# Yardeni Research, Inc.



## MORNING BRIEFING January 11, 2018

# **FANG-dango**

## The next Morning Briefing will be sent on Tuesday, January 16.

See the collection of the individual charts linked below.

- (1) Taking a shower with Alexa. (2) FANGs gaining market cap share. (3) Say "hi" to Alexa Voice Services.
- (4) Semiconductor firms are big winners. (5) Volocopters are coming. (6) FANGs cannibalizing FANGs. (7) FANGs under attack by regulators and critics. (8) Show biz has turned into a blood sport.

**Tech Focus: Talking Showers.** The Consumer Electronics Show (CES) is a great way to start a year because it's full of optimism about exciting new innovations and updates of old ones. Some of the new products displayed at CES are jazzed-up versions of the mundane: a shower head that has Alexa imbedded in it so it responds to voice commands to turn on at a certain temperature, a suitcase that rolls behind a traveler like a dog, and a "smart" refrigerator that knows if it's time to buy more milk.

Other items introduced at CES—even if they may not be sold anytime soon—are awe inspiring and have the potential to dramatically change the world in which we live. Changing the way people and goods are transported was a major theme of this year's CES. Fisker has an electric car run on a solid-state battery that boasts 500 or more miles per charge at a lower cost than current alternatives. Nvidia's CEO discussed how the company's chips are in autonomous cars. Ford's CEO went bigger picture, delving into how cars, streets, and cities could be connected wirelessly to make transportation systems work better—if we are willing to give up some privacy. And Intel's CEO introduced an autonomous, flying taxi. Hello, Jetsons!

The CES news coverage and strong upward earnings revisions undoubtedly helped propel the S&P 500 Technology stock price index ahead of all other S&P 500 sectors early in the new year (<u>Fig. 1</u>). Here's the performance derby ytd through Tuesday's close: Tech 4.3%, Energy (4.2%), Health Care (4.0), Materials (3.9), Industrials (3.8), Consumer Discretionary (3.5), S&P 500 (2.9), Financials (2.3), Consumer Staples (0.1), Real Estate (-2.5), Utilities (-2.6), and Telecom Services (-3.0) (<u>Fig. 2</u>).

The FANGs (Facebook, Amazon, Netflix, and Alphabet, parent of Google) and a few other tech stocks have performed even more impressively than the Tech sector at large. Ytd through Tuesday's close, Facebook is up 4.5%, Amazon.com (7.1%), Netflix (9.0), Alphabet (5.7), Nvidia (14.7), and Tesla (7.2).

The FANG stocks have become increasingly important to the S&P 500, according to Joe's calculations. FANG shares represented 8.7% of the S&P 500's market capitalization on January 4, up from 4.0% at the beginning of 2015. The market cap also looks outsized relative to the four stocks' earnings, which equate to only 2.7% of S&P 500's earnings and 0.3% of its revenue (*Fig. 3*). I asked Jackie to take a look at what's got FANG investors so excited:

(1) Mirror, mirror on the wall. Amazon has Alexa, Google has Assistant, Apple has Siri, Samsung has Bixby, and Facebook has created Portal. Now all of the voice assistants need to be kept busy. CES showcased a raft of products that have assistants imbedded in them. For example, Kohler has a mirror, which when asked, can play music, turn a shower on to a specific temperature, and adjust the

brightness of the lights. The mirror uses Alexa and will eventually have Google Assistant as well, a 1/8 WSJ <u>article</u> reported.

Expect to do a lot of chatting with appliances in the near future. A 1/8 *Wired* article explained: Amazon has "created a new division called Alexa Voice Services [AVS], which builds hardware and software with the aim of making it stupendously easy to add Alexa into whatever ceiling fan, lightbulb, refrigerator, or car someone might be working on. 'You should be able to talk to Alexa no matter where you're located or what device you're talking to,' says Priya Abani, Amazon's director of AVS enablement. 'We basically envision a world where Alexa is everywhere." The company has about 50 third-party Alexa devices on the market and seems to have the lead.

Jackie reports, "The importance of voice assistants was clear after I asked my son a question. I would have used my phone's web browser to find the answer. He immediately asked Siri for the answer. If turning to a voice assistant for information becomes second nature, could it result in the disruption of Google's web advertising business in 2018?"

Both Amazon and Alphabet have numerous other fast-growing businesses, including Amazon Web Services and YouTube. Amazon shares, up 57.2% y/y, trade at 156.8 times this year's expected earnings per share of \$7.99, while Alphabet's shares, up 37.1% over the same period, trade at 26.7 times its expected EPS of \$41.48. Amazon's earnings are forecasted to grow by 85.8% y/y, while Alphabet is expected to boost earnings by 28.7%.

(2) Chips, chips everywhere. We've long favored semiconductors, which had a banner 2017. The S&P 500 Semiconductors index rallied 33.4% last year, and the Semiconductor Equipment index soared 57.8%, bolstered by strong earnings growth (*Fig. 4*). The more intelligent inanimate objects get, the more semiconductors they'll need. Autonomous cars consume vast quantities of data, and it's likely they'll be driving in "smart" cities where cars, signs, streets, bikes etc. all will communicate wirelessly.

Two of the semiconductor industry's titans spoke at CES: Nvidia's CEO Jensen Huang and Intel's Brian Krzanich. Nvidia earned its chops designing GPUs—graphic processing units, used to run computer games. While Huang touched on gaming in his CES presentation, he spent more time with Volkswagen's CEO Herbert Diess, who joined Huang on stage to discuss how Nvidia's chips would be used in VW's autonomous, electronic bus. Huang also announced Nvidia's new partnership with Uber, which is also working on self-driving technology.

When Intel's Krzanich took the stage, he had to explain how the company planned to patch products that had security flaws. Later, however, he invited Mobileye's CEO Amnon Shashua on stage together with an autonomous car powered by Mobileye's technology. Intel bought Mobileye last year for about \$15 billion, and the technology is in many of the major auto companies' cars.

But what was truly imagination-capturing was a <u>video</u> of Krzanich riding in a volocopter—an autonomous, battery-powered air taxi made by Volocopter GmbH. It rose vertically, like a helicopter, but looked like a large drone that had room for two passengers. It uses Intel technology and can be summoned with a cell phone app. Autonomous vehicles, whether driving or flying, require the ability to absorb vast amounts of data, and he who designs the smallest, most robust, and most energy-efficient system will win the day.

The stocks of Intel and Nvidia have had very different years. Intel shares are up 19.2% over the past year, trounced by the 106.9% surge in Nvidia shares. Intel shares trade at 13.4 times 2018 earnings, which are flat y/y, while Nvidia shares trade 47.3 times this year's earnings, which are expected to grow by 11.9%.

(3) *Under fire.* The FANG constituents each may have started out perfecting a service or product in their own, unique silos. But CES made it clear that the tech giants, in an effort to attract new eyeballs or keep old eyeballs for longer periods, are forcefully elbowing into each other's territories.

As we mentioned above, most of the tech giants are peddling their own voice assistants. Many also have jumped into the market for virtual reality headsets. Facebook, for example, bought Oculus, a virtual reality (VR) company for \$2 billion in 2014, and at CES it launched its first VR headset for the Chinese market, according to a 1/8 Recode <u>article</u>. Google, the king of search, also has its own VR headset offerings. Meanwhile, Apple, the consumer product company, is reportedly working on an augmented-reality headset.

Entertainment is another area that the tech titans are swarming into in hopes of holding eyeballs for longer periods. Facebook announced it will livestream college basketball games for free this season. Alphabet's YouTube, Amazon Prime, and Netflix have all gotten into the business of making movies, with Amazon's Jeff Bezos attending the Golden Globes last weekend. And even Disney has gotten into streaming, with plans to pull some of its content off of others' streaming services, and instead stream the content directly to customers itself. Dare we say, there's too much content floating around the Internet.

Were that not enough, some of the largest tech titans have become punching bags for regulators and industry watchers. Facebook has been criticized for "ripping apart society" with addictive programs that make us envious of the perfect lives posted online. Apple came under fire for slowing down the performance of old phones without alerting users and for not helping parents limit children's use of the phone. Advertisers were up in arms when they realized Google was allowing their ads to share screens with inappropriate YouTube videos last year. And the ultimate knockout punch came last month when the FCC repealed net neutrality regulations, which required communications companies to treat all web traffic the same when distributing and charging for it. Just how this will affect the tech giants may determine whether their outsized stock gains can continue.

Facebook shares have climbed by 50.2% y/y through Tuesday's close, on par with Netflix's 59.8% rise. Facebook trades at 28.3 times the \$6.63 a share analysts expect it to earn this year, while Netflix's multiple is 91.0 times this year's projected earnings. Facebook is expected to grow earnings by 12.8% y/y in 2018, while Netflix is expected to grow them by a much speedier 81.1%. No one said getting older was easy.

#### **CALENDARS**

**US. Thurs:** Jobless Claims 245k, PPI-FD Headline, Core, and Core Ex Trade Services 0.2%/02%/0.2%, Treasury Budget -\$36.0b, Weekly Consumer Comfort Index, EIA Natural Gas Report, Dudley. **Fri:** Retail Sales Total, Ex Autos, Ex Autos & Gas, Control Group 0.5%/0.4%/0.4%/0.3%, Business Inventories 0.3%, Headline & Core CPI 2.1%/1.7% y/y, Baker-Hughes Rig Count. (*Wall Street Journal* estimates)

**Global. Thurs:** Eurozone Industrial Production 0.8%m/m/3.0%y/y, Germany GDP 2.4% y/y, Japan Leading & Coincident Indexes 108.6/116.4, ECB Account of Monetary Policy Meeting, BOE Credit Conditions & Bank Liabilities Survey. **Fri:** China Trade Balance \$37.4b. (DailyFX estimates)

## STRATEGY INDICATORS

Stock Market Sentiment Indicators (link): Our Bull/Bear Ratio (BBR) rebounded to 4.77 this week—

the highest since January 1987—after falling to 4.07 last week. It was the eleventh time in the past 13 reporting weeks that the reading was 4.00 or higher. Bullish sentiment jumped from 61.9% to 64.4% this week—just shy of its record high of 64.9% posted in early 1987; it has been at 60.0% or above since the week of October 10. Bearish sentiment sank to 13.5%, the fewest bears since late August 2014, after fluctuating between 15.1% and 15.4% since mid-November. The correction count fell from 22.9% to 22.1% this week; it had dropped to 20.8% in late December, which was near its low for the year of 20.4% during the final week of February. The AAII Ratio rose for the fourth week last week from 51.9 to 79.3 over the period. Bullish sentiment rose for the seventh consecutive week from 29.4% to 59.8%, while bearish sentiment fell for the fourth week from 34.2% to 15.6%.

**S&P 500 Earnings, Revenues & Valuation** (*link*): Last week saw S&P 500 consensus forward revenues and earnings rise to new record highs. The forward profit margin forecast rose 0.1ppt for a second straight week to a record high of 11.3%. Prior to the passage of the Tax Cut & Jobs Act (TCJA), the profit margin had been steady at 11.1% since October, which was the highest since September 2015 and up from a 24-month low of 10.4% in March 2016. Forward revenue growth for the S&P 500 fell to 5.4% from 5.6%, which is down from a 10-month high of 5.7% at the end of November. Those readings compare to 5.8% in January 2017, which was the highest since May 2012, and a cyclical low of 2.7% in February 2016. Forward earnings growth jumped to 12.3% from 11.8%, and is the highest since October 2011. That compares to 11.1% prior to the passage of TCJA, and a cyclical low of 4.8% in February 2016. Forward growth for the S&P 500 is enjoying a tailwind now due to easy y/y comparisons for Energy and improving forward growth rate forecasts for revenues (STRG) and earnings (STEG) for Consumer Staples, Industrials, Materials, and Tech. However, Energy's contribution to forward growth peaked at the start of 2017. Looking at last week's results, the S&P 500 ex-Energy's forward growth was 5.2% for revenues and 11.3% for earnings. The S&P 500 ex-Energy forward profit margin rose to a record high of 11.9%, which is up from 11.7% before the TCJA. The forward P/E dropped to 18.4 from 18.5 a week ago, which was the highest since May 2002 and up from a 15-month low of 14.9 in January 2016. The S&P 500 price-to-sales ratio rose 0.2ppt to a record high of 2.08, and was at a record high of 2.14 on an ex-Energy basis. The ex-Energy forward P/E dropped to 18.1 from 18.2, which was the highest since January 2004.

**S&P 500 Sectors Earnings, Revenues & Valuation** (*link*): Consensus forward earnings forecasts rose last week for all 11 sectors, and forward revenues rose for all but Financials and Telecom. Forward revenues and earnings are at or around record highs for 5/11 sectors: Consumer Discretionary, Consumer Staples, Health Care, Industrials, and Tech. Energy's forward revenues and earnings are ticking higher now, but remain near their lowest levels since the spring of 2017. Forward P/E ratios remain near cyclical highs for all sectors except Energy, Health Care, and Telecom. Energy's forward revenues and earnings are improving from cyclical lows in early 2016, but its valuations remain elevated; its P/S ratio of 1.40 compares to a record high of 1.56 in May 2016, and its P/E of 25.4 is down from a record high of 57.5 then. Higher y/y margins are expected in 2018 for all but Real Estate and Telecom, but Real Estate earnings includes gains from property sales and typically improve as the year progresses. In the latest week, the forecasted forward profit margin surged 0.6ppt for Financials, and rose 0.1ppt for five other sectors: Consumer Discretionary, Health Care, Industrials, Materials, and Real Estate. Here's how the sectors rank based on their current forward profit margin forecasts: Information Technology (21.3%), Financials (17.2), Real Estate (17.0), Utilities (11.4), Telecom (11.4), S&P 500 (11.3), Materials (10.8), Health Care (10.7), Industrials (9.3), Consumer Discretionary (7.6), Consumer Staples (6.8), and Energy (5.5).

# **US ECONOMIC INDICATORS**

**Import Prices** (*link*): Import prices in December decelerated slightly, rising 3.0% y/y, down from 3.3% in November, but above its recent low of 1.2% recorded during July. The rate was at a five-year high of

4.7% in February after bottoming at -11.6% in September 2015. The yearly rate for petroleum prices was in double digits for the fourth month at 20.7% y/y, slowing from 25.2% in September; it was at a recent low of 3.2% in June. December's rate is considerably below February's seven-year high of 74.1%. Nonpetroleum products advanced 1.3% in the 12 months through December, hovering around that rate most of last year; the yearly rate had turned positive in December 2016 (0.3% y/y) for the first time since November 2014. Total import prices increased only 0.1% last month, after accelerating 0.8% in November. Nonpetroleum import prices fell 0.2%, after little change the prior two months. It was the second negative reading during 2017.

## **GLOBAL ECONOMIC INDICATORS**

**UK Industrial Production** (*link*): UK industrial output in November rose for the eighth straight month to its highest reading since October 2008. Headline production climbed 0.4% m/m and 3.1% over the eight-month period as manufacturing output rose for the seventh consecutive month, up 0.4% in November and 3.0% over the period, to a new cyclical high. The latest move up in factory production was led by gains in the production of capital and consumer durable goods of 5.3% and 5.1%, respectively, over the seven-month period. Looking ahead, Markit reports growth in UK's manufacturing sector remained solid at the end of 2017, with output, new orders, and employment all robust. The M-PMI did slip to 56.3 after reaching a 51-month high of 58.2 in November; still, Q4's performance was the best since mid-2014.

**France Industrial Production** (*link*): Industrial production in November took a step back after reaching a new cyclical high in October. Headline production, which excludes construction, slipped 0.5% in November, after a two-month surge of 2.5%, as manufacturing output slumped 1.0% during the month. Driving November's loss were sharp declines in the output of chemicals (4.0%), machinery & equipment (-3.7), and pharmaceuticals (-2.3). Despite November's decline, headline and factory output were still up a solid 2.0% and 2.1% the past three months, posting y/y gains of 3.8% and 4.4%, respectively. Meanwhile, France's December M-PMI (58.8) shows manufacturing accelerated at its fastest pace since September 2000, with output and employment growth the best in 17 years, and new orders the strongest in seven years.

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