

Yardeni Research



MORNING BRIEFING

March 21, 2019

Disrupting the Disruptors

See the collection of the individual charts linked below.

(1) Internet pioneers circling the wagons. (2) Arrows, barbs, tar, and feathers. (3) Is sharing data criminal? (4) EU slaps Google with another big speeding ticket. (5) Horror in New Zealand. (6) Trust-busters on the warpath. (7) Chinese offering US semiconductor companies a raw deal. (8) Hybrids may be the next fashion statement in computing.

Technology I: Fangdango. The arrows aimed at Facebook and the broader Internet community are coming fast and furious. Facebook is being faulted for broadcasting the live stream of the murders in New Zealand. The company is being investigated by the Department of Justice (DOJ), the Federal Trade Commission (FTC), and the Securities and Exchange Commission (SEC), to name a few. Politicians are piling on with barbs and threats of their own.

While this period of Facebook's tar and feathering is often compared to Microsoft's antitrust years, the scrutiny Facebook faces seems far worse. The sins and the prosecutors are more diverse, and the ramifications threaten the other Internet giants as well. Below, Jackie looks at some of the biggest threats Facebook and other social media companies face:

(1) Criminal investigation. The DOJ and the US Attorney's office for the Eastern District of New York are looking into the data-sharing deals Facebook struck with tech companies, including smartphone companies, according to a 3/13 NYT article. Among Facebook's data-sharing arrangements, per a 12/18 NYT article: Microsoft's Bing search engine was allowed to see the names of almost all Facebook users' friends without consent; Netflix and Spotify were able to read Facebook users' private messages; Amazon could obtain users' names and contact information through their friends; and Yahoo could see streams of friends' posts.

According to the December article, Facebook doesn't believe these arrangements are problematic because it considers its partners extensions of itself. Partners are "service providers that allowed users to interact with their Facebook friends. The partners were prohibited from using the personal information for other purposes." However, Facebook has been historically bad at monitoring its partners and their use of Facebook data.

(2) FTC investigation. In 2009, Facebook changed the privacy settings of the 400 million people using its service, making some of their information available to all on the Internet. It also shared the information with its tech partners. The company considered it "instant personalization." However, in 2011 the FTC deemed the privacy changes a deceptive practice. Facebook and the FTC entered into a consent agreement whereby Facebook introduced a privacy program to review new products and features overseen by two chief privacy officers.

Facebook's data-sharing deals have put the company in the FTC's crosshairs again. "F.T.C. officials, who spent the past year investigating whether Facebook violated the 2011 agreement, are now

weighing the sharing deals as they negotiate a possible multibillion-dollar fine. That would be the largest such penalty ever imposed by the trade regulator," said a 3/13 NYT <u>article</u>.

Politicians are calling on the FTC to be even more aggressive. Representative David Cicilline (D-RI) in a 3/19 NYT op-ed wrote: "After each misdeed becomes public, Facebook alternates between denial, hollow promises and apology campaigns. But nothing changes. That's why, as chairman of the House Subcommittee on Antitrust, Commercial and Administrative Law, I am calling for an investigation into whether Facebook's conduct has violated antitrust laws."

He added that Facebook's actions have reduced competition, while the quality of its products has declined and its advertising prices have continued to rise. This, he said, is a smoking gun. He implied the agency should consider bringing a monopoly case against the company.

The European Union (EU) has also been actively monitoring the Internet giants' behavior. Yesterday, the EU fined Google \$1.7 billion after determining the company spent 10 years preventing other websites from using the advertising services of rivals. The company ended this behavior after the charges were filed about three years ago. The latest decision brings Google's EU antitrust fines up to \$9.4 billion since 2017.

- (3) SEC investigation. The SEC is investigating whether Facebook warned investors that developers and other third parties may have obtained users' data without their permission or in violation of Facebook's policies, a 7/12 WSJ article stated. The SEC "seeks to understand how much the company knew about Cambridge Analytica's use of the data, these people said. The agency also wants to know how Facebook analyzed the risk it faced if developers were to share data with others in violation of its policies, they added," the article stated. The agency has taken the stance in other cases that companies must disclose material data leaks or breaches of which they are aware.
- (4) Outcry over New Zealand video. The New Zealand mosque shooter's video was live-streamed on Facebook and seen 200 times before the company took it down. None of the viewers flagged the video to Facebook moderators. And before Facebook was notified, the video was copied and a link to the copy was posted and subsequently reposted. As a result, it's estimated that the video has been viewed millions of times on the Internet despite the best efforts of Facebook, YouTube, Twitter, and others.

The inability to catch the video more quickly or prevent it from being duplicated led many to believe the large Internet sites like Facebook have become too big to monitor their own content. One interesting suggestion was putting all videos on a time delay, to give Facebook a head start in detecting which videos are inappropriate. If live TV can be on a delay, the thinking goes, so can Internet video feeds.

(5) Politicians pile on. Everyone from President Donald Trump to Democratic presidential hopefuls has pounced on the tech companies. Senator Amy Klobuchar (D-MN) has floated the idea of taxing tech companies when they use consumers' data. "When they sell our data to someone else, well, maybe they're gonna have to tell us so we can put some kind of a tax on it, just like we do with other businesses," she told Recode's Kara Swisher, according to the 3/16 transcript. She's also sponsoring privacy legislation that requires notice of a data breach within 72 hours and allowing users to opt out of data-sharing.

Another presidential hopeful, Senator Elizabeth Warren (D-MA), has suggested breaking up big tech companies like Facebook, Google, and Amazon. She contends that the tech giants have gotten so big that they are controlling how we use the Internet, while stifling competition and innovation. Warren's solution: unwind previously executed mergers, like Facebook/Instagram, Amazon/Whole Foods, and Google/DoubleClick.

Warren would also spin out any online marketplace, exchange, or platform for connecting third parties, label them a utility, and hold them to stricter data-sharing regulations. This would affect Google's search product and Amazon's Marketplace.

"Small businesses would have a fair shot to sell their products on Amazon without the fear of Amazon pushing them out of business. Google couldn't smother competitors by demoting their products on Google Search. Facebook would face real pressure from Instagram and WhatsApp to improve the user experience and protect our privacy," she explained, according to a 3/8 Recode article.

Even President Trump has pounced. Dan Scavino, President Trump's social media director, said Facebook banned him from posting comments on Monday. Facebook said the ban was temporary and occurred after its system thought Scavino was a bot because his account had a certain amount of identical, repetitive activity.

A story about the suspension was retweeted on Trump's Twitter <u>account</u> with the threat "I will be looking into this! #StopTheBias." The President in November said his administration would look into Facebook, Google, and Amazon for potential antitrust violations and has claimed that tech companies have colluded against conservatives.

(6) The pressure is on. FANG shares have largely performed well despite privacy concerns, antitrust whispers, and political barbs (the acronym stands for Facebook, Amazon, Netflix, and Google's parent Alphabet). Measured from the stock market bottom on December 24 through Tuesday's market close, FANG shares have climbed 28.9% compared to the S&P 500's 20.4% surge. Likewise, FANG shares are up 7.8% y/y versus the S&P 500's 4.4% appreciation.

However, since the news of the Facebook criminal investigation broke in the 3/13 *NYT*, Facebook shares are down 6.0% through Tuesday, while the rest of the FANG shares are up 2.7% and the S&P 500 has risen 1.5% (*Fig.* 1).

FANG's forward P/E has fallen sharply to 48.1, down from the 60 neighborhood over the past six years (*Fig. 2*). The forward P/E of most FANG members has fallen sharply from the start of 2013 to today. Facebook's has fallen from 39.7 to 21.6 last Friday, Amazon's from 140.9 to 55.2, and Netflix's from a stratospheric 225.4 to 77.5. The exception: Alphabet's forward P/E has climbed from 15.1 to 24.4 (*Fig. 3*). The fact that FANG shares have climbed in recent years despite the P/E compression attests to their rapid earnings growth (*Fig. 4*).

Technology II: Semiconductor Deal-Making. When making a trade deal, it's imperative to read the fine print. The semiconductor industry is objecting to an offer from China to purchase \$30 billion of US semiconductors over six years. That's roughly double what's currently imported by China. So why the long faces?

The Chinese purchase US semiconductors that are manufactured or assembled in Mexico and Malaysia, among other places, and considered exports of those countries. US companies don't manufacture semis in the US because doing so is too expensive. To meet the \$30 billion Chinese target, US companies would have to move their manufacturing operations to China, "allowing those products to be counted as US exports rather than those of other countries," a 2/14 WSJ article reported. But the semiconductor industry doesn't want to move its plants to China because doing so would increase the industry's dependence on the country.

"Whatever the number, the Chinese chip purchase offer is a distraction that risks deepening Chinese

state influence in an environment that is otherwise market-based," said John Neuffer, president of the Semiconductor Industry Association (SIA). "The market should determine commercial success, not government fiat."

The S&P 500 Semiconductors industry stock price index has surged this year, rising 19.1% ytd, while the S&P 500 Semiconductor Equipment stock price index has soared 28.3%. This banner performance comes despite declining worldwide sales—down in January by 5.7% y/y and 7.2% m/m, reported the SIA. Worldwide sales of semis in November/December/January were down 15.8% from the sales in August/September/October.

Analysts are forecasting a 2.5% drop in revenue and an 8.8% drop in earnings this year for the S&P 500 Semiconductors industry (*Fig.* 5 and *Fig.* 6). The expected falloff is even sharper for the S&P 500 Semiconductor Equipment industry, where revenue is expected to decline 11.6% and earnings are thought to tumble 23.7% this year (*Fig.* 7 and *Fig.* 8). Earnings in both industries are forecast to increase again in 2020, but it's awfully early to start looking that far ahead.

Technology III: Hybrid Quantums Arrive First. Children need to learn how to walk before they can run. The same may be true of quantum computers. Some industry players are combining quantum computers with classical computers for levels of functionality that neither can achieve on its own.

Rigetti Computing is offering Quantum Cloud Services, which combine quantum processors and traditional servers co-located in its data centers. Doing so allows for much faster computations than with one computer at a scientist's location and a quantum computer in a cloud server. The quantum computer has a 16-qubit chip. Rigetti has a 128-quibit chip that will be used in the future, explains a 9/7 article in the MIT Technology Review.

DARPA, the Defense Advanced Research Projects Agency, is looking for a hybrid approach. It has asked for proposals on how to combine quantum and classical computing systems that exist today in order to help the military solve optimization problems, according to a 2/27 press release. Such problems might include how best to schedule, route, or supply items across austere locations around the world.

CALENDARS

US. Thurs: Leading Indicators 0.1%, Jobless Claims 225k, Philadelphia Fed Business Outlook 5.0. **Fri:** M-PMI & NM-PMI Flash Estimates 53.6/55.8, Existing Home Sales 5.10mu, Wholesale Trade Inventories 0.1%, Monthly Budget -\$227.0b, Baker-Hughes Rig Count. (DailyFX estimates)

Global. Thurs: Eurozone Consumer Confidence -7.1, UK Retail Sales Including & Excluding Auto Fuel 3.3%.3.5% y/y, Australia Employment Change & Unemployment Rate 15k/5.0%, Japan CPI Headline, Core, and Core-Core 0.3%/0.8%/0.4% y/y, BOE Bank Rate & Asset Purchase Target 0.75%/£435b, ECB Publishes Economic Bulletin. **Fri:** Eurozone, Germany, and France C-PMI Flash Estimates 52.0/52.7/50.7, Eurozone, Germany, and France M-PMI Flash Estimates 49.5/48.0/51.4, Eurozone, Germany, and France NM-PMI Flash Estimates 52.7/54.8/50.6, Japan M-PMI Flash Estimate, Canada Retail Sales 0.4%, Canada Headline & Core CPI 1.4%/1.8% Y/Y. (DailyFX estimates)

STRATEGY INDICATORS

Stock Market Sentiment Indicators (*link*): The Bull/Bear Ratio (BBR) climbed for the ninth time in 11 weeks this week, advancing from 0.86—which was the lowest since mid-February 2016—to a fivementh high of 2.62 over the period. The BBR's bullish sentiment component increased 10 times over

this 11-week period, by 24.0ppts, jumping from 29.9% (which was the fewest bulls since February 2016) to a 21-week high of 53.9%. It's the fifth consecutive reading above 50.0%. Meanwhile, bearish sentiment has been bouncing in a range between 20.4% and 21.5% the past nine weeks, falling back to the bottom of the range this week, dropping from 21.4% to 20.6%. The correction count declined for the seventh week, from 33.6% to 25.5%, the lowest since early October; it was at 41.1% 15 weeks ago (which was the highest percentage since late September 2015). The AAII Ratio sank for the second week last week from 67.5% to 51.1%. Bullish sentiment fell from 41.6% to 32.4% over the two-week period, while bearish sentiment rose from 20.0% to 31.1%.

S&P 500 Earnings, Revenues, Valuation & Margins (link): Consensus S&P 500 forward revenues rose 0.1% w/w, and forward earnings edged up too. Forward revenues is now down 0.6% from a record high in early January, and forward earnings is now 1.8% below its record high in early December. Analysts expect forward revenues growth of 5.5% and forward earnings growth of 6.3%, compared to week-earlier readings of 5.4% and 6.5%, respectively. Forward revenues growth is down 0.8ppt from a seven-year high of 6.3% in February 2018, but is up from a 31-month low of 5.0% in mid-February. Forward earnings growth is down 10.6ppts from a six-year high of 16.9% last February, but that's up from a 34-month low of 5.9% in late February. Prior to the passage of the Tax Cuts and Jobs Act (TCJA), forward revenues growth was 5.5% and forward earnings growth was 11.1%. Turning to the annual growth expectations, analysts expect revenues growth to slow from 8.5% in 2018 to 5.3% in 2019 and 5.5% in 2020. They're calling for earnings growth to slow sharply from 24.1% in 2018 to 3.9% in 2019 before improving to 11.5% in 2020. The forward profit margin remained steady w/w at a ninemonth low of 12.1%, and is down 0.3ppt from a record high of 12.4% in mid-September. Still, that's up from 11.1% prior to the passage of the TCJA in December and compares to a 24-month low of 10.4% in March 2016. The S&P 500's forward P/E has moved higher in 10 of the past 11 weeks, rising w/w to 16.4 from 16.2. That's a tad below its 21-week high of 16.5 three weeks ago, but is up from 14.3 during December, which was the lowest reading since October 2013 and down 23% from the 16-year high of 18.6 at the market's valuation peak in late January. The S&P 500 price-to-sales ratio of 1.99 is up from 1.96 a week earlier and 1.75 during December, which was the lowest since November 2016 and down 19% from a record high of 2.16 in late January.

S&P 500 Sectors Earnings, Revenues, Valuation & Margins (link): Consensus forward revenues and earnings rose w/w for five of the 11 S&P 500 sectors. Four of the five saw both measures rise w/w: Communication Services, Consumer Discretionary, Health Care, and Real Estate. Forward revenues and earnings are at or around record highs for 4/11 sectors: Consumer Discretionary, Health Care, Industrials, and Tech. Energy's forward earnings had about tripled from the 18-year low in April 2016 through early November, but has tumbled 23.9% since then. Forward P/S and P/E ratios are now well below their 2018 highs for all sectors, and had been at multi-year lows during December for five sectors: Energy, Financials, Industrials, Materials, and Tech. Energy's forward P/E of 17.3 is higher than usual due to its earnings deterioration. Due to the TCJA, the profit margin for 2018 was higher y/y for all sectors but Real Estate, but that sector's earnings includes gains from property sales, which typically are infrequent. The forward profit margin was at record highs during 2018 for 8/11 sectors, all but Energy, Health Care, and Real Estate. Since then, it has rolled over for all sectors except Financials and Utilities. The outlook for 2019 shows lower margins are now expected y/y for 6/11 sectors: Communication Services, Consumer Staples, Energy, Health Care, Materials, and Real Estate. During the latest week, the forward profit margin dropped 0.2ppt for Financials, but rose 0.1ppt for Real Estate. However, nine sectors are down from their highs in late 2018. Here's how the sectors rank based on their current forward profit margin forecasts versus their highs during 2018: Information Technology (22.3%, down from 23.0%), Financials (18.7, down from 19.2), Real Estate (15.3, down from 17.0), Communication Services (14.8, down from 15.4), Utilities (12.8, down from 13.0), S&P 500 (12.1, down from 12.4), Materials (10.7, down from 11.6), Health Care (10.5, down from 11.2), Industrials (at a

record high of 10.4), Energy (6.7, down from 8.0), Consumer Discretionary (7.5, down from 8.3), and Consumer Staples (7.4, down from 7.7).

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