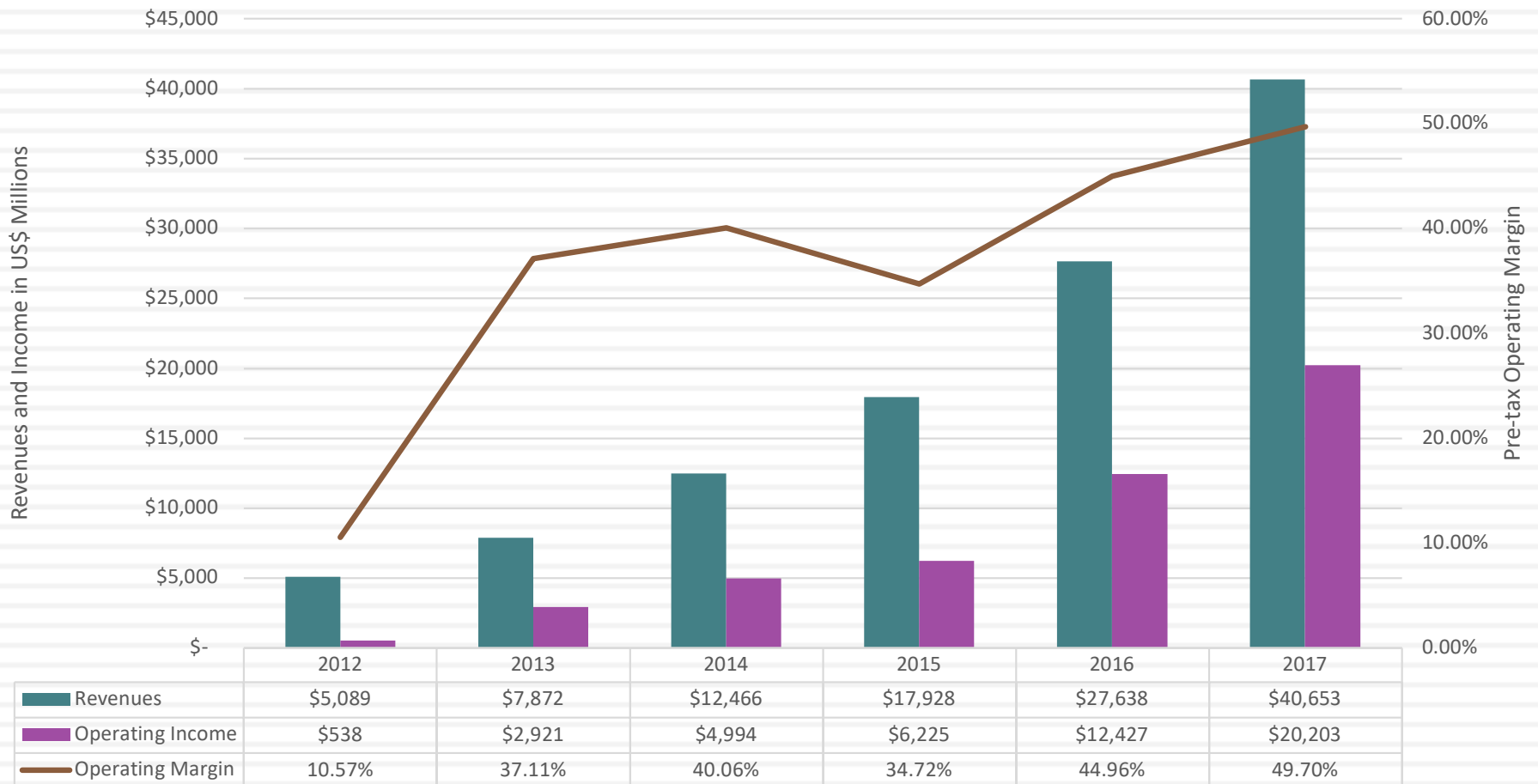
*User Intensity: Minutes spent per day on Facebook and Instagram*



# Translating to Revenues and Profits

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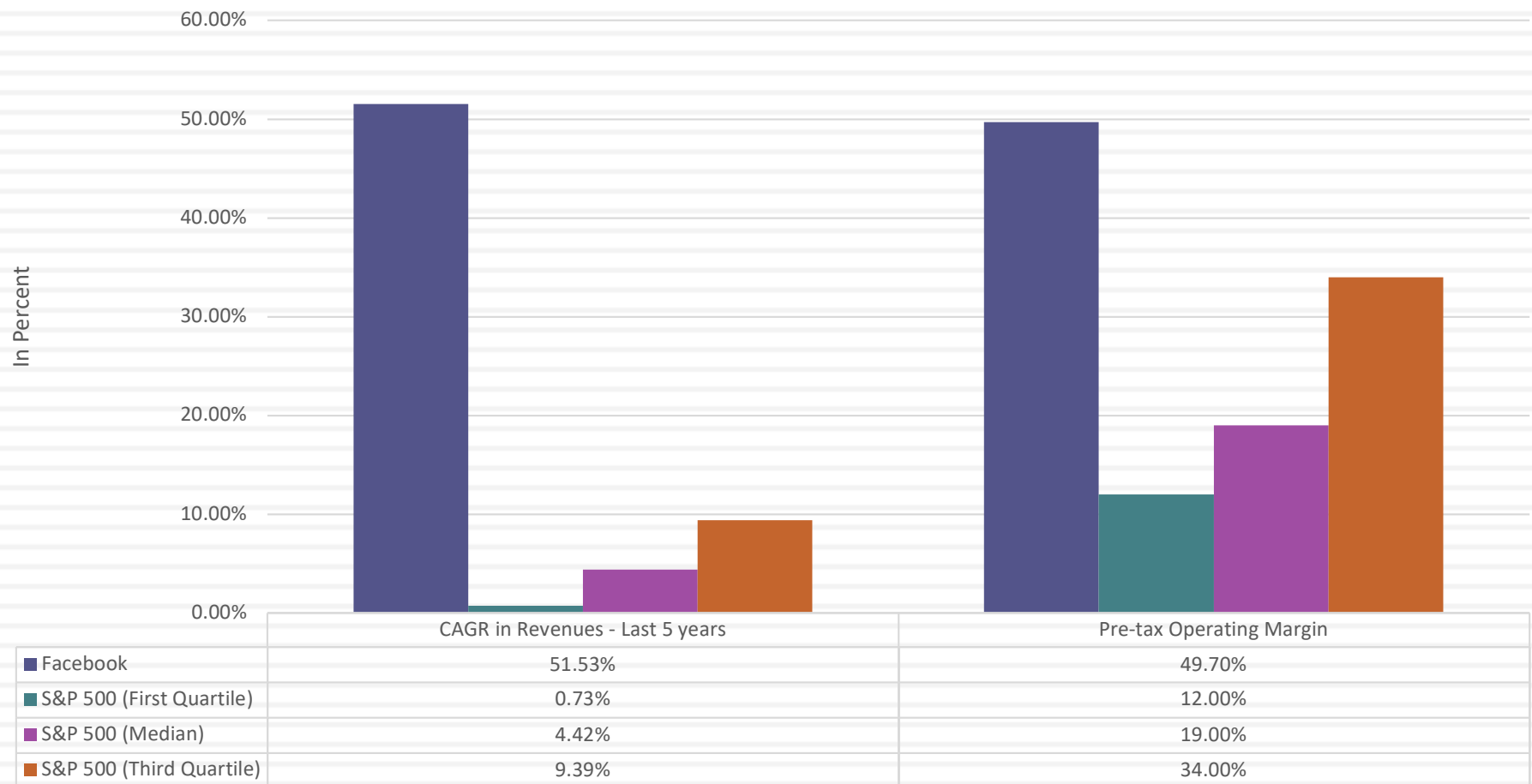
*Facebook: The Opening Act!*



# Making it a star!

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Facebook: Operating Numbers versus S&P 500



# A Moment of Honesty!

- Denial everywhere: While the Facebook story has been mostly one of successes, the company, its users and investors have been in denial about central elements in the story.
- The User Trade off: Facebook's users have been trading information on themselves to the company in return for a social media site where they can interact with friends, family and acquaintances, and their complaints about lost privacy ring hollow.
- The Corporate Secret: Facebook and its investors have been unwilling to face up to the reality that the company's high margins reflect its use of third parties and outsiders to collect and manage data, a business practice that is profitable but that also creates the potential for data leakages.

# The Data Problem: The first phase!

- While Facebook's trouble are often traced back to the stories in mid-March 2018, when the current user scandal news cycle began, its problems have been simmering for much longer.
- Put on the defensive, after the 2016 US presidential elections, for being a purveyor of fake news, Facebook announced in January 2018, that it had changed its news feed to emphasize user interaction over passive consumption of public news feeds.
- That change, which led to a leveling off in user numbers and a loss of advertising revenues was not well received on Wall Street, with the stock price dropping almost 5%.

# The knockout blow?

- In mid-March 2018, a whistle blower at Cambridge Analytica claimed that the company has not only accessed detailed user data on 50 million Facebook users but had used that data to target voters in political campaigns.
- In the three weeks since, the story has worsened for Facebook both in terms of numbers (with accessed users increasing to 85 million) and culpability (with Facebook's sloppiness in protecting user data highlighted).
- As politicians, commentators and competitors have jumped in to exploit the breach, financial markets knocked off \$81 billion from Facebook's market capitalization.

# The Worst Case Scenario

- The worst case scenario, and some have adopted this, is that the company will lose users, both in numbers and intensity, and that advertisers will pull out.
- If you add large fines and regulatory restrictions on data usage that may cripple Facebook's capacity to use that data in targeted advertising, you have the makings of a perfect storm, playing out as flat or declining revenues, big increases in operating costs and imploding value.

# What I see...

1. User loss, in numbers and intensity, will be muted: It is still early in this news cycle, and there may be more damaging revelations to come, but I don't believe that anything that has come out so far is egregious enough to cause large numbers of users to flee.
2. Advertisers will mostly stay on: While a few companies, like Mozilla, Pep Boys and Commerzbank, announced that they were pulling their ads from Facebook, there is little evidence that advertisers are abandoning Facebook in droves, since much of what attracted them to Facebook (its large and intense user base and targeting) still remains in place.
3. Data restrictions are coming: There is no doubt that data restrictions are coming, with the question being about how restrictive they will be and what it will cost Facebook to implement them.
4. There will be fines: This is a wild card in this process, with the possibility that the Federal Trade Commission may impose a fines on the company for violating an [agreement reached in 2011](#), where Facebook agreed to protect user data from unauthorized access.

# The Story Change




	Current	Valuation Input	Story Change
Revenues	\$40,653.00	\$39,153.00	Assume drop of \$1.5 billion in revenues, as some advertisers pull out or are shut out by FB.
Revenues (a)	CAGR of 51.53% over last 5 years	20% for next 5 years, dropping down to 2.75% after year 10	Ad revenue growth will drop, partly due to FB turning away some ads and partly from companies pulling back.
Operating margin (b)	57.72% (with R&D capitalized); 49.7% pre-capitalization.	Drop to 42% over next 5 years; 37-38% pre-capitalization.	Higher costs from data privacy restrictions will reduce margins in next five years.
Tax rate	22.63%	Rises to 25% over next 10 years	Moves towards a global tax rate
Reinvestment (c )	1.25	Stays at 1.25, translating into \$91 billion in reinvestment Over next 10 years	Primarily acquisitions & technology, some for data protection.
Return on capital	ROIC between 35% and 45%	Marginal ROIC = 42.28%	Low capital intensity + Large user base = High return on capital
Cost of capital (d)	Around 8%	8.28%	In the 70th percentile of all global companies.

## Facebook

### Friendless, but still Formidable

Facebook will suffer short term damage from data scandal, with lower user growth and immediate loss of advertising revenues. The privacy concerns that recent scandals have brought to the surface will translate into tighter restrictions, from both within and without, in how that data is used, which will increase costs (and reduce profit margins) over time. In the long term, the size and intensity of its user base will allow it to continue to generate returns on capital that exceed the cost of capital over time, with any added business that Facebook can generate from its users representing icing on the cake.

### The Assumptions

	Base year	Years 1-5	Years 6-10		After year 10	Link to story
Revenues (a)	\$ 40,653	20.00% 	2.75%		2.75%	Loss of \$1.5 billion in sales from advertisers pulling out in base year & lower growth in the future
Operating margin (b)	57.72%	57.72% 	42.00%		42.00%	Higher costs from data privacy restrictions reduce margins, with the drop happening in first 5 years.
Tax rate	22.63%	22.63% 	25.00%		25.00%	Tax rate increases to global average.
Reinvestment (c)		Sales to capital ratio 1.25		RIR =	22.92%	Status quo leads to \$91 billion in reinvestment over next 10 years
Return on capital	36.43%	Marginal ROIC =	45.33%		12.00%	Low capital intensity + User base competitive advantage = High ROC
Cost of capital (d)		8.28% 	8.00%		8.00%	Cost of capital in 70th percentile of global companies.

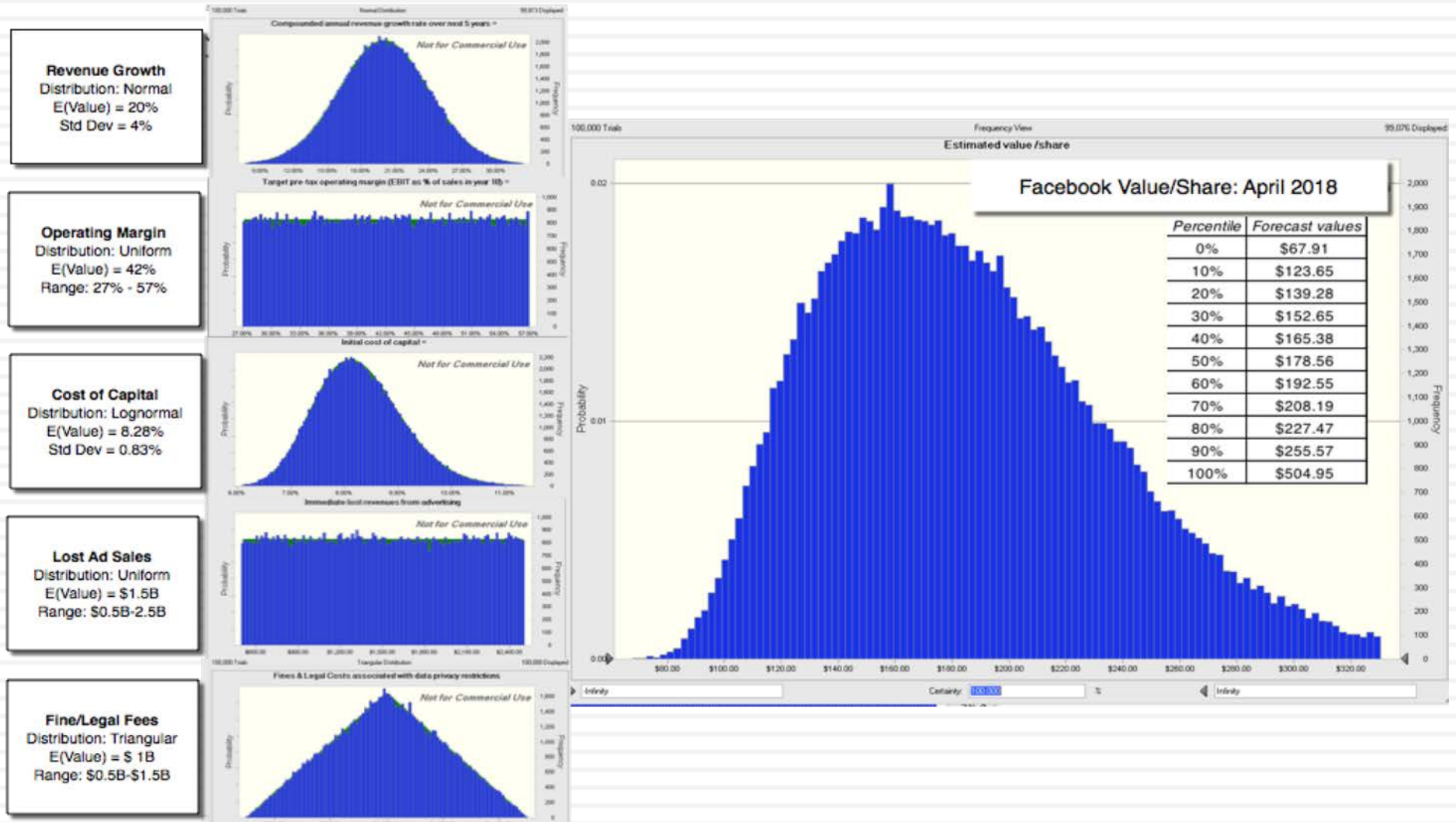
### The Cash Flows

	Revenues	Operating Margin	EBIT	EBIT (1-t)	Reinvestment	FCFF
1	\$ 47,284	54.57%	\$ 25,805	\$ 19,966	\$ 5,323	\$ 14,643
2	\$ 56,740	51.43%	\$ 29,182	\$ 22,579	\$ 7,592	\$ 14,987
3	\$ 68,088	48.29%	\$ 32,878	\$ 25,438	\$ 9,110	\$ 16,328
4	\$ 81,706	45.14%	\$ 36,885	\$ 28,539	\$ 10,932	\$ 17,607
5	\$ 98,047	42.00%	\$ 41,180	\$ 31,862	\$ 13,119	\$ 18,743
6	\$ 114,274	42.00%	\$ 47,995	\$ 36,907	\$ 13,027	\$ 23,880
7	\$ 129,244	42.00%	\$ 54,282	\$ 41,484	\$ 12,018	\$ 29,467
8	\$ 141,716	42.00%	\$ 59,521	\$ 45,205	\$ 10,012	\$ 35,193
9	\$ 150,502	42.00%	\$ 63,211	\$ 47,708	\$ 7,054	\$ 40,654
10	\$ 154,641	42.00%	\$ 64,949	\$ 48,712	\$ 3,323	\$ 45,389
Terminal year	\$ 158,894	42.00%	\$ 66,735	\$ 50,052	\$ 11,470	\$ 38,581

### The Value

Terminal value	\$ 734,884		
PV(Terminal value)	\$ 334,356		
PV (CF over next 10 years)	\$ 155,629		
Value of operating assets =	\$ 489,985		
Adjustment for distress	\$ -	Probability of failure =	0.00%
- Debt & Minority Interests	\$ 3,889		
- Fines and legal costs	\$ 1,000	Expected FTC fine = \$1 billion	
+ Cash & Other Non-operating assets	\$ 41,711		
Value of equity	\$ 526,807		
- Value of equity options	\$ 448		
Number of shares	2,901.00		
Value per share	\$ 181.44	Stock was trading at =	\$155.00

# Dealing with Uncertainty



# Time for a Decision

- There is rampant hypocrisy amongst Facebook's critics, many of whom have used it as a platform to rant about societal sins or political differences.
- We wax eloquent about invasion of privacy and how data is sacred, all too often on our favorite social media platforms, while revealing details about our personal lives that would make Kim Kardashian envious. I will paraphrase Shakespeare, and argue that the fault for our loss of privacy is not in our social media, but in our sharing.
- I will invest in Facebook, with neither shame nor apology, because I think it remains a good business that I can buy at a reasonable price.