



Well, that was fast. I published an [article](#) on Monday wondering about Facebook's valuation, and on Thursday Facebook dropped around 20% in the wake of its Q2 earnings report, putting in the worst day for a stock in market history on value lost (nearly \$120 billion) basis. The report showed robust 42% revenue growth, but that number was below expectations, and, more importantly, the online social media firm warned about future revenue weakness. Facebook will have to hire more personnel to police the "bots" posting on its site, and that will cut into the firm's prodigious margins. In my article, I reverse engineered a discounted cash flow model to show that the market was assuming 6% free cash flow growth and more than 12% revenue growth for the next decade. Today's market price for Facebook assumes a 4% FCF growth rate – a 33% reduction from yesterday's price. So how do other tech giants look these days? Are they all poised to tumble like Facebook? Some are and some aren't.

# Alphabet

Alphabet is often compared to Facebook. Both companies are in the online advertising business along with the ancillary business of finding out as much information about, and invading the private lives of, consumers as much as possible. It turns out, the market is making almost the same set of assumptions it was about Facebook before its drop. The free cash flow growth rate that allows a model to arrive at today's current stock price as the fair value for the business is 6.5% -- just a bit over the 6% rate that Facebook's stock price assumed before it's crash.

	Alphabet FCF (in billions), assuming 6.5% annualized growth	Present value (in billions), applying a 10% Discount Rate			
2017	\$23.91				
2018	\$25.46	\$23.15			
2019	\$27.12	\$22.41			
2020	\$28.88	\$21.70			
2021	\$30.76	\$21.01			
2022	\$32.76	\$20.34			
2023	\$34.89	\$19.69			
2024	\$37.16	\$19.07			
2025	\$39.57	\$18.46			
2026	\$42.14	\$17.87			
2027	\$44.88	\$17.30			
		2018-2027 Cash Flows		Terminal Value	Total Present Value
		\$201.01		\$660.41	\$861.42

As I said in my previous article, I haven't studied the online advertising market, so I don't have an opinion on whether Alphabet can grow this much. Alphabet turns a little more than 20% of its revenue into free cash flow. That makes it around half as efficient in this regard as Facebook, though Facebook's ratio may well shrink in the future based on its need to pay more people to police its platform. Alphabet is involved in more diverse array of business than Facebook is. Its Android operating system is in many of the world's mobile phones. Its Internet browser, Chrome, is

popular, and its subsidiary Waymo, is involved in the development of self-driving cars, though Facebook has also made efforts at driverless cars. Growth isn't easy to predict for companies like Facebook and Google, and the similarities implied by doing these reverse discounted cash flow models may indicate that analysts and investors, up until Thursday, had picked nearly the same growth number for both companies out of convenience. None of this means Google is the next technology stock to tumble though. Future quarters may disappoint investors the way Facebook's recent quarter did, but they may just as well impress the market. Everyone now will have to persuade themselves whether the optimism baked into Alphabet's price is justified. For at least the two days of trading this week after Facebook's stumble, it seems they have.

## Tesla

Speaking of driverless cars, Steve Eisman, a manager profiled in Michael Lewis's *The Big Short*, thinks another popular technology company, Tesla, [isn't doing enough](#) to make inroads in that area. Indeed, the electric car maker has burned through more than \$8 billion in cash over the last four years, \$4 billion last year alone. It shows no signs of being able to generate positive cash flow.

	Tesla FCF (in billions), assuming 6.5% annualized growth	Present value (in billions), applying a 10% Discount Rate			
2017	-\$4.14				
2018	\$1.70	\$1.55			
2019	\$1.79	\$1.48			
2020	\$1.87	\$1.41			
2021	\$1.97	\$1.34			
2022	\$2.07	\$1.28			
2023	\$2.17	\$1.22			
2024	\$2.28	\$1.17			
2025	\$2.39	\$1.12			
2026	\$2.51	\$1.07			
2027	\$2.64	\$1.02			
		2018-2027 Cash Flows		Terminal Value	Total Present Value
		\$12.65		\$38.81	\$51.45

Its current market capitalization of around \$50 billion assumes one scenario (shown below) whereby it somehow produces \$1.7 billion in free cash flow next year and grows that number by 5% annually for the next decade. This would be nothing short of miraculous for a company that has lost so much cash already. Perhaps it's unwise to count Elon Musk out, but investors should think hard before sinking money into an enterprise that hasn't been able to generate free cash flow for so long. Second thoughts are especially in order for those contemplating buying shares given Tesla's nearly \$10 billion debt load and the nearly \$0.50 billion interest payments it made last year.

## **Conclusion**

It's hard to know if Facebook's (and now Twitter's) problems represent the technology sector's comeuppance. Facebook produced more than \$17 billion of free cash flow last year, and it's still a healthy company even if investors are re-thinking past assumptions about its growth and profitability. Not all of today's technology firms have as unlikely a road to success and to posting the profits that justify their stock prices as Tesla.