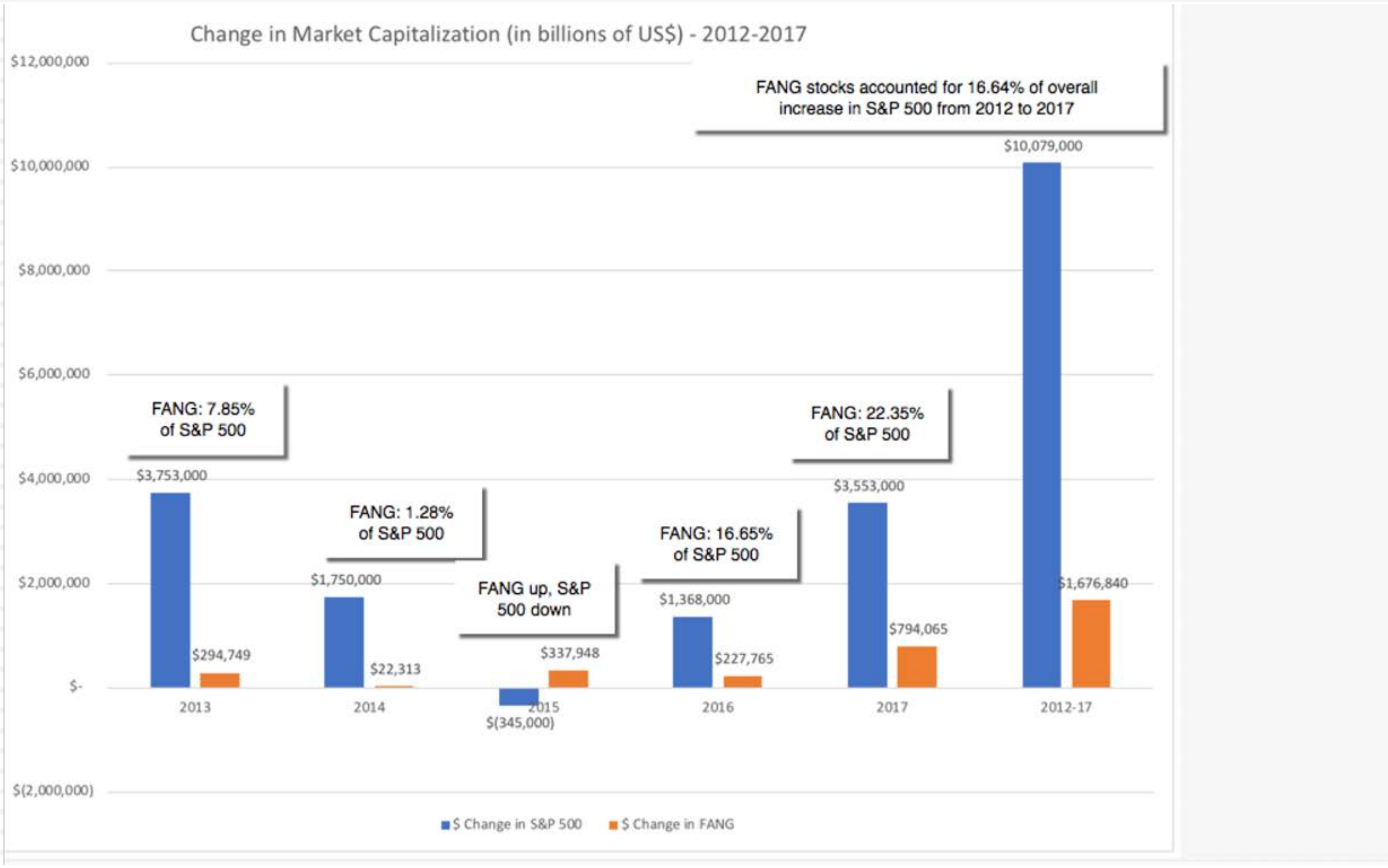
THE FANG LETDOWN: COME EASY, GO EASY!

Aswath Damodaran

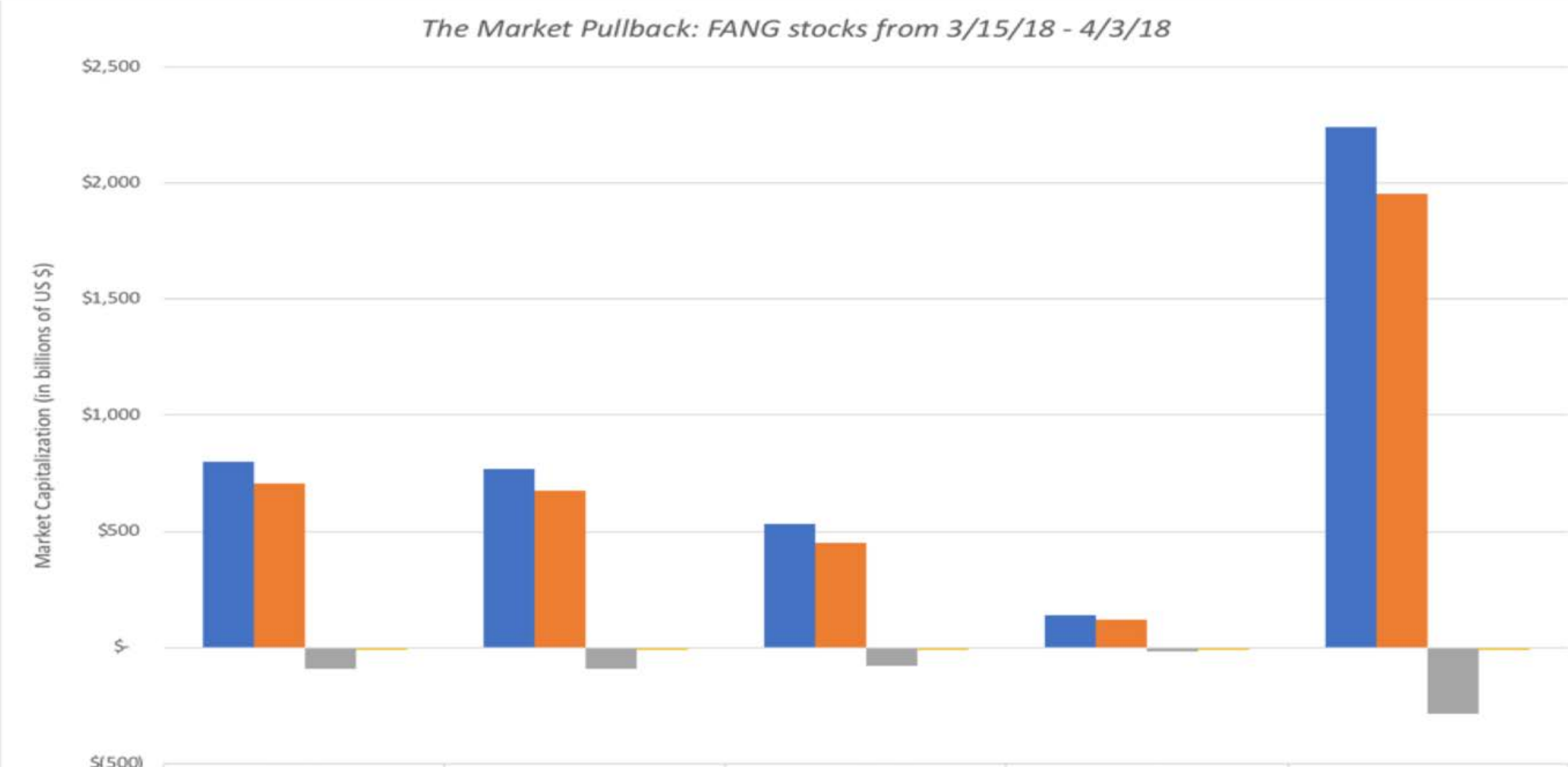
The Rise of FANG: From 2012 to 2017

Date	S&P 500	Google (2006)	Amazon (2005)	Facebook (2013)	Netflix (2010)	FANG	FANG as % of S&P 500
12/31/12	$ 12,742,000	$ 248,461	$ 123,985	$ 70,821	$ 9,228	$ 452,495	3.55%
12/31/13	$ 16,495,000	$ 398,788	$ 164,734	$ 159,537	$ 24,185	$ 747,244	4.53%
12/31/14	$ 18,245,000	$ 359,747	$ 164,638	$ 218,323	$ 26,849	$ 769,557	4.22%
12/31/15	$ 17,900,000	$ 478,168	$ 278,364	$ 310,558	$ 40,415	$ 1,107,505	6.19%
12/31/16	$ 19,268,000	$ 500,588	$ 394,840	$ 378,530	$ 61,312	$ 1,335,270	6.93%
12/31/17	$ 22,821,000	$ 752,662	$ 692,249	$ 560,927	$ 123,497	$ 2,129,335	9.33%

FANG and the S&P 500: Change in Value

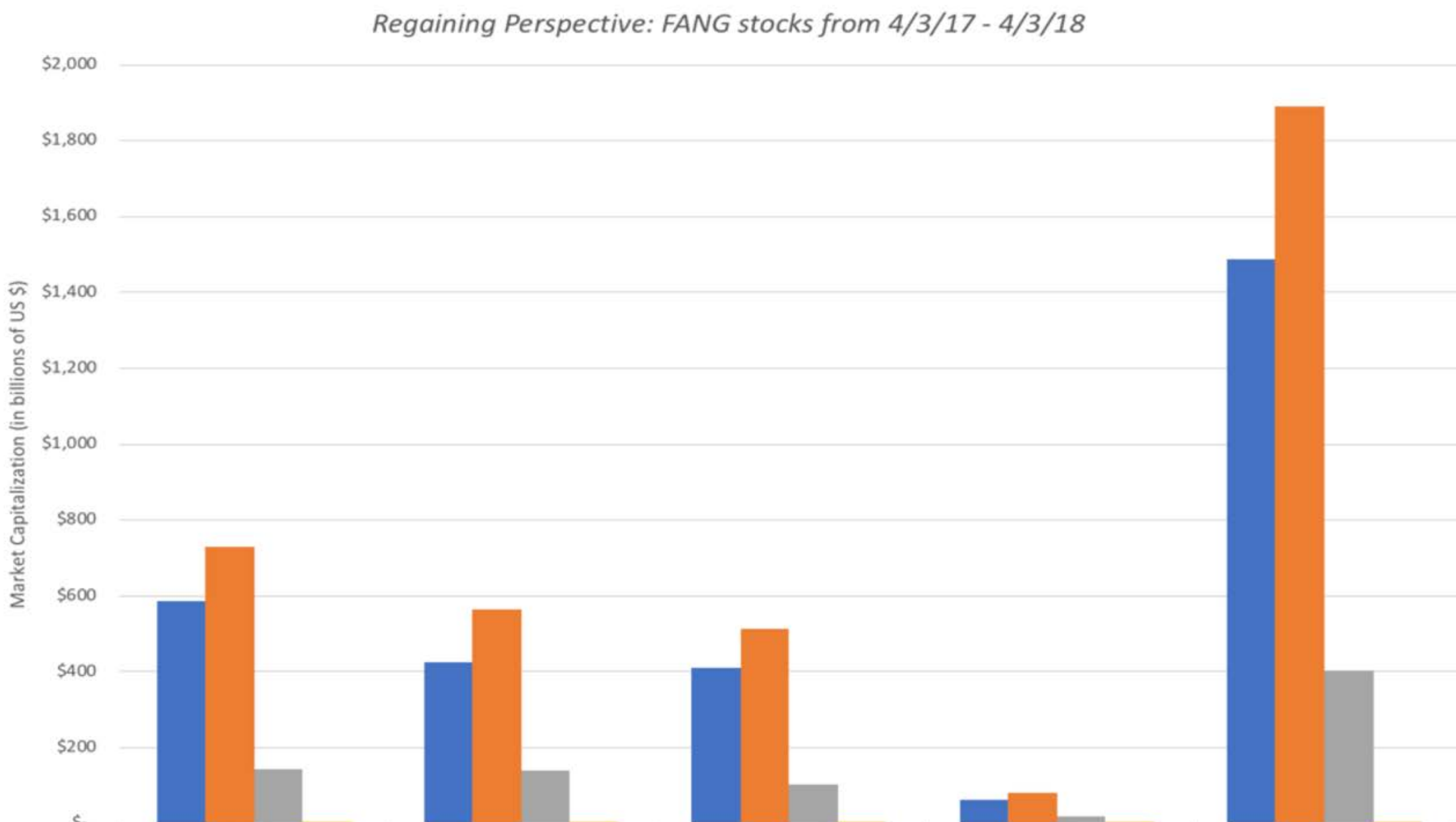


A Reversal in Fortunes: March 15, 2018 – April 2, 2018



	Alphabet	Amazon	Facebook	Netflix	FANG
3/15/18	$800	$766	$534	$139	$2,239
4/3/18	$706	$674	$453	$123	$1,957
$ Change	$(93)	$(92)	$(81)	$(16)	$(282)
% Change	-11.66%	-12.02%	-15.09%	-11.65%	-12.60%

Here's some perspective



	Alphabet	Amazon	Facebook	Netflix	FANG
4/3/17	$586	$425	$411	$63	$1,486
4/3/18	$729	$564	$513	$83	$1,889
$ Change	$143	$138	$102	$20	$403
% Change	24.47%	32.47%	24.70%	31.36%	27.12%

The FANG Story Line

- Scaling Success: Each of these companies has been able to keep revenue growing rapidly, even as they scale up and acquire larger market share.
- Bigger Slice of a Bigger Pie: They have changed the businesses that they have entered, increasing the size of the total market by attracting new customers, while also changing the way business is run to their benefit.
- Profitability: Google and Facebook are money machines. Amazon and Netflix don't look as good on the surface, but capitalizing some of their mis-categorized operating expenses makes them look better.

The Roots of Success

- Centralized Power: These companies are more corporate dictatorships, than corporate democracies. All four of these companies continue to be run by founder/CEOs, whose visions and narratives have focused these companies.
- Big Data: You can argue that what Google learns from our search behavior, Facebook from our social media interactions, Netflix from our video watching choices and Amazon from our shopping carts (and Alexa) is central to these companies being able to scale up successfully and change the businesses they are in.
- Intimidation Factor: There is one final intangible in the mix and that is the perception that these companies have created in regulators, customers and competitors that they are unstoppable.

Has the story changed?

- CEO heads cannot roll: Unlike traditional companies facing crises, where CEOs can be offered by a board of director as a sacrificial offering to calm investors, regulators or politicians, the FANG companies and their CEOs are so intertwined, with power entrenched in the current CEOs, this option is off the table.
- The Dark Side of Sharing The recent news stories about how the data that Facebook has accumulated on us was used has pushed some of us out of denial and perhaps into a reassessment of how we share data and how that data is used. It has also created a firestorm about data sharing and privacy that may result in restrictions in how the data gets used.
- No Friends: When other companies feel threatened by your success and growth, it should come as no surprise that many of them are cheering, as you stumble.

Three Scenarios

1. Sharing Pull Back: It is possible that the news stories about how exposed we have left ourselves, as a consequence of our sharing, will lead us to all to reassess how much and how we interact online.
2. Tempest in a teapot: The story will blow over and that not only will the companies revert back to their old ways, but that they will continue to accumulate users and grow revenues, while doing so.
3. Data Protections: There may be new restrictions on how the data that is collected from their usage is utilized by the companies. That would include not only privacy restrictions, similar to those already in place in the EU, but also regulations on how the data is collected, stored and shared. In addition, the companies themselves may feel pressure to change current business practices, which while profitable, have left data vulnerabilities.

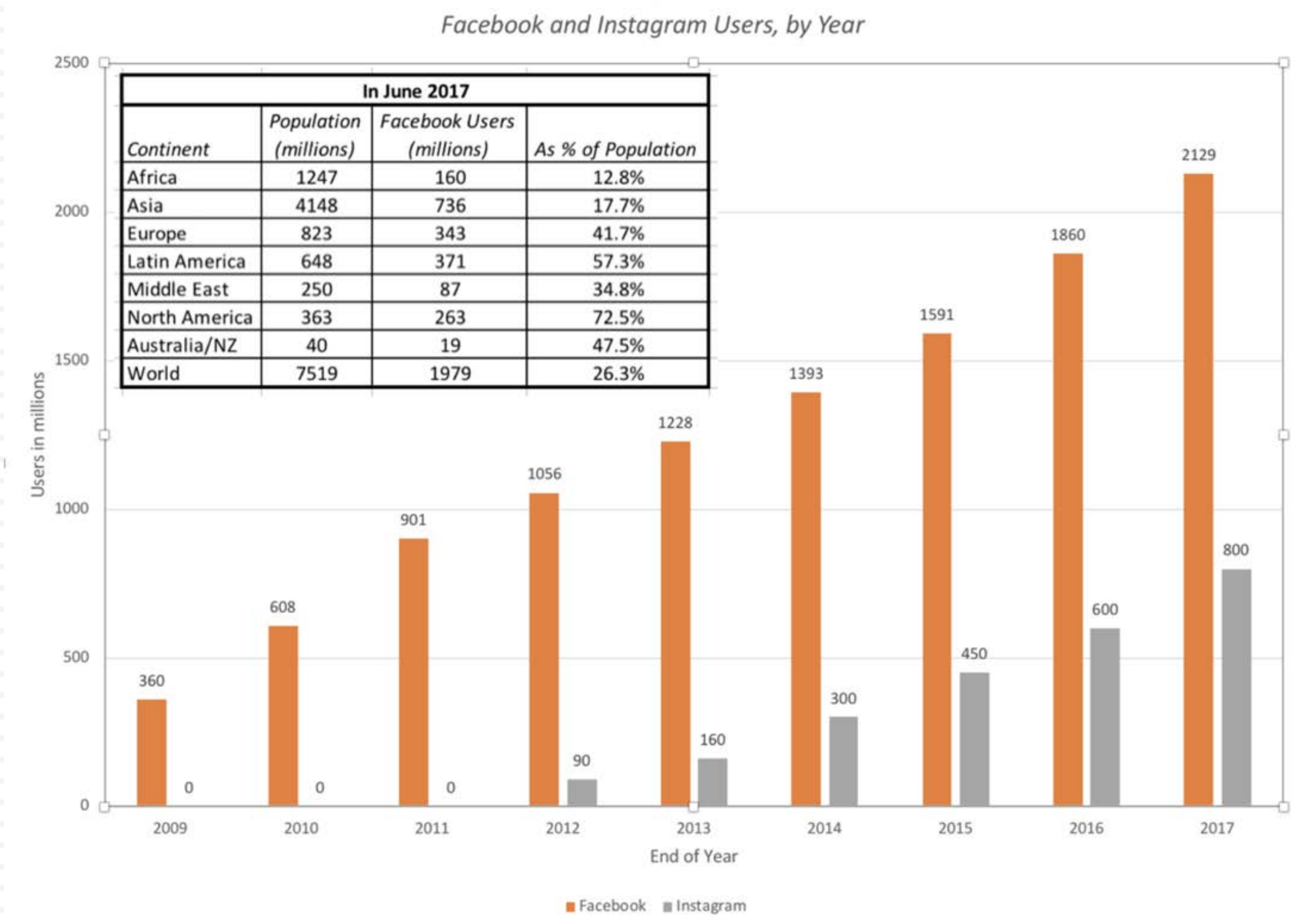
FACEBOOK FEEDING FRENZY: FRIENDLESS, BUT FORMIDABLE

Aswath Damodaran

A Personal Odyssey: My IPO valuation of Facebook

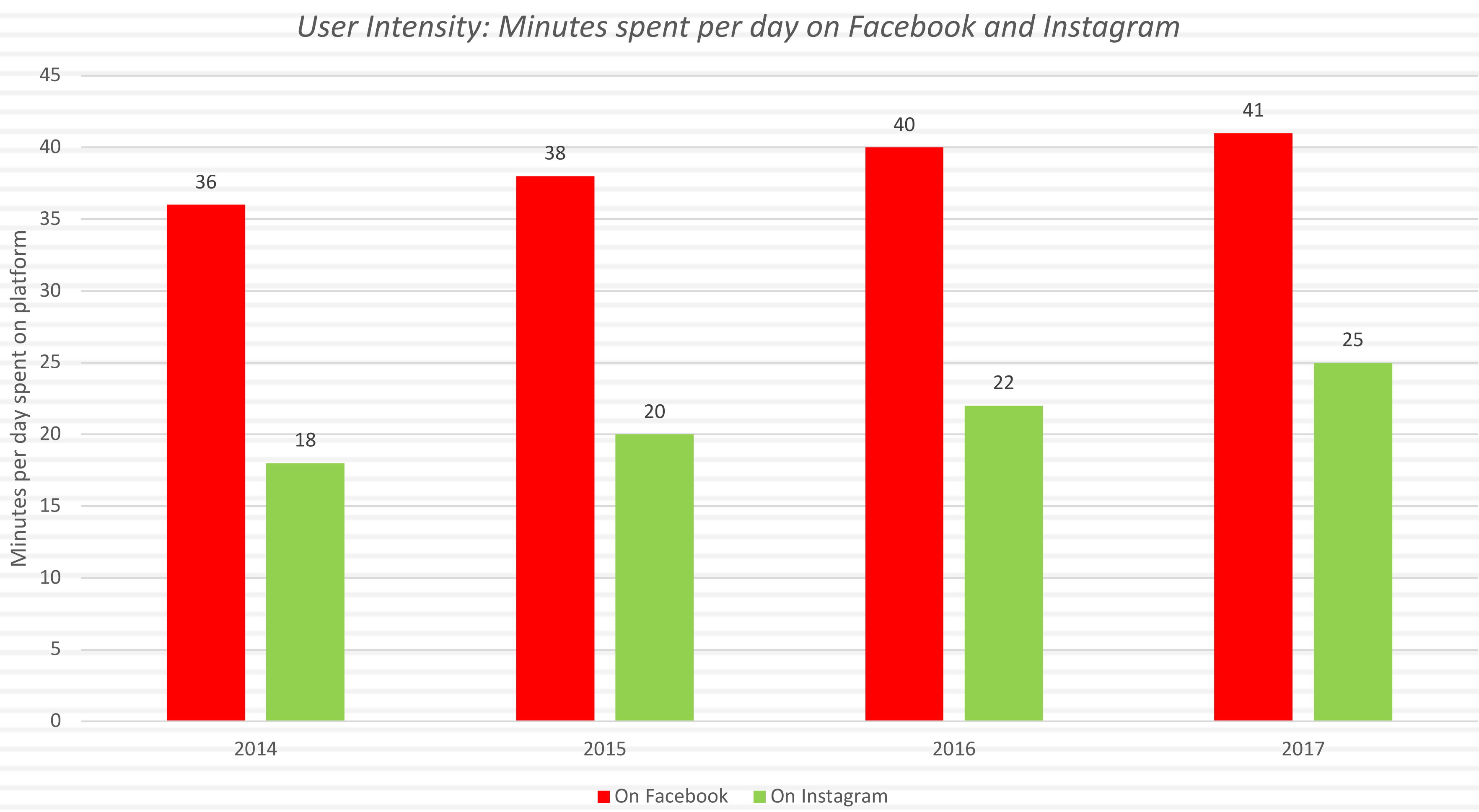
- My IPO valuation: In the weeks leading up to its IPO, I valued Facebook on this blog at about $30/share, with a story built around it becoming a Google wannabe.
- A Google Wannabe? If that sound insulting, it was not meant to be, since having a revenue path and operating margins that mimicked the most successful tech companies in the decade prior is quite a feat.
- The IPO Mess up: After a screwed-up IPO, the stock had a very rough first few months, with the stock price dropping to $18 in September 2012. It was one of the few times, perhaps the only, where I bought a stock at its absolute low.
- I sold too early: I sold the stock when it hit $50, but I have no regrets.

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

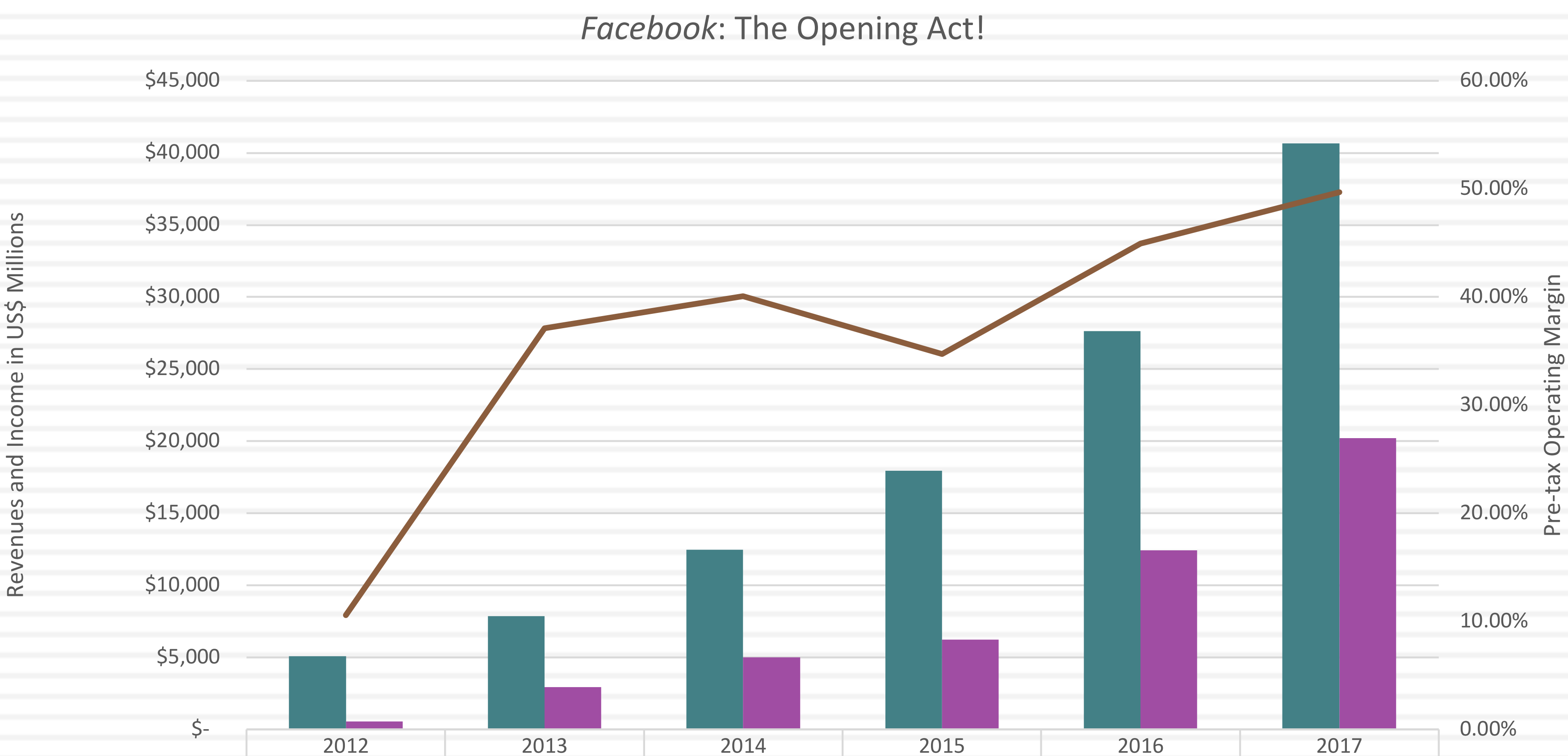


In June 2017			
Continent	*Population (millions)*	*Facebook Users (millions)*	*As % of Population*
Africa	1247	160	12.8%
Asia	4148	736	17.7%
Europe	823	343	41.7%
Latin America	648	371	57.3%
Middle East	250	87	34.8%
North America	363	263	72.5%
Australia/NZ	40	19	47.5%
World	7519	1979	26.3%

And User Intensity



Translating to Revenues and Profits



	2012	2013	2014	2015	2016	2017
Revenues	$5,089	$7,872	$12,466	$17,928	$27,638	$40,653
Operating Income	$538	$2,921	$4,994	$6,225	$12,427	$20,203
Operating Margin	10.57%	37.11%	40.06%	34.72%	44.96%	49.70%

Making it a star!

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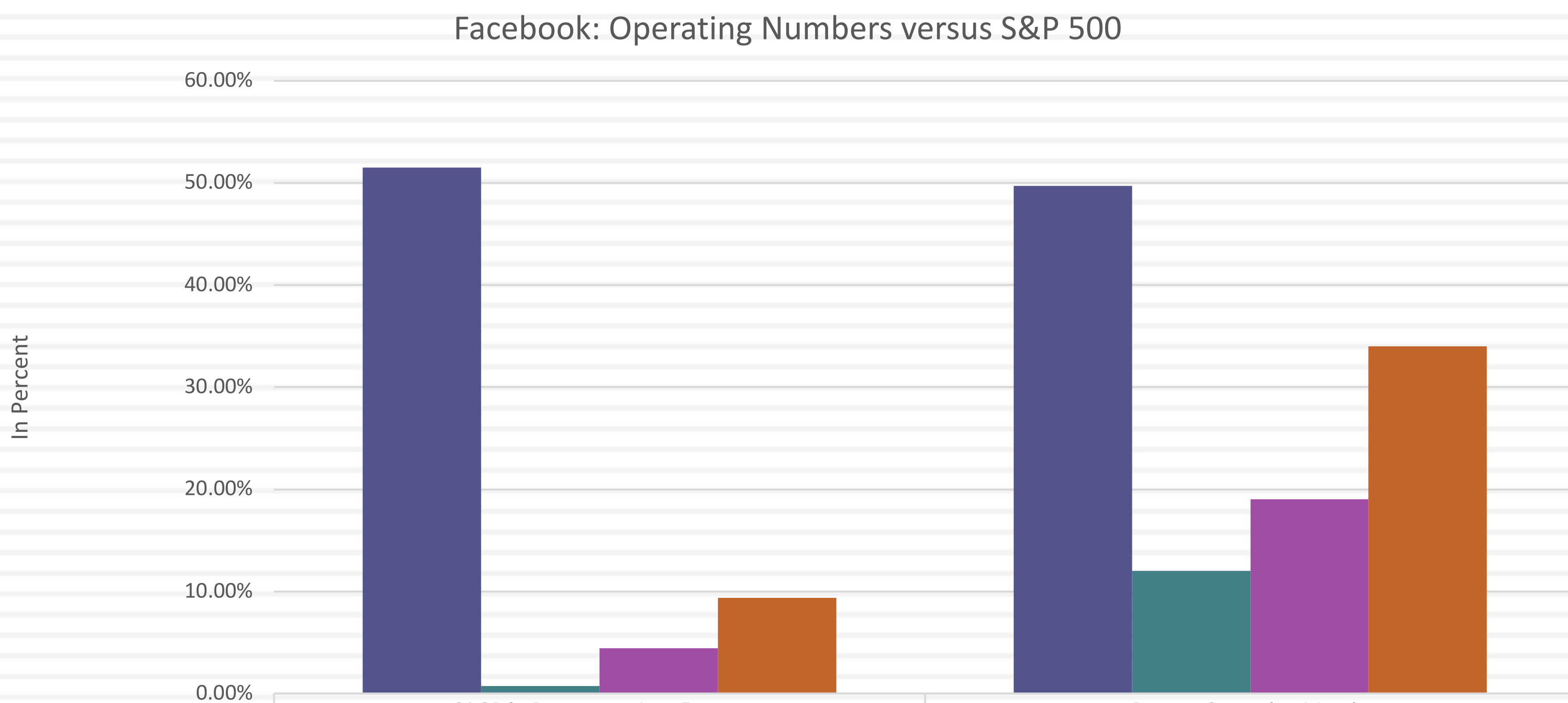


	CAGR in Revenues - Last 5 years	Pre-tax Operating Margin
Facebook	51.53%	49.70%
S&P 500 (First Quartile)	0.73%	12.00%
S&P 500 (Median)	4.42%	19.00%
S&P 500 (Third Quartile)	9.39%	34.00%

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 Scandal

- 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.

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 0ver 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 wihin 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 competivie 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 & Mnority 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

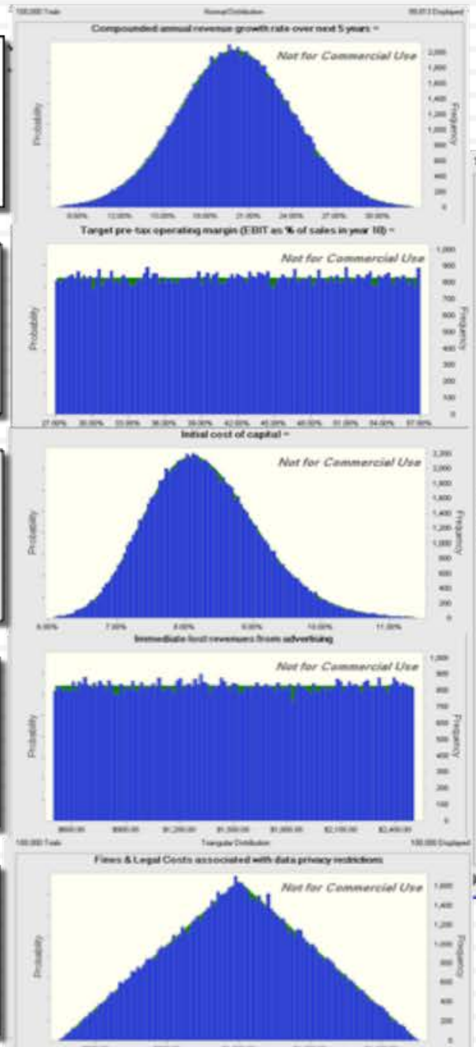
Revenue Growth
Distribution: Normal
E(Value) = 20%
Std Dev = 4%

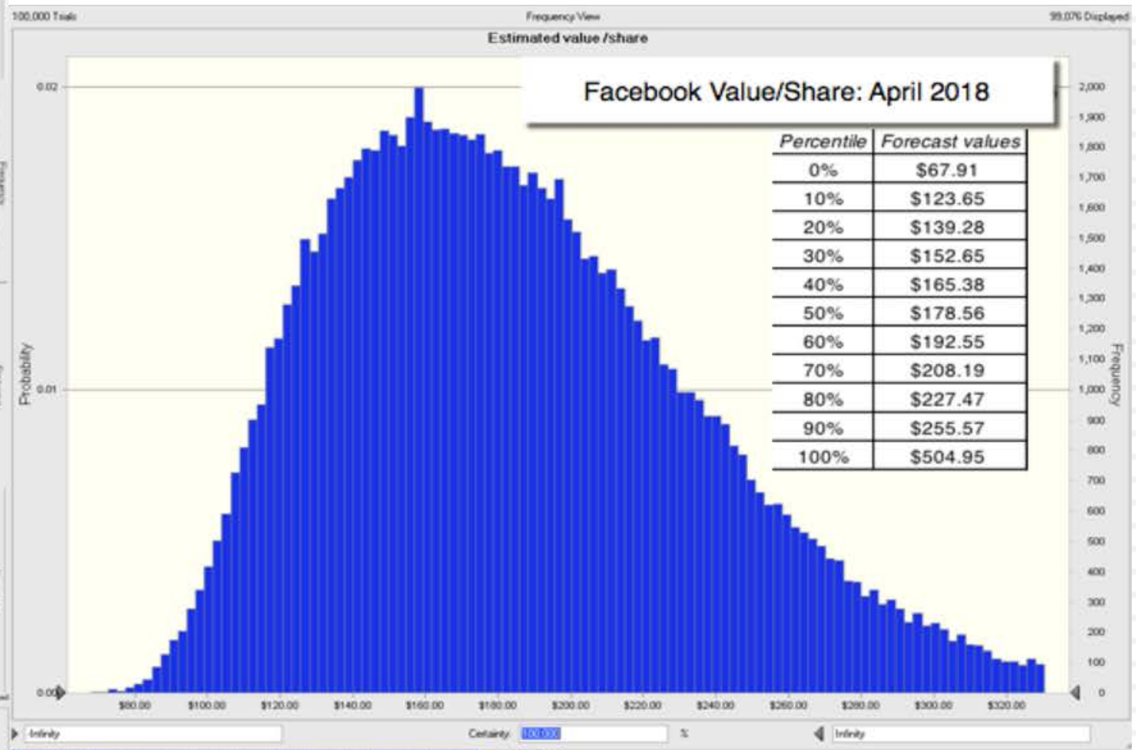
Operating Margin
Distribution: Uniform
E(Value) = 42%
Range: 27% - 57%

Cost of Capital
Distribution: Lognormal
E(Value) = 8.28%
Std Dev = 0.83%

Lost Ad Sales
Distribution: Uniform
E(Value) = $1.5B
Range: $0.5B-2.5B

Fine/Legal Fees
Distribution: Triangular
E(Value) = $ 1B
Range: $0.5B-$1.5B





Percentile	Forecast values
0%	$67.91
10%	$123.65
20%	$139.28
30%	$152.65
40%	$165.38
50%	$178.56
60%	$192.55
70%	$208.19
80%	$227.47
90%	$255.57
100%	$504.95

My Investment Judgment

- There is rampant hypocrisy amongst Facebook's critics, many of whom have used it are using 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.

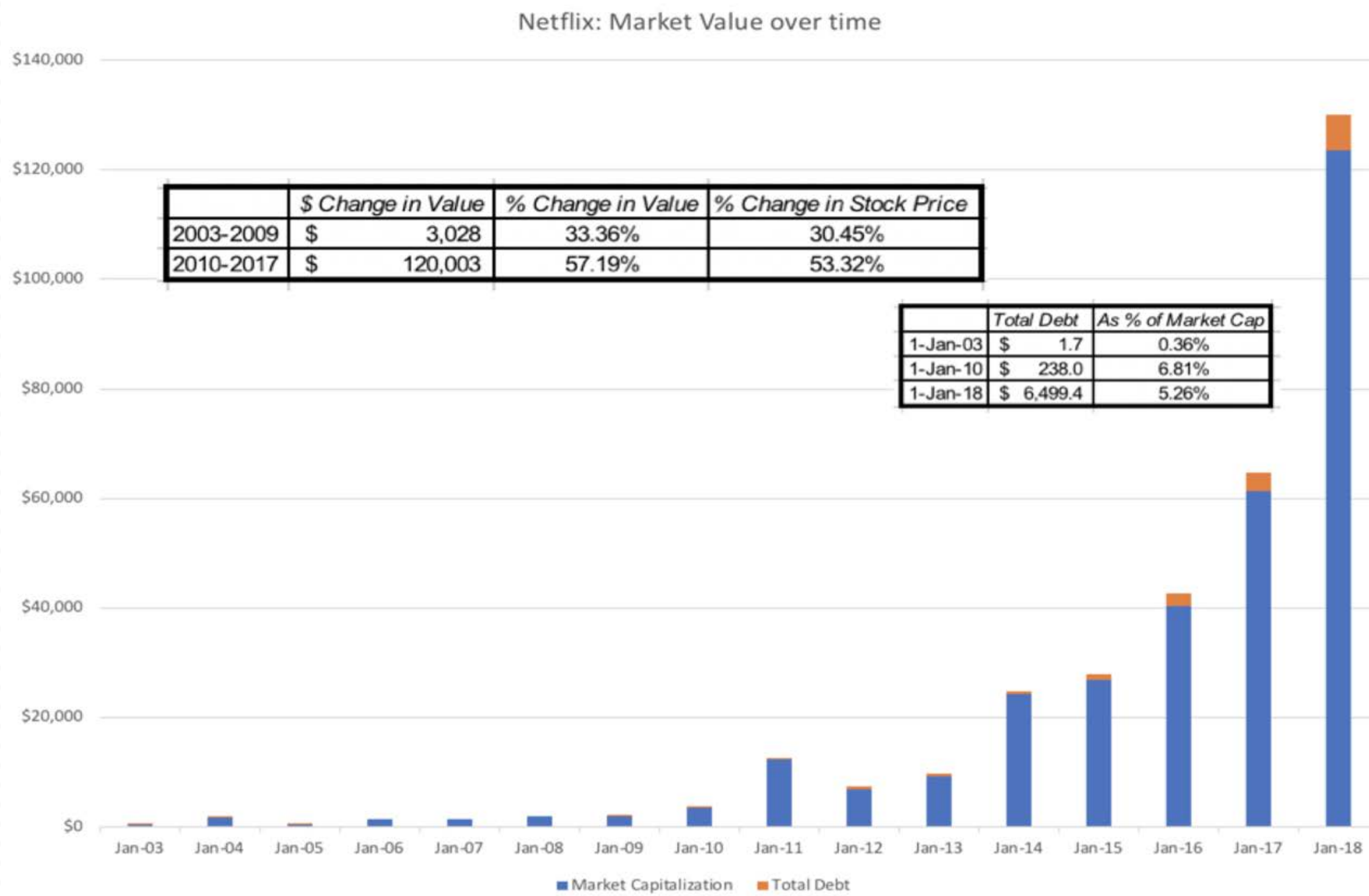
NETFLIX: THE FUTURE OF ENTERTAINMENT OR HOUSE OF CARDS?

Aswath Damodaran

Setting the Table

- Netflix has changed not just the entertainment business, but also the way that we (the audience) watch television.
- In the process, it has also enriched its investors, as its market capitalization climbed to $139 billion in March 2018 and even after the market correction for the FANG stocks, its value is substantial enough to make it one of the largest entertainment company in the world.
- Among the FANG stocks, with their gigantic market capitalizations, it remains the smallest company on both market value and operating metrics, but it has almost as big an impact on our daily lives as its larger peers.

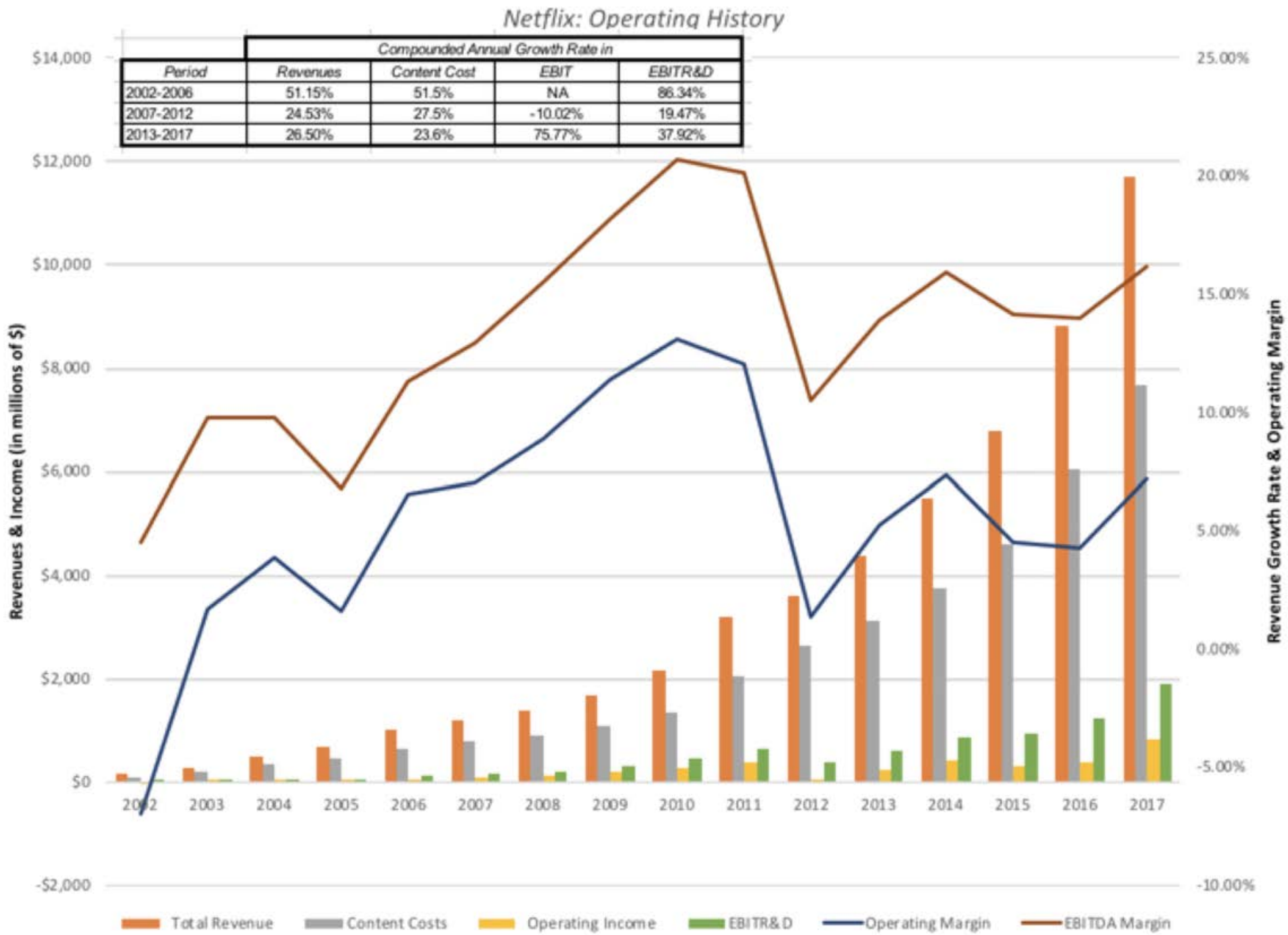
The Rise of Netflix



	$ Change in Value	% Change in Value	% Change in Stock Price
2003-2009	$ 3,028	33.36%	30.45%
2010-2017	$ 120,003	57.19%	53.32%

	Total Debt	As % of Market Cap
1-Jan-03	$ 1.7	0.36%
1-Jan-10	$ 238.0	6.81%
1-Jan-18	$ 6,499.4	5.26%

Netflix: Operating History



	Compounded Annual Growth Rate in			
Period	Revenues	Content Cost	EBIT	EBITR&D
2002-2006	51.15%	51.5%	NA	86.34%
2007-2012	24.53%	27.5%	-10.02%	19.47%
2013-2017	26.50%	23.6%	75.77%	37.92%

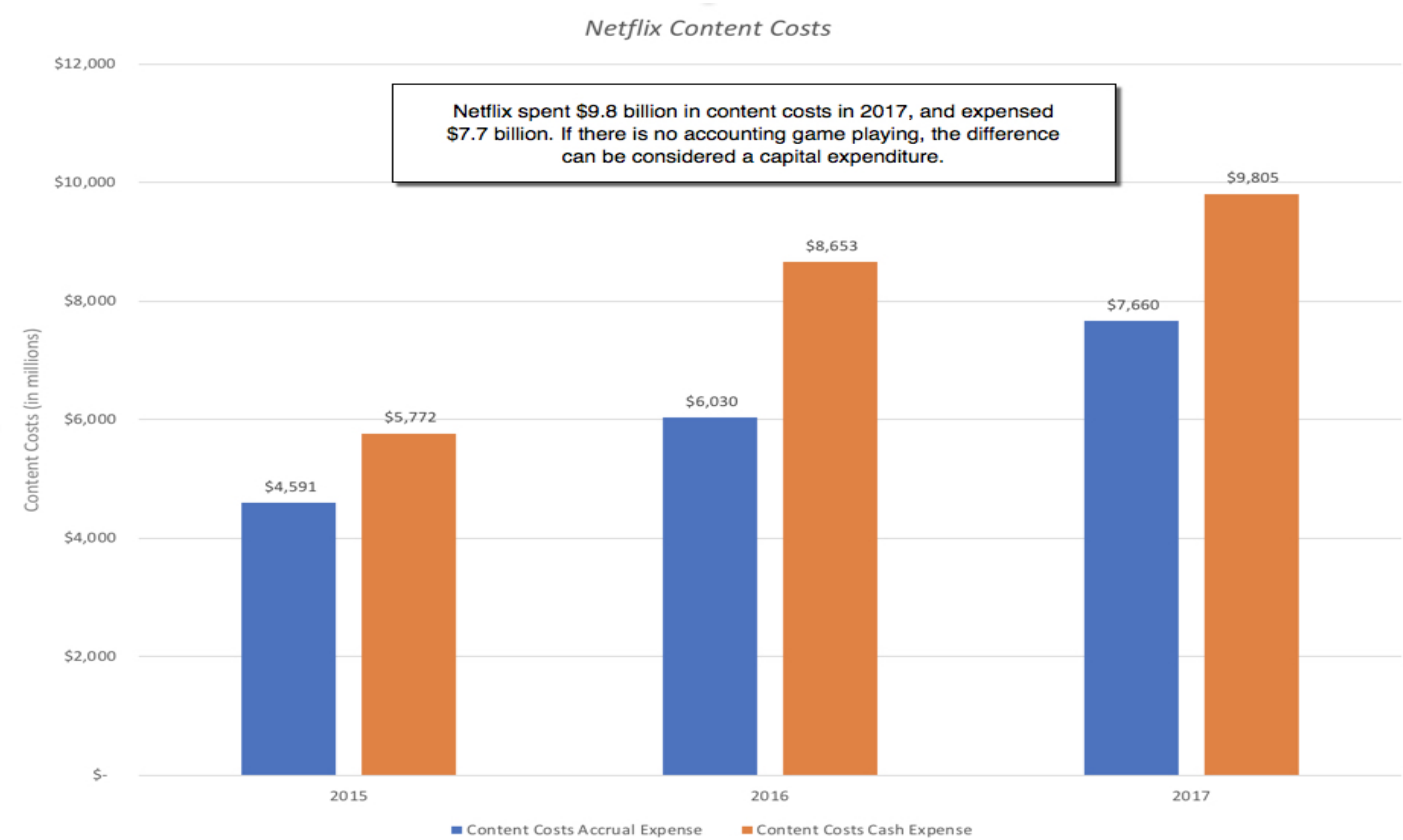
The Three Phases of Netflix History

- DVDs in the Mail: In the first five-year period, 2002 through 2006, the company mailed out DVDs and videos to its subscribers, challenging the video rental business, where brick and mortar video rental stores represented the status quo, and Blockbuster was the dominant player.
- The Rise of Streaming: As technology evolved to allow for the streaming of movies, Netflix adapted, with a few rough spots, to the new technology, while its brick and mortar competitors imploded. Netflix saw a drop in revenue growth that was not unexpected, but it also saw its content costs rise at a faster rate than revenues, as content providers (the movie studios) starting charging higher prices for content.
- The Content Maker: In in the 2013-2017 time period, by shifting to original content, first with television series and later with direct-to-streaming movies. For the first time in its existence, Netflix saw content costs rise at a rate slower than its growth in revenues, with operating profit margins, both before and after R&D reflecting this development.

The State of the Game

1. A Big Spender on Content: Netflix spends billions of dollars on content each year, but the way the content is accounted for can make it difficult to decipher how much.
2. With more and more on original content: More and more of Netflix spending is on original content, first on television and now on direct-to-streaming movies.
3. Adept at playing the expectations game: Netflix has managed to make markets focus on subscription count and gloss over its sharp edges.
4. And globalizing to succeed at it: To keep adding to its subscriber count, it has to go where the numbers are, in the rest of the world.

1. Big Content Spender



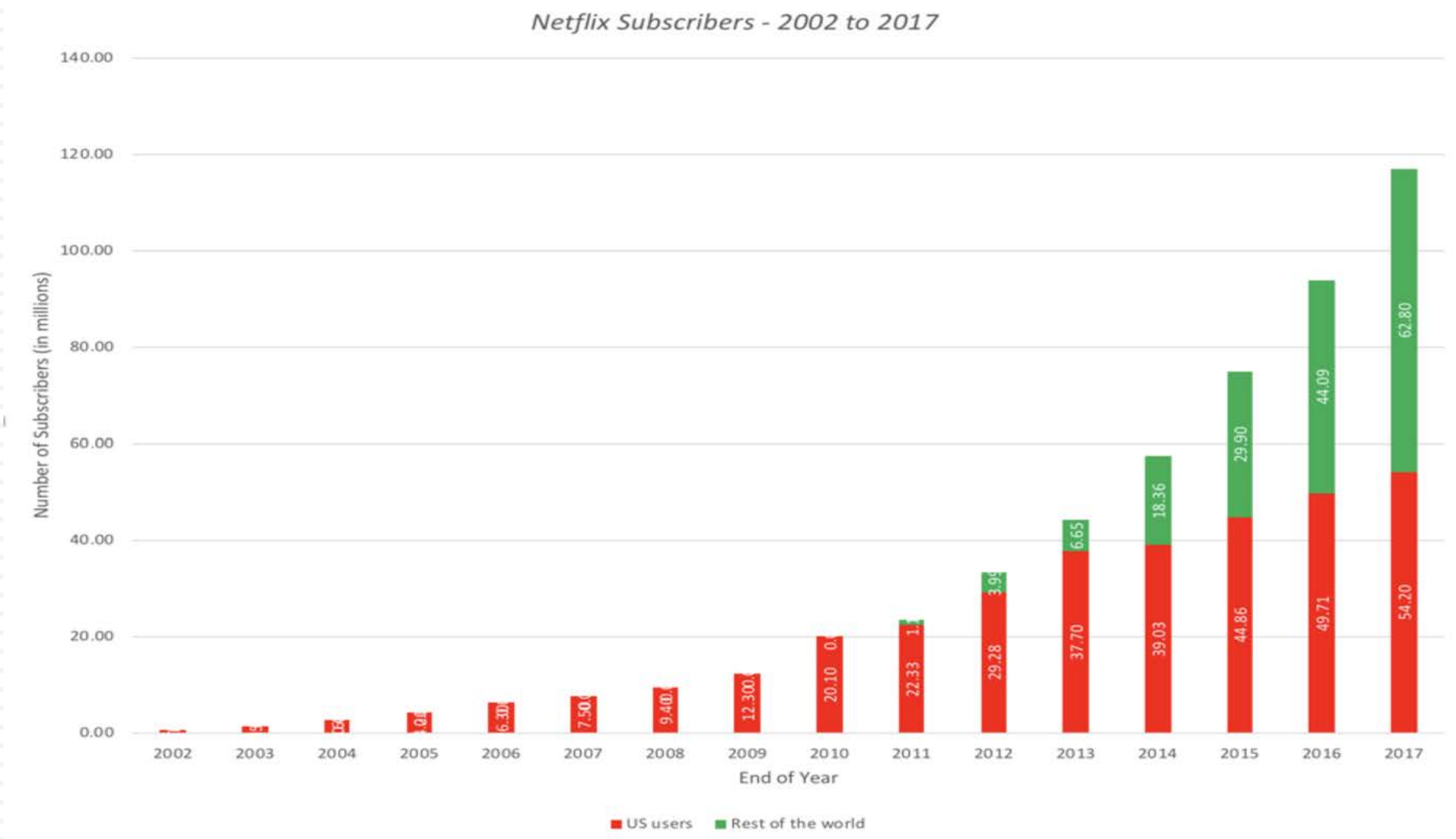
2. Much of it on original content

Company	Money Spent on Content	Company	Money Spent on Content
NBC Universal	$ 10.20	Amazon	$ 4.50
Fox	$ 8.00	CBS	$ 4.20
Time Warner	$ 8.00	Discovery	$ 2.20
Disney	$ 7.80	Apple	$ 1.00
Netflix	$ 6.30	Facebook	$ 1.00
Viacom	$ 5.40		

3. Adept at the expectations game..

- Netflix has managed to make the expectations game all about subscriber numbers, and every earnings report of the company is framed around these numbers, with less attention paid to content costs, churn rates and negative cash flows.
- After its most recent earnings report in January, the stock price surged, as the company reported an increase of 8.3 million in subscribers, well above expectations.
- The danger is that in the process of playing the user game, Netflix may dig itself into holes that it may not be able to get out of.

4. A Global Presence



Netflix: A Subscriber-based Valuation

- In a subscriber-based valuation, you value a company by first valuing existing subscribers, then the value added by new subscribers and close up by looking at the corporate cost drag.
- To do a subscriber-based valuation, you have to break costs down into
  a) costs for servicing existing subscribers
  b) the cost of acquiring new subscribers and
  c) a corporate cost that cannot be directly related to either servicing existing subscribers or getting new ones.

Step 1: A Cost Breakdown

NETFLIX: BREAKING DOWN EXPENSES							
Subscriber Statistics							
	2017	*2016*	*Net Change*	*Lost Subscribers*	*Gross Change*	*Cost of acquiring new subscribers*	
Number of Subscribers	117.60	93.80	23.80	7.04	30.84	Total User Acquisition Costs	$3,424.00
Revenue/Subscriber	$113.16	$103.32				Change in Subscribers in 2017	30.84
Content Cost Breakdown						Cost per new Subscriber	$ 111.04
Content Costs (Cash expense	$9,806.00		Subscribers (20%)	$ 1,532.00			
Content Costs Expensed	$ 7,660.00		Corporate (80%)	$ 6,128.00		*Cost of Servicing Existing Subscribers*	
Content Costs Capitalized	$2,146.00					Revenue/Subscriber in 2017	$113.16
Netflix: Operating Income in 2017						G&A Cost as % of Revenue	7.39%
Revenues	**$ 11,693.00**	As %				Subscriber-related Content Costs	$ 1,532.00
Marketing Costs	$ 1,278.00	10.93%					
G&A Costs	$ 864.00	7.39%				*Corporate Costs (unrelated to Subscribers)*	
Technology & Development	$ 1,053.00	9.01%				Technology & Development	$ 1,053.00
Content Costs Expensed	$ 7,660.00	65.51%				Corporate Content Costs	$ 6,128.00
Operating Profit	**$ 838.00**	7.17%					

Step 2: Value Existing Subscribers

Annual Renewal rate assumed to be 92.5%

Revenue/ Subscriber grows 5% a year

Service costs include G&A and 20% of expensed content, grows 2% a year

Netflix: Value of Existing Subscribers

Streaming technology expected life of 15 years.

	Base Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Membership Survival	1.0000	0.9250	0.8556	0.7915	0.7321	0.6772	0.6264	0.5794	0.5360	0.4958	0.4586	0.4242	0.3924	0.3629	0.3357	0.3105
Revenue/Subscriber	$ 113.16	$ 118.82	$ 124.76	$ 131.00	$ 137.55	$ 144.42	$ 151.65	$ 159.23	$ 167.19	$ 175.55	$ 184.33	$ 193.54	$ 203.22	$ 213.38	$ 224.05	$ 235.25
Service Cost/ Subscriber	$ 21.39	$ 21.82	$ 22.25	$ 22.70	$ 23.15	$ 23.62	$ 24.09	$ 24.57	$ 25.06	$ 25.56	$ 26.07	$ 26.60	$ 27.13	$ 27.67	$ 28.22	$ 28.79
Operating Profit/Loss per Subscriber	$ 91.77	$ 97.00	$ 102.51	$ 108.30	$ 114.39	$ 120.81	$ 127.56	$ 134.66	$ 142.13	$ 149.99	$ 158.25	$ 166.95	$ 176.09	$ 185.71	$ 195.83	$ 206.46
Tax rate	25.00%	25.000%	25.000%	25.000%	25.000%	25.000%	25.000%	25.000%	25.000%	25.000%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
After-tax Operating Income	$68.83	$67.29	$65.78	$64.28	$62.81	$61.36	$59.93	$58.52	$57.13	$55.77	$54.43	$53.11	$51.82	$50.55	$49.31	$48.09
Present Value (at 7.5% Cost of Capital)		$62.34	$56.45	$51.10	$46.25	$41.86	$37.87	$34.26	$30.98	$28.01	$25.33	$22.90	$20.69	$18.70	$16.90	$15.26
Life of subscriber =	15.00															
Value per Subscriber =	$508.89															
Number of Subscribers =	117.60															
Value of Existing Subscribers =	**$ 59,846**															

Discounted back at 7.95% cost of capital (Netflix cost of capital)

Step 3: Value New Subscribers

Netflix: Value of New Subscribers

Cost of Acquiring a New Subscriber	$ 111.01
Value per new user (in today's $) =	$397.88

Net Subscriber base increases 15%/ year in years 1-5

Net Subscriber base increases 10%/ year in years 6-10

	Base Year	1	2	3	4	5	6	7	8	9	10
Total Subscribers	117.60	135.24	155.53	178.85	205.68	236.54	260.19	286.21	314.83	346.31	380.94
New Subscribers	0.00	26.46	30.43	34.99	40.24	46.28	41.39	45.53	50.09	55.10	60.60
Value per Subscriber	$397.88	$405.84	$413.96	$422.24	$430.68	$439.30	$448.08	$457.04	$466.18	$475.51	$485.02
Value added by new Subscribers		$10,739	$12,596	$14,775	$17,332	$20,330	$18,548	$20,811	$23,349	$26,198	$29,394
Terminal Value (New Subscribers)											$31,674
Present Value		**$9,948**	**$10,809**	**$11,746**	**$12,763**	**$13,868**	**$11,721**	**$12,182**	**$12,662**	**$13,160**	**$28,418**
Value Added by New Users	**$137,276**										

Value of new subscriber expected to increase 2% a year

Discounted back at a cost of capital at 7.95%, Netflix cost of capital

Number of new subscribers expected to increase 1% a year in after year 10

Step 4: Value the Corporate Drag

Netflix: Cost of Corporate Drag

Technology & Development costs grow 5% a year

80% of Content Costs, grows 3% a year.

Global tax rate of 25%

	Base Year	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Technology & Development	$1,053	$1,106	$1,161	$1,219	$1,280	$1,344	$1,411	$1,482	$1,556	$1,634	$1,715
Content Costs	$6,128	$6,312	$6,501	$6,696	$6,897	$7,104	$7,317	$7,537	$7,763	$7,996	$8,236
After-tax Corporate Expenses		$5,563	$5,747	$5,936	$6,133	$6,336	$6,546	$6,764	$6,989	$7,222	$7,463
Terminal Value (Corporate Exp)											$147,467
PV of Corporate Expenses		$5,153	$4,931	$4,719	$4,516	$4,322	$4,137	$3,959	$3,790	$3,628	$72,096
Value Drag of Corporate Expenses	**$111,252**										

Discounted back at Netflix 7.95% cost of capital

Step 5: Complete the valuation

Valuing Netflix	
Value of Existing Subscribers	$59,845.86
Value of New Subscribers	$137,276.49
- PV of Corporate Expenses	$111,251.70
Value of Spotify Operating Assets	$85,870.65
+ Cash & Cross Holdings	$2,823.00
- Debt	$6,500.00
Value of Equity	**$82,193.65**
- Value of Equity Options	$ 4,978.00
Value of Equity in common stock	**$77,215.65**
Number of Shares	446.81
Value per Share	$ 172.82

The Value Driver: Content Cost Growth

Annual Growth Rate in Content Cost	Compounded Annual Growth Rate in Revenue (next 5 years)				
	5%	10%	15%	20%	25%
0%	$ 80.96	$ 142.82	$ 216.35	$ 303.17	$ 405.04
2%	$ 53.12	$ 114.98	$ 188.50	$ 275.32	$ 377.19
4%	$ 20.44	$ 82.30	$ 155.83	$ 242.65	$ 344.52
6%	$ (17.84)	$ 44.02	$ 117.55	$ 204.37	$ 306.24
8%	$ (62.60)	$ (0.74)	$ 72.79	$ 159.61	$ 261.48
10%	$ (114.84)	$ (52.98)	$ 20.54	$ 107.36	$ 209.23

My Investment Judgment

- A Game Changer: There is no doubt that Netflix has changed the way we watch television and the movies, and it is changing the movie/TV business in significant ways. By competing for talent in the content business, it is pushing up costs for its competitors and with its direct-to-streaming model, putting pressure on movie theaters and distribution.
- In a dangerous business: That said, the entertainment business remains a daunting one, because the talent is expensive and unpredictable, and egos run rampant. The history of newcomers who have come into this business with open wallets is that they leave with empty ones.
- The defining factor: For Netflix to escape this fate, it has to show discipline in controlling content costs, and until I see evidence that it is capable of this discipline, I will remain a subscriber, but not an investor in the company.

ALPHABET SOUP: MOSTLY GOOGLE, BUT LOTS OF BETS!

Aswath Damodaran

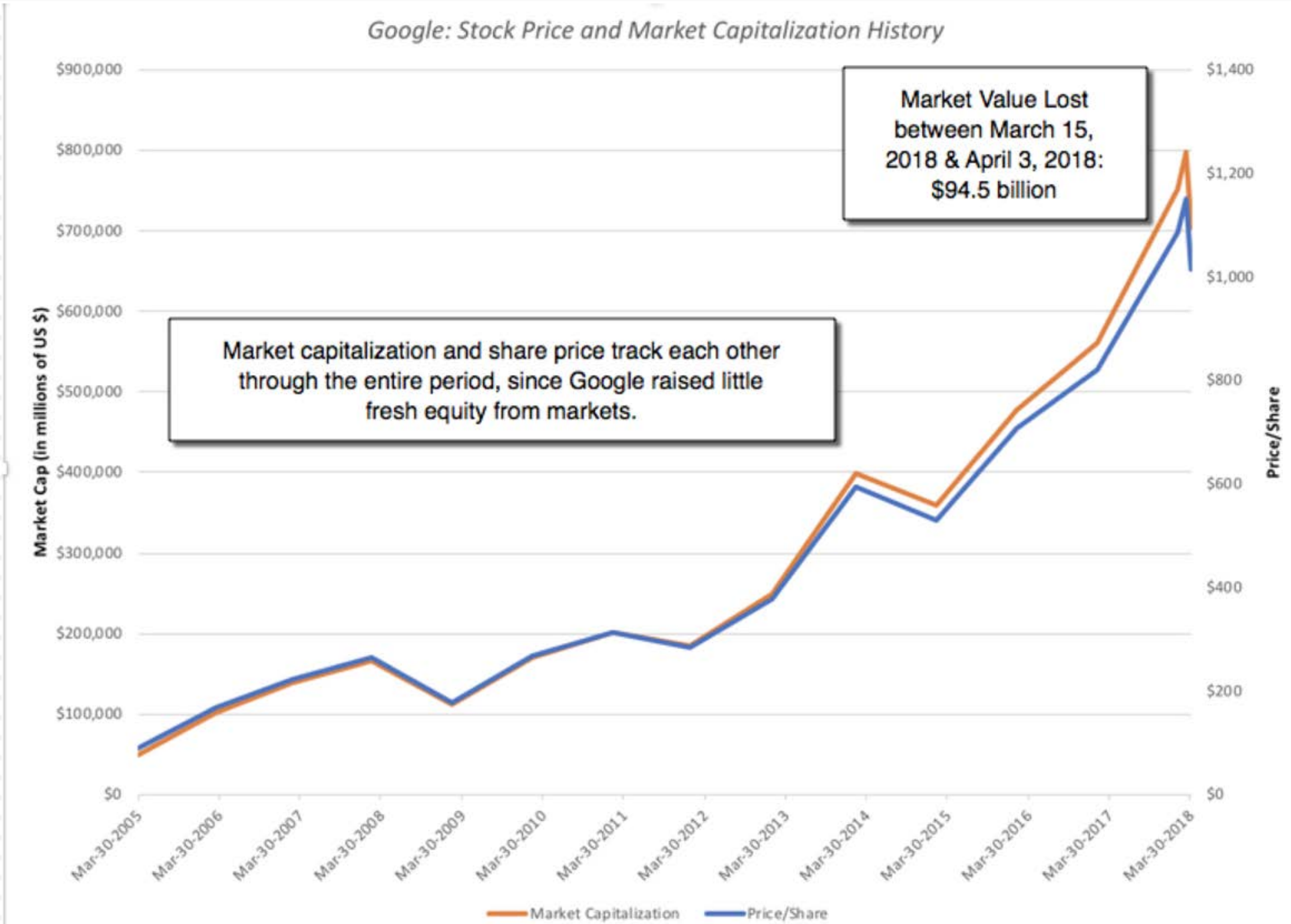
The One Number (Value Driver)

- In a typical intrinsic valuation, there are dozens of inputs that drive value but there is one variable, that more than any other, drives value and it is critical to identify that variable early in the valuation process for two reasons:

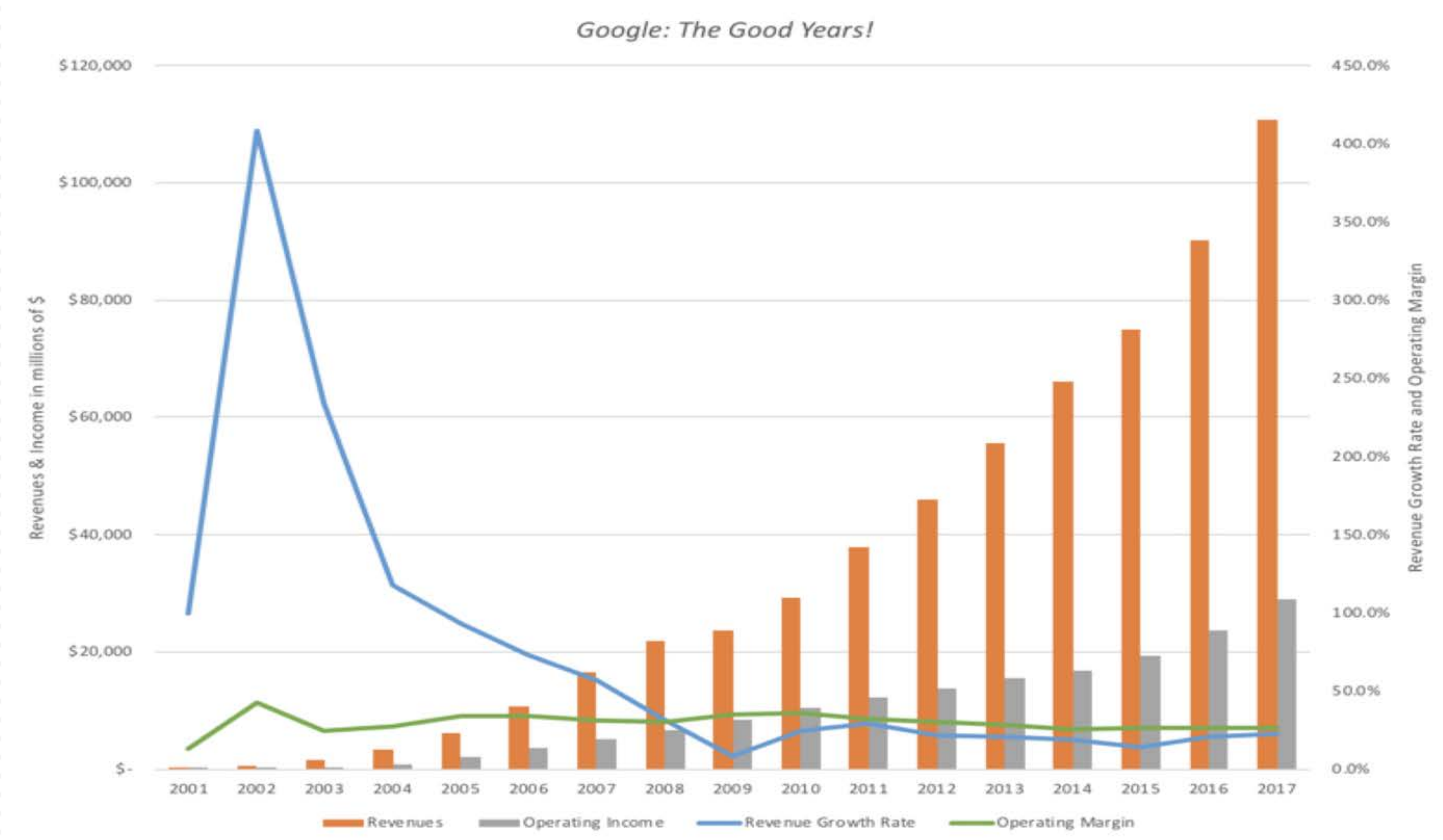
1. Information Focus: Knowing the key value driver allows you to focus your information collection around that variable, rather than get distracted by the other inputs into value.
2. Management Questions: If you have the opportunity to question management, your questions can then also be directed at the key variable and what management is doing to deliver on that variable.
3. Disclosure Tracking: Having a focus allows you to zero in on the parts of the earnings report that are most relevant to value.

- To find the value driver, you look for:
  - Big Value Effects: Changing your key driver variable should have large effects on the value that you estimate for a business.
  - Uncertainty about Input: If an input has large effects on value, but you feel confident about it, it is not a driver variable.

Google's Market History



Google's Operating History



The State of Play

1. Advertising Duopoly? Google and Facebook are converting online advertising and perhaps all of advertising into a duopoly. Each plays to different strengths and at least so far, they are getting revenues from other players, rather than each other. Google's market share in 2017 was 42.2%, and Facebook's market share was 20.9%.
2. Google is everywhere. It's core business is its search engine, but that is supplemented with Gmail, with more than a billion users, YouTube, which dominates the online video space and Android, the dominant smart phone operating system
3. Alphabet is still mostly advertising, very little other businesses.

Mostly Alpha, Very Little Bets

	2015		2016		2017	
Advertising - Search	$ 52,357	69.82%	$ 63,875	70.69%	$ 77,788	70.17%
Advertising - Other Google	$ 15,033	20.05%	$ 15,598	17.26%	$ 17,587	15.86%
Advertising - Total	**$ 67,390**	**89.87%**	**$ 79,473**	**87.95%**	**$ 95,375**	**86.04%**
Apps, Cloud and Hardware	$ 7,154	9.54%	$ 10,080	11.16%	$ 14,277	12.88%
Google Revenues	**$ 74,544**	**99.41%**	**$ 89,553**	**99.10%**	**$ 109,652**	**98.91%**
Other Bets Revenues	$ 445	0.59%	$ 809	0.90%	$ 1,203	1.09%
Alphabet Revenues	**$ 74,989**	**100.00%**	**$ 90,362**	**100.00%**	**$ 110,855**	**100.00%**

The Google Story

- In valuing Google, I will assume that it will continue to grow, but I set the revenue growth rate at 12% for the next five years, below the 15% growth rate registered in the last five, for two reasons.
  - The first is that digital advertising's rise has started to slow, simply because it is now such a large part of the overall advertising market.
  - The second is that data privacy restrictions, if restrictive, will take away one of Google's network benefits.
- I do think that the profitability of Google's businesses will stay intact over time, with operating margins staying at the 27.87% recorded in 2017.

Alphabet

The Story

Alphabet will continue to increase its market share of the advertising businesss and buld revenues, with little help in the near future from its other businesses. Its margins will stay high and the company's suite of products (Gmail, Android, Search) will allow it to retain a competitive edge, and the company will also be able to use YouTube's strong user base to not only add to its advertising revenues but build a subscription model to compete with streaming companies. Over time, one or more of its bets (Nest, Waymo, Verily) will pay off, allowing for a growth boost.

The Assumptions

	Base year	*Years 1-5*	*Years 6-10*		*After year 10*	*Link to story*
Revenues (a)	$ 110,855	12.00% →	2.75%		2.75%	Digital ad market growth slows and data privacy laws dull Google's edge.
Operating margin (b)	27.87%	27.87% →	27.87%		27.87%	Business stays a low cost, high margin one.
Tax rate	24.30%	24.30% →	25.00%		25.00%	Increases slightly to global average.
Reinvestment (c)		Sales to capital ratio	2.03	RIR =	22.92%	Reinvestment will be in technology and in occassional acquisitons.
Return on capital	25.36%	Marginal ROIC =	56.59%		12.00%	Strong competitive advantages.
Cost of capital (d)		8.26% →	8.00%		8.00%	Ad business is sensitive to economy.

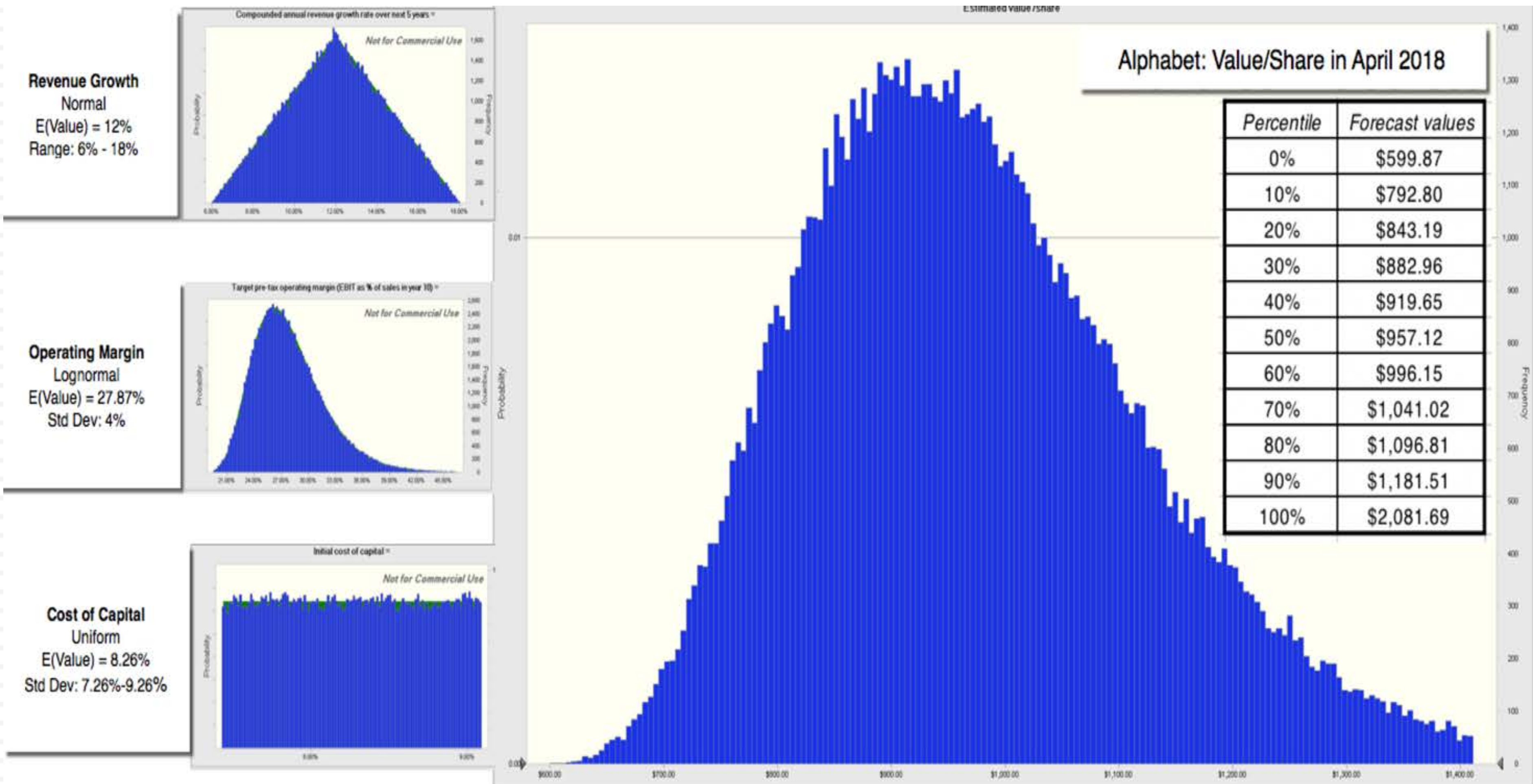
The Cash Flows

	Revenues	*Operating Margin*	*EBIT*	*EBIT (1-t)*	*Reinvestment*	*FCFF*
1	$ 124,158	27.87%	$ 34,606	$ 26,196	$ 6,552	$ 19,644
2	$ 139,057	27.87%	$ 38,758	$ 29,340	$ 7,338	$ 22,002
3	$ 155,743	27.87%	$ 43,409	$ 32,861	$ 8,219	$ 24,642
4	$ 174,432	27.87%	$ 48,618	$ 36,804	$ 9,205	$ 27,599
5	$ 195,364	27.87%	$ 54,452	$ 41,220	$ 10,310	$ 30,911
6	$ 215,194	27.87%	$ 59,979	$ 45,320	$ 9,767	$ 35,554
7	$ 233,055	27.87%	$ 64,958	$ 48,991	$ 8,797	$ 40,194
8	$ 248,087	27.87%	$ 69,147	$ 52,054	$ 7,404	$ 44,650
9	$ 259,499	27.87%	$ 72,328	$ 54,347	$ 5,621	$ 48,727
10	$ 266,635	27.87%	$ 74,317	$ 55,738	$ 3,515	$ 52,223
Terminal year	$ 273,968	27.87%	$ 76,361	$ 57,271	$ 13,125	$ 44,146

The Value

Terminal value	$ 840,879	
PV(Terminal value)	$ 382,994	
PV (CF over next 10 years)	$ 213,894	
Value of operating assets =	$ 596,889	
Adjustment for distress	$ -	Probability of failure = 0.00%
- Debt & Mnority Interests	$ 11,590	
+ Cash & Other Non-operating assets	$ 95,871	Reduced by $ 9 billion for untrapping cash; Google set aside $9.9 billion in 4Q, 2017
Value of equity	$ 681,170	
- Value of equity options	$ -	
Number of shares	703.00	
Value per share	$ 968.95	Stock was trading at = $1,030.00

Uncertainty Incorporated…



Google’s Value Driver

		CAGR in Revenues (next 5 years)				
		4%	8%	12%	16%	20%
Pre-tax Operating Margin	20%	$ 557.53	$ 646.39	$ 755.61	$ 889.27	$ 1,052.10
	25%	$ 640.09	$ 752.51	$ 891.10	$ 1,061.11	$ 1,268.68
	30%	$ 722.66	$ 858.64	$ 1,026.58	$ 1,232.94	$ 1,485.28
	35%	$ 805.22	$ 964.76	$ 1,162.08	$ 1,404.78	$ 1,701.83
	40%	$ 887.78	$ 1,070.89	$ 1,297.55	$ 1,576.61	$ 1,918.41

In my judgment, **Alphabet's bigger challenge is revenue growth**, not margins, and it is that input that will cause its valuation to rise or fall.

The Bets – Three Perspectives

1. <u>Founder Playthings</u>: If you buy into this this view, not only will these businesses not add value to Alphabet, they will continue to drain value from the company, because of the spending that goes with them.
2. <u>Early Life, Big Market Businesses</u>: Google bets should be viewed more as start-ups in potentially big markets, with industry-leading innovation. You could build business models for Waymo, Verily, Nest and Google Fiber that would resemble the models used to value young start-ups, with a bonus of access to Alphabet capital to survive for long periods, and add this value to the advertising business that remains Google's cash cow.
3. <u>Real Options</u>: While the bet businesses represent potential, that potential is not only far in the future, but may never materialize, either because of the evolution of technology, regulation or market demand. You can argue that the Google bets are *out-of-the-money options*, and since the value of an option is determined by potential revenues and uncertainty about those revenues, they are valuable, even though only one of the bets may pay off and the others will have to be written off.

My Investment Judgment

- Playthings? By leaving the margin at existing levels; remember that the operating margin of 27.87% is after the company's spending on its bet businesses. By not explicitly giving credit for the revenues that the bet businesses will create, it may seem like I am taking the cynical view of these businesses as playthings, but I am not.
- My bet view: That said, I do think that trying to build business models from scratch, to value Waymo, Verily and Nest is difficult to do right now, given that the markets that they are going after all still in flux. I believe that these investments are options and valuable ones at that, but I will make that claim based upon their underlying characteristics (high variance, big markets) rather than with explicit option pricing models.
- My investment judgment: My intrinsic valuation for Alphabet is $968, within shouting distance of the company's stock price, and I believe that there is enough option value in the bets, that if the stock is fairly or even under valued at its current price. While I am not yet inclined to buy, I have a limit buy order on the stock, that I had initially set at $950, but have moved up to $1000 after my bet assessment.

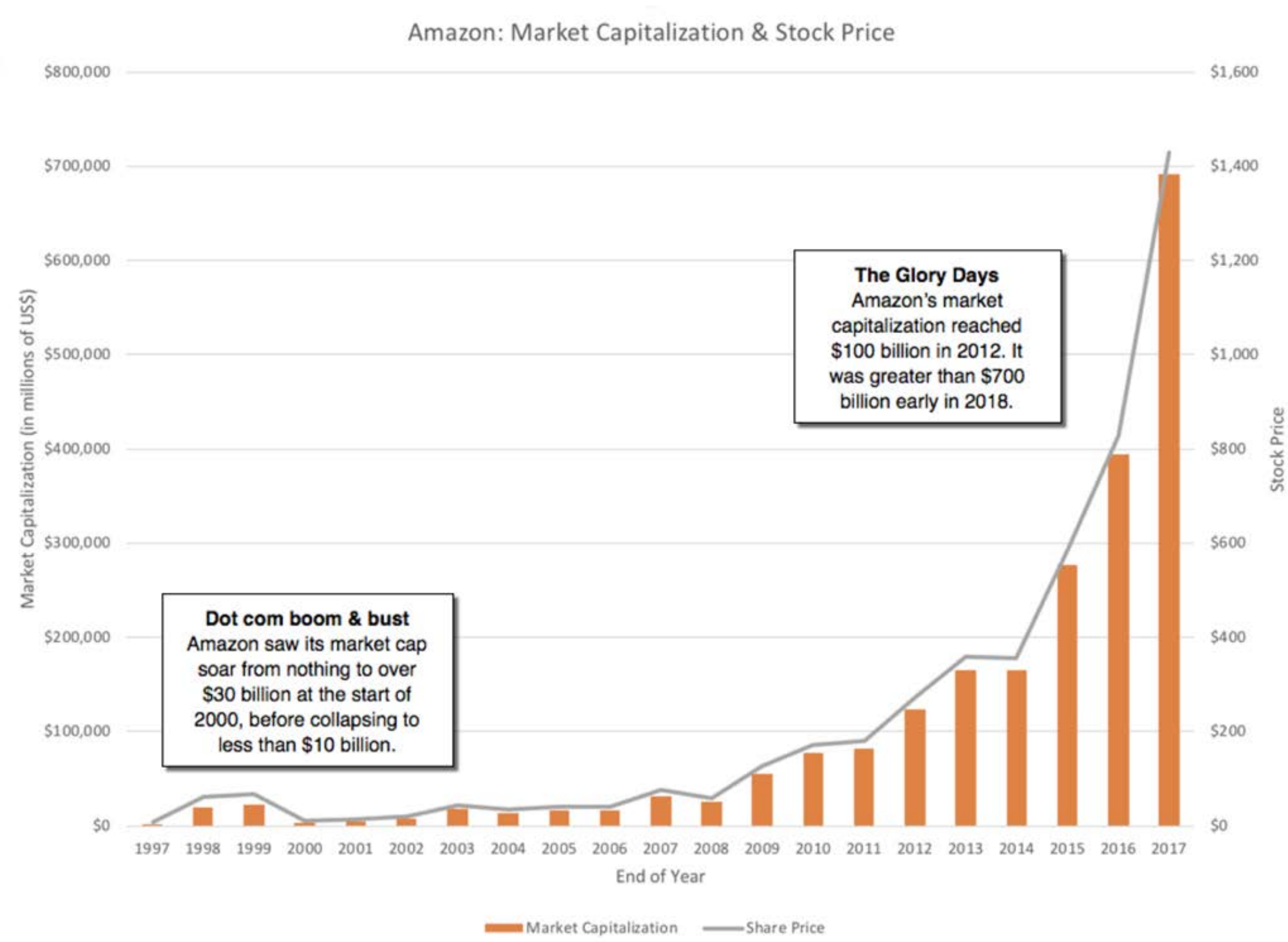
AMAZON: GLIMPSES OF SHOELESS JOE?

Aswath Damodaran

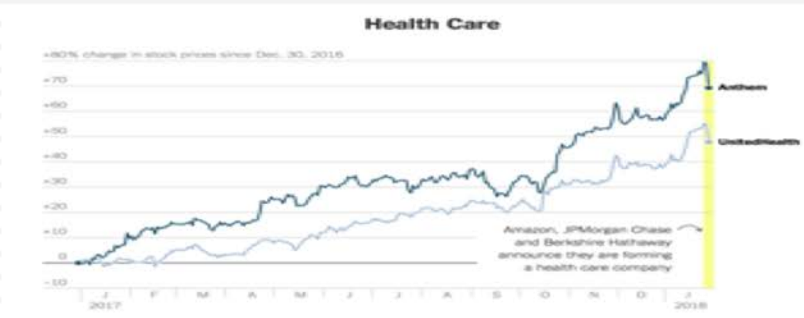
Revisiting my (Amazon) Past

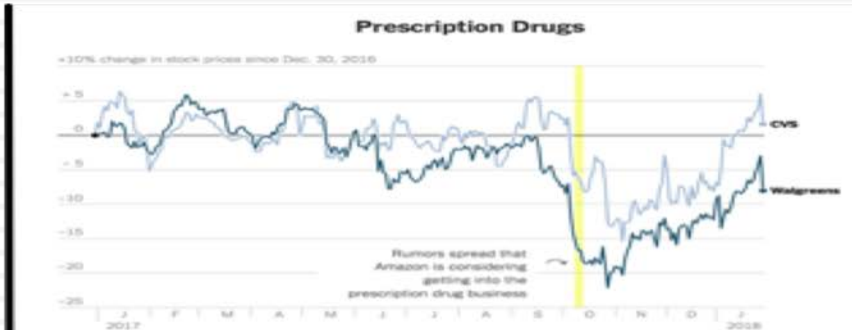
- Learning wheels: I valued Amazon for the first time in 1998, as an online book retailer, and much of what I know about valuing young companies today came from the struggles I went through.
- Field of Dreams Story: When I was put off balance by an Amazon product, service or corporate announcement, I re-read Jeff Bezos' letter to Amazon shareholders from 1997, because it helped me understand (though not always agree with) how Amazon views the business world. In that letter, Bezos laid out what I called the *Field of Dreams* story, telling his stockholders that if Amazon built it (revenues), they (the profits and cash flows) would come.
- My Track Record: I have valued Amazon about once a year every year over its existence, and I have bought Amazon four times and sold it four times in that period. That said, there are two confessions that I have to make.
  - First, I have not owned Amazon since 2012, and have thus missed out on its bull run since then.
  - Second, through all of this time, I have consistently under estimated not only the innovative genius of this company but also its patience.

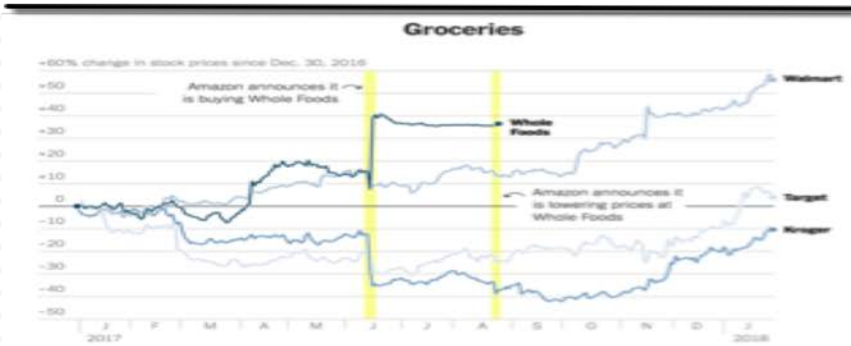
The Market Cap Rise

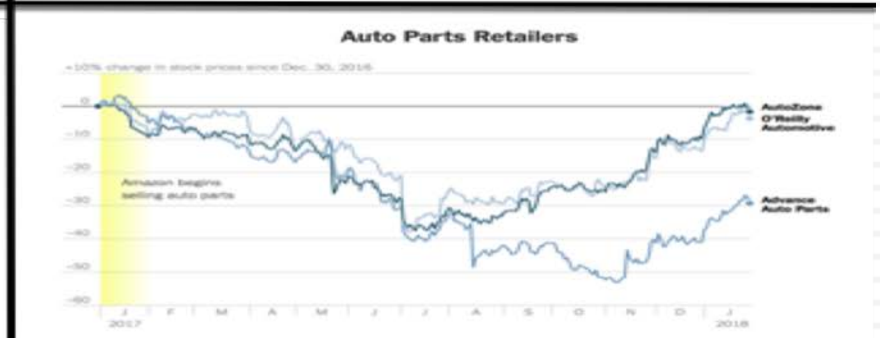


And the Pain in its wake..

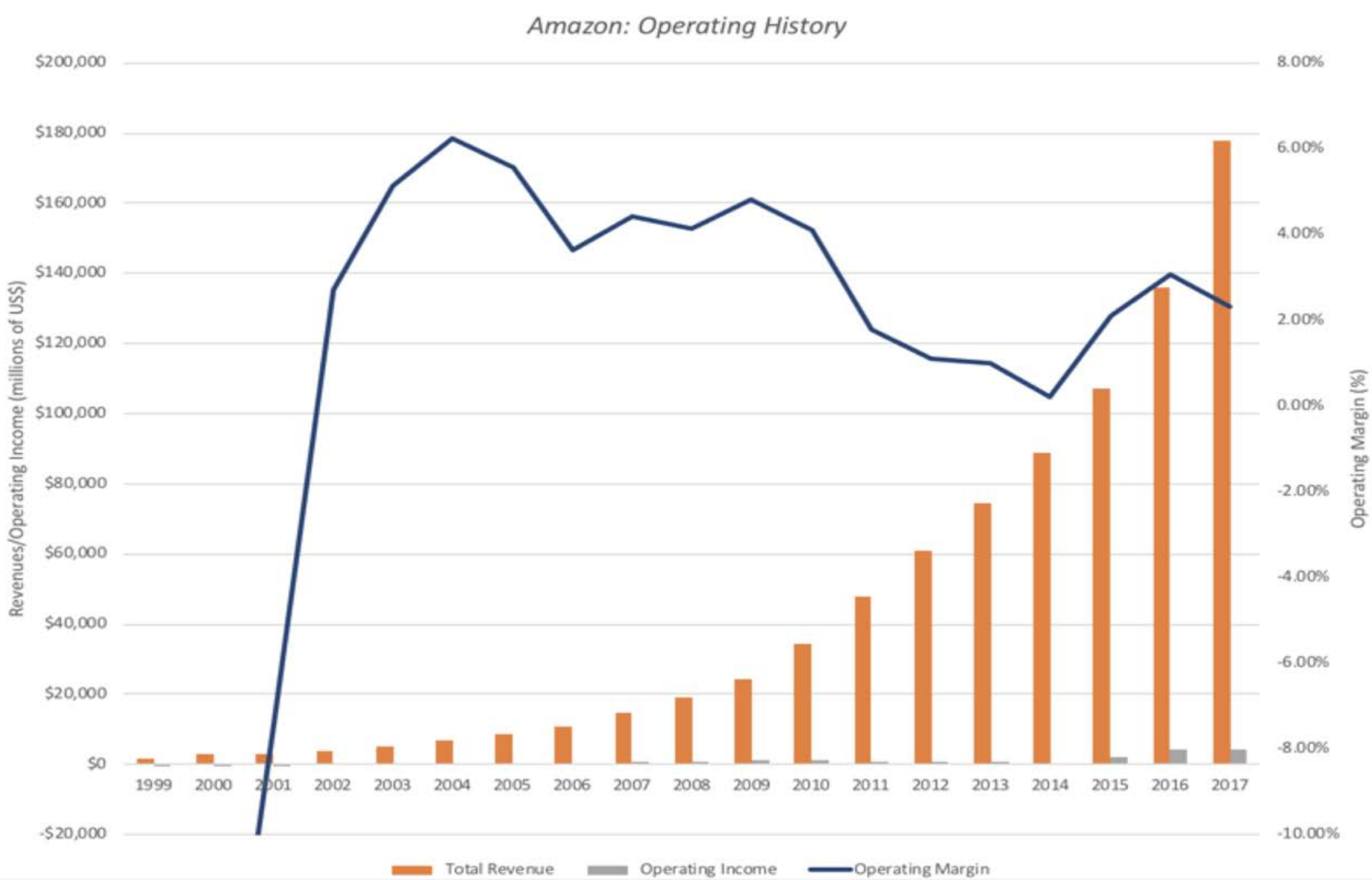






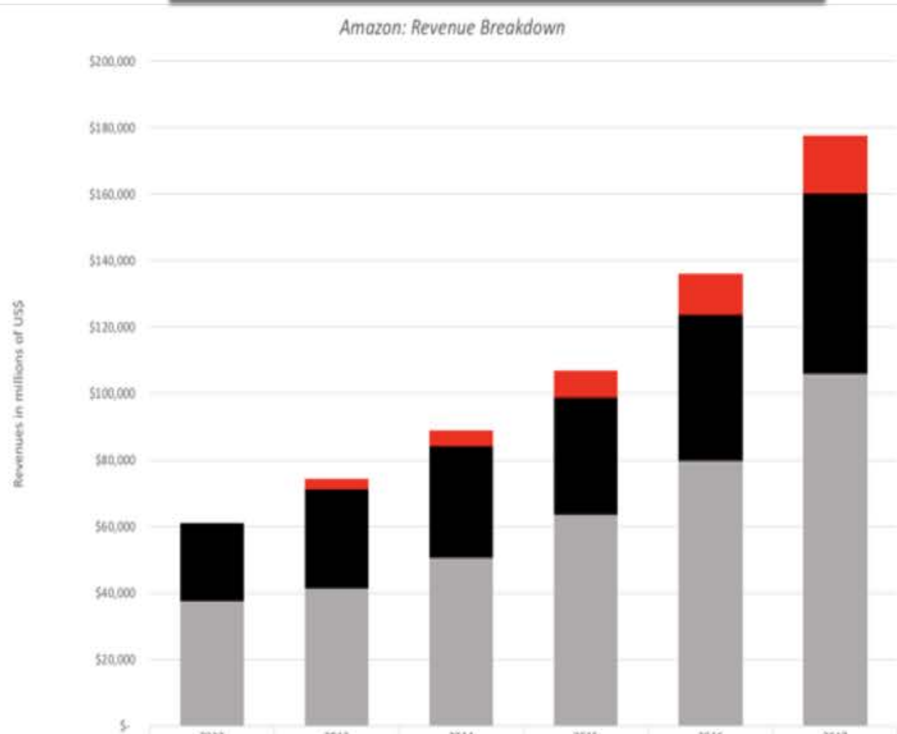


Operating History



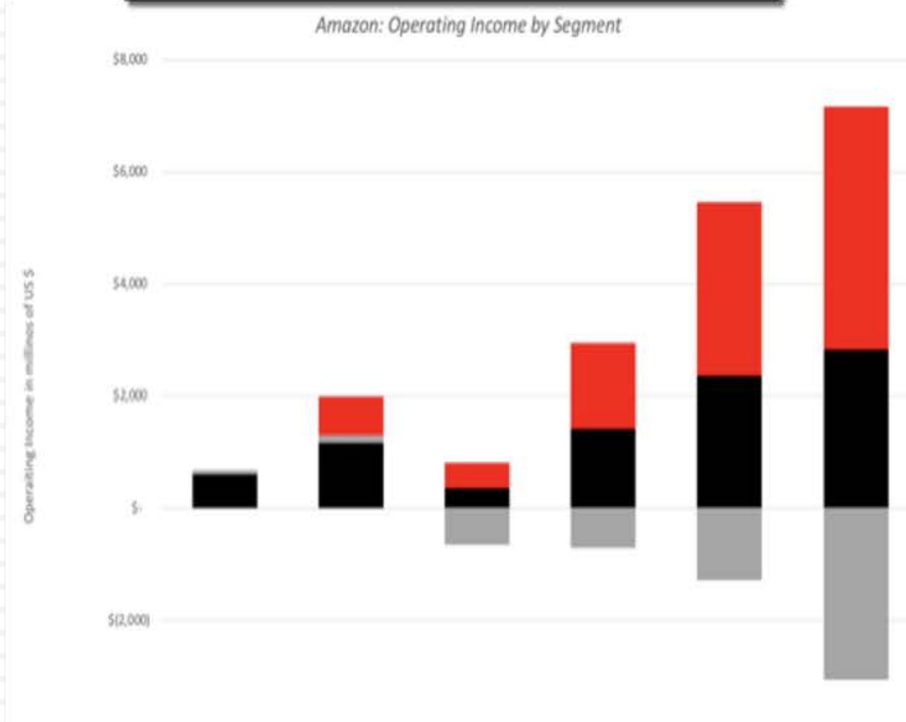
The Segment Breakdown

Revenue Breakdown



	2012	2013	2014	2015	2016	2017
AWS	$-	$3,108	$4,644	$7,880	$12,219	$17,459
Retail & Media: Foreign	$23,561	$29,934	$33,510	$35,418	$43,983	$54,297
Retaill & Media: US	$37,532	$41,410	$50,834	$63,708	$79,785	$106,110

Operating Income Breakdown



	2012	2013	2014	2015	2016	2017
AWS	$-	$673	$458	$1,507	$3,108	$4,331
Retail & Media: Foreign	$70	$154	$(640)	$(699)	$(1,283)	$(3,062)
Retaill & Media: US	$606	$1,166	$360	$1,425	$2,361	$2,837

The Costs for Future Growth

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Revenue	$10,711	$14,835	$19,166	$24,509	$34,204	$48,077	$61,093	$74,452	$88,988	$107,006	$135,987	$177,866
Operating Income	$ 389	$ 655	$ 789	$ 1,180	$ 1,406	$ 862	$ 676	$ 745	$ 178	$ 2,233	$ 4,186	$ 4,106
Techn oology & Content	$ 662	$ 818	$ 1,033	$ 1,240	$ 1,734	$ 2,909	$ 4,564	$ 6,565	$ 9,275	$ 12,540	$ 16,085	$ 22,620
Shipping Revenues	$ 567	$ 740	$ 835	$ 924	$ 1,193	$ 1,552	$ 2,280	$ 3,097	$ 4,486	$ 6,520	$ 8,976	$ 11,740
Shipping Costs	$ 884	$ 1,174	$ 1,465	$ 1,773	$ 2,579	$ 3,989	$ 5,134	$ 6,635	$ 8,709	$ 11,539	$ 16,167	$ 21,700
Net Shipping Costs	$ 317	$ 434	$ 630	$ 849	$ 1,386	$ 2,437	$ 2,854	$ 3,538	$ 4,223	$ 5,019	$ 7,191	$ 9,960
As % of Revenues	2.96%	2.93%	3.29%	3.46%	4.05%	5.07%	4.67%	4.75%	4.75%	4.69%	5.29%	5.60%
Techn oology & Content	$ 662	$ 818	$ 1,033	$ 1,240	$ 1,734	$ 2,909	$ 4,564	$ 6,565	$ 9,275	$ 12,540	$ 16,085	$ 22,620
As % of Revenues	6.18%	5.51%	5.39%	5.06%	5.07%	6.05%	7.47%	8.82%	10.42%	11.72%	11.83%	12.72%
Unadjusted Operating Margin	**3.63%**	**4.42%**	**4.12%**	**4.81%**	**4.11%**	**1.79%**	**1.11%**	**1.00%**	**0.20%**	**2.09%**	**3.08%**	**2.31%**
Adjusted Operating Margin	**12.77%**	**12.85%**	**12.79%**	**13.34%**	**13.23%**	**12.91%**	**13.25%**	**14.57%**	**15.37%**	**18.50%**	**20.19%**	**20.63%**

Breaking Down Amazon

	Amazon Retail/Media	AWS	Amazon Prime	Amazon (Total)	Basis
Revenues	$ 99,707	$ 17,459	$ 60,700	$ 177,866	Prime members generate $600 million more in revenues annually + $9700 in subscription fees (10K)
Cost of Goods Sold	$ 69,577	$ -	$ 42,357	$ 111,934	Allocated based upon revenues to Amazon Retail/Media and Prime
Technology & Content	$ 5,900	$ 13,128	$ 3,592	$ 22,620	Amazon reported number for AWS. Balance allocated based upon revenues
Net Shipping Cost	$ -	$ -	$ 9,960	$ 9,960	Entirely to Amazon Prime
Other Operating Expenses	$ 18,179	$ -	$ 11,067	$ 29,246	Allocated based upon revenues to Amazon Retail/Media and Prime
Operating Income	**$ 6,051**	**$ 4,331**	**$ (6,276)**	**$ 4,106**	
Operating Margin	**6.07%**	**24.81%**	**-10.34%**	**2.31%**	
Operating Margin before tech/content	11.99%		-4.42%	15.03%	

Valuing Amazon

- In my prior iterations, I tried to value Amazon as a consolidated company, arguing that it was predominantly a retail company with some media businesses.
- The growth of AWS and the substantial spending on Amazon Prime has led me to conclude that a more prudent path is to value Amazon in pieces, with Amazon Retail/Media, AWS and Amazon Prime, each considered separately.
- To do that, I have to break down the company numbers into its parts and make separate assumptions about cash flows, growth and risk with each part.

Amazon Retail

Shoeless Joe is here!

Amazon will expand its reach in the retail and media business, both in the US and abroad, focused on revenue growth. It's margins will continue to improve as competition thins and economies of scale kick in.

The Assumptions

	Base year	*Years 1-5*	*Years 6-10*		*After year 10*	*Link to story*
Revenues (a)	$ 99,707	15.00% →	3.00%		3.00%	Expanding geographically and into new areas of retail and media
Operating margin (b)	8.60%	8.60% →	12.00%		12.00%	Economies of scale and less competition increase margins
Tax rate	20.20%	20.20% →	25.00%		25.00%	Converging on a global tax rate of 25%
Reinvestment (c)		Sales to capital ratio 4.00		RIR =	25.00%	Big payoffs from investments in distribution and logistics.
Return on capital	0.00%	Marginal ROIC =			12.00%	The last man standing...
Cost of capital (d)		7.90% →	7.50%		7.50%	Cost of capital, based upon retail and media businesses

The Cash Flows

	Revenues	*Operating Margin*	*EBIT*	*EBIT (1-t)*	*Reinvestment*	*FCFF*
1	$ 114,663	8.94%	$ 10,256	$ 8,184	$ 3,739	$ 4,445
2	$ 131,863	9.28%	$ 12,242	$ 9,768	$ 4,300	$ 5,468
3	$ 151,642	9.62%	$ 14,593	$ 11,644	$ 4,945	$ 6,700
4	$ 174,388	9.96%	$ 17,374	$ 13,864	$ 5,687	$ 8,177
5	$ 200,546	10.30%	$ 20,661	$ 16,486	$ 6,540	$ 9,947
6	$ 225,815	10.64%	$ 24,031	$ 18,945	$ 6,317	$ 12,628
7	$ 248,848	10.98%	$ 27,327	$ 21,281	$ 5,758	$ 15,523
8	$ 268,259	11.32%	$ 30,369	$ 23,360	$ 4,853	$ 18,507
9	$ 282,745	11.66%	$ 32,969	$ 25,043	$ 3,621	$ 21,422
10	$ 291,227	12.00%	$ 34,947	$ 26,210	$ 2,121	$ 24,090
Terminal year	$ 299,964	12.00%	$ 35,996	$ 26,997	$ 6,749	$ 20,248

The Value

Terminal value	$ 449,946
PV(Terminal value)	$ 212,679
PV (CF over next 10 years)	$ 76,513
Value of operating assets =	$ 289,192

AWS

Cloud Profits

AWS has been a high growth, high margin business for Amazon, delivering all or most of its profits in the last two years. That said, it is also a business where Amazon faces strong and deep-pocketed competitors in Google and Microsoft, and both revenue growth and margins will decrease going forward.

The Assumptions

	Base year	*Years 1-5*	*Years 6-10*		*After year 10*	*Link to story*
Revenues (a)	$ 17,459	25.00%	3.00%		3.00%	High growth business
Operating margin (b)	24.81%	24.81%	20.00%		20.00%	Strong and deep pocketed competitors in Google and Microsoft will push margins down.
Tax rate	20.20%	20.20%	25.00%		25.00%	Converging on a global tax rate of 25%
Reinvestment (c)		Sales to capital ratio	10.00	RIR =	40.00%	Main capital expenditure is in technology & content and most of it is expensed.
Return on capital	12.47%	Marginal ROIC =	188.79%		7.50%	Will converge to commodity business where excess returns are zero.
Cost of capital (d)		8.35%	7.50%		7.50%	Cost of capital based upon computer services business.

The Cash Flows

	Revenues	*Operating Margin*	*EBIT*	*EBIT (1-t)*	*Reinvestment*	*FCFF*
1	$ 21,824	23.85%	$ 5,204	$ 4,152	$ 436	$ 3,716
2	$ 27,280	22.88%	$ 6,243	$ 4,981	$ 546	$ 4,436
3	$ 34,100	21.92%	$ 7,476	$ 5,965	$ 682	$ 5,283
4	$ 42,625	20.96%	$ 8,935	$ 7,129	$ 852	$ 6,277
5	$ 53,281	20.00%	$ 10,656	$ 8,503	$ 1,066	$ 7,437
6	$ 64,256	20.00%	$ 12,851	$ 10,131	$ 1,098	$ 9,034
7	$ 74,666	20.00%	$ 14,933	$ 11,630	$ 1,041	$ 10,589
8	$ 83,477	20.00%	$ 16,695	$ 12,842	$ 881	$ 11,961
9	$ 89,654	20.00%	$ 17,931	$ 13,620	$ 618	$ 13,002
10	$ 92,343	20.00%	$ 18,469	$ 13,852	$ 269	$ 13,583
Terminal year	$ 95,114	20.00%	$ 19,023	$ 14,267	$ 5,707	$ 8,560

The Value

Terminal value	$ 190,228
PV(Terminal value)	$ 87,336
PV (CF over next 10 years)	$ 51,564
Value of operating assets =	$ 138,900

Valuing Amazon Prime (April 2018)

Revenues/Subscriber grow 10% a year
Shipping Costs grow 3% a year

Continues to year 20

Value of Existing Users											
	Base Year	1	2	3	4	5	6	7	8	9	10
Life Indicator		1	1	1	1	1	1	1	1	1	1
Membership Survival	1.0000	0.9600	0.9216	0.8847	0.8493	0.8154	0.7828	0.7514	0.7214	0.6925	0.6648
Growth rate in incremental revenue		10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	8.00%	6.00%	4.00%	2.00%
Incremental Revenue/Member	$ 600.00	$ 660.00	$ 726.00	$ 798.60	$ 878.46	$ 966.31	$ 1,062.94	$ 1,147.97	$ 1,216.85	$ 1,265.52	$ 1,290.83
Operating Margin (pre-shipping)	11.99%	12.19%	12.39%	12.60%	12.80%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%
Operating Income on Incremental Sal	$ 71.94	$80.47	$89.98	$100.59	$112.43	$125.62	$138.18	$149.24	$158.19	$164.52	$167.81
Prime Membership Charge	$ 97.00	$ 98.94	$ 100.92	$ 102.94	$ 105.00	$ 107.10	$ 109.24	$ 111.42	$ 113.65	$ 115.92	$ 118.24
Revenue/Prime Member	$ 168.94	$ 179.41	$ 190.90	$ 203.53	$ 217.42	$ 232.72	$ 247.42	$ 260.66	$ 271.84	$ 280.44	$ 286.05
Service Cost/ Prime Member	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Shipping Cost/ Prime Member	$ 117.18	$120.69	$124.31	$128.04	$131.88	$135.84	$139.91	$142.71	$145.57	$148.48	$151.45
Operating Profit/Loss per Member	$ 51.76	$ 58.72	$ 66.59	$ 75.49	$ 85.54	$ 96.88	$ 107.50	$ 117.95	$ 126.27	$ 131.96	$ 134.60
Tax rate	20.00%	20.500%	21.000%	21.500%	22.000%	22.500%	23.000%	23.500%	24.000%	24.500%	25.00%
After-tax Operating Income	$41.41	$44.81	$48.48	$52.43	$56.67	$61.22	$64.80	$67.80	$69.23	$69.00	$67.12
Present Value (at Cost of Capital)		$41.53	$41.64	$41.73	$41.81	$41.86	$41.06	$39.82	$37.68	$34.81	$31.38
Life of user =	20.00										
Value per Prime Member =	$584.53										
Number of Prime Members =	100.00										
Value of Prime Members =	**$ 58,453.09**										

Cost of capital of 7.90%, Amazon's retail/media cost of capital used.

Value of New Users											
Cost of acquiring new Member =	$ 100.00										
Value per new user (in today's $) =	$484.53										
	Base Year	1	2	3	4	5	6	7	8	9	10
Total Prime Members	100.00	112.00	125.44	140.49	157.35	176.23	183.28	190.61	198.24	206.17	214.42
New Members	0.00	16.00	17.92	20.07	22.48	25.18	14.10	14.66	15.25	15.86	16.49
Value per new Member	$484.53	$494.22	$504.11	$514.19	$524.47	$534.96	$545.66	$556.57	$567.71	$579.06	$590.64
Value added by new Members		$7,907.54	$9,033.58	$10,319.96	$11,789.52	$13,468.35	$7,693.12	$8,160.86	$8,657.04	$9,183.39	$9,741.74
Terminal Value (New Members)											$79,087.05
Present Value		$ 7,328.59	$ 7,759.20	$ 8,215.12	$ 8,697.82	$ 9,208.89	$ 4,874.99	$ 4,792.76	$ 4,711.92	$ 4,632.44	$ 41,527.84
Value Added by New Users	**$ 101,749.57**										

Media costs allocated to Prime based upon revenues & grow 4% pa

Value Drag of Corporate Expenses (Cost)											
Total Media & Content Costs	$ 22,620.00										
Amazon Prime Share of Expenses	15.88%										
Corporate Expenses	$3,592.00	$4,023.04	$4,505.80	$5,046.50	$5,652.08	$6,330.33	$6,583.54	$6,846.89	$7,120.76	$7,405.59	$7,701.82
After-tax Corporate Expenses		$ 3,198.32	$ 3,559.59	$ 3,961.50	$ 4,408.62	$ 4,906.01	$ 5,069.33	$ 5,237.87	$ 5,411.78	$ 5,591.22	$ 5,776.36
Terminal Value (Corporate Exp)											$ 121,421.49
PV of Corporate Expenses		$2,964.15	$3,057.43	$3,153.52	$3,252.50	$3,354.45	$3,212.34	$3,076.13	$2,945.56	$2,820.42	$59,465.53
Value Drag of Corporate Expenses	**$87,302.03**										

Valuing Amazon Prime	
Value of Existing Members	$58,453.09
Value of New Members	$101,749.57
- PV of Corporate Expenses	$87,302.03
Value of Prime Membership	$72,900.63

Amazon's Value per Share

	Value as of April 25, 2018
Amazon Retail/Media	$ 289,191.61
AWS	$ 138,899.69
Amazon Prime	$ 72,900.63
Value of Operating Assets	$ 500,991.93
+ Cash	$ 30,986.00
- Debt	$ 42,730.42
Value of Equity	$ 489,247.51
/ Number of Shares	480.00
Value per Share	**$ 1,019.27**

My Investment Judgment

- Not for me, but who knows for you? At $1,460/share, the stock is clearly out of my reach. Given that I have not been able to justify buying the stock at any time in the last five years, as it rose from $250/share to $1500, my suggestion is that you do you don't take my word and make your own judgment.
- Good companies, Bad investments: There are good companies that can be bad investments and bad companies that can be terrific investments, as I noted in this post. Amazon has fallen into the first category for much of the last five years and continues to do so, at today's market price.
- Wait: But good things come to those who wait and I know that there be a time and a price at which it will be back in my portfolio.