



MORNING BRIEFING

September 7, 2017

Healthy Returns

See the [collection](#) of the individual charts linked below.

(1) Biotechs have been taking good care of investors this year. (2) More FDA approvals help. (3) Drugs are increasingly more specialized, treating fewer people at higher prices. (4) T-cells on speed to the rescue. (5) Drug companies buying drugs. (6) Altering genes. (7) Pharmas lagging Biotechs. (8) Chinese fire drill for cryptocurrencies.

Health Care: More Drugs. Drug prices and Obamacare were hot-button issues in the 2016 presidential election. But with North Korea shooting missiles and hurricanes wreaking havoc, Washingtonians are focused elsewhere. Meanwhile, a bevy of new medical breakthroughs—and a little M&A—are lighting a fire under the S&P 500 Biotechnology stock index. It's up 23.0% ytd through Tuesday's close.

Biotechnology is one of three industries propelling the S&P 500 Health Care sector higher. The other two are Managed Health Care, up 29.3% ytd, and Health Care Equipment, up 22.7% ([Fig. 1](#)). They've helped make Health Care one of the best-performing sectors so far this year. It's a trend we highlighted in the 6/15 [Morning Briefing](#), and it continues today. Here's how the S&P 500 sectors' ytd performances stack up through Tuesday: Tech (24.1%), Health Care (17.1), Utilities (12.3), Consumer Discretionary (10.0), S&P 500 (9.8), Materials (9.5), Industrials (7.2), Real Estate (6.5), Consumer Staples (6.3), Financials (3.8), Telecom Services (-12.2), and Energy (-15.6) ([Fig. 2](#)). I asked Jackie to have a closer look at what's healing the drug industry:

(1) *More new drugs, higher prices.* The biotech and pharmaceutical industries have benefitted from a resurgence of new drug approvals. So far this year, 31 drugs have received FDA [approval](#). That's a nice rebound from last year, when only 22 drugs were [approved](#) for the entire year. Last year's meager crop of new drugs led to fears that productivity in drug development had fallen. Now, however, it looks more like a quirky timing issue—some drugs won early approval in 2015, and other approvals were pushed into 2017—caused last year's dip.

Going forward, the industries' pipeline of drug approvals looks healthy as well. "According to QuintilesIMS, which compiles data for the pharmaceutical sector, the robust state of the industry's late-phase R&D pipeline means it is well placed to yield an average of 40 to 45 new launches annually through to 2021," a 5/25 Reuters [article](#) reported.

Many of the drugs being developed are more specialized. They treat fewer patients, but they get faster FDA reviews and higher price points. This may help to explain why branded drug prices jumped 10% y/y in June, while generic drug prices fell 8%, the *WSJ* [reported](#). "What the data masks is that while there might be more approvals, the total number of people getting new drugs is probably not going to up hugely because these are more specific, personalized treatments," Hilary Thomas, chief medical adviser at KPMG told Reuters.

(2) *Amazing innovations.* One of the most fascinating new therapies being developed involves genetically altering patients' cells so they can fight cancer. Novartis received FDA approval for a therapy that uses this technique to fight acute lymphoblastic leukemia in kids and adults up to 25 years

old, an 8/30 [WSJ article](#) explained. The therapy is broadly known as “CAR-T,” or “chimeric antigen receptor T-cell” therapy. Novartis’ version is dubbed “Kymriah.”

During Kymriah therapy, white blood cells, or T-cells, are extracted from a patient. Genes that recognize specific cancer cells are inserted into the T-cells using an inactive virus. The genes produce receptors on the surface of the T-cells that are attracted to malignant proteins on the surface of cancer cells. The modified T-cells are grown in a lab for 10 days. The patient undergoes chemotherapy to kill off some white blood cells to help the body accept the modified T-cells. Then the modified T-cells are injected back into the patient, where they multiply, target, and kill the cancer cells.

Some patients who received the treatment in trials seven years ago remain cancer-free. Novartis undoubtedly will get pushback on its plans to charge \$475,000 for the treatment, which can take roughly a month. However, it will counter that the treatment can only occur in a limited number of approved facilities, and it’s tailored to individual patients. That makes it more expensive to dispense than a mass-produced pill. Novartis is also testing the process on other cancers, including some forms of lung and brain cancer.

(3) *An M&A pop.* Gilead Sciences is paying \$11 billion to get in on CAR-T therapy. The company agreed to purchase Kite Pharma, a biotech company that has a CAR-T therapy dubbed “axi-cel” that attempts to cure an aggressive non-Hodgkin lymphoma when standard therapy has failed. The company’s axi-cel is awaiting FDA approval.

For the acquisition to pay off, Gilead will have to extend axi-cel’s use to other blood cancers and perhaps in combination with other immunotherapies, the 8/28 [WSJ explained](#).

(4) *High risk, high reward.* The success of CAR-T therapies is far from guaranteed. Some of the therapies being tested have resulted in serious to deadly side-effects.

Two Phase I clinical trials of CAR-T cancer therapy by Cellectis were placed on hold following the death of a patient who suffered from a severe toxic reaction to the treatment. The company is now working with the FDA to redesign the treatment to reduce the risks involved, according to a 9/5 [article](#) in FierceBiotech.

Likewise, Juno Therapeutics stopped development earlier this year of one of its CAR-T therapies for adults with relapsed/refractory B-cell acute lymphoblastic leukemia after patient deaths from cerebral edema, Genetic Engineering & Biotechnology News [reported](#) on 3/2.

(5) *More genetic tinkering.* Scientists are also working to prevent inherited disorders by altering the genes in embryos. They’ve focused on a mutation that leads to hypertrophic cardiomyopathy, or thickening of heart muscles, which is the most common cause of death in young, healthy athletes. Scientists used CRISPR gene editing on lab-fertilized human embryos to correct the disease, according to an 8/6 [newsletter](#) from ARK Investment Management.

“CRISPR refers to a DNA sequence encoded in a bacterial genome that protects it from viral invaders. In the bacterial genome, the DNA sequence latches on to a pre-specified portion of the virus’ DNA and, using a pair of molecular scissors, disables it at that spot. In 2012, scientists realized that CRISPR could be re-engineered and redirected to attach to any stretch of DNA in other organisms. In effect, they found a gene-function disabling tool that would direct them to most targets of interest,” ARK explained in a 1/12 [newsletter](#).

However, there are risks. From the same newsletter: “Currently, CRISPR-based editing still produces a

number of off-target cuts, a known risk that scientists are addressing. The FIND-DELETE function may find and delete unintended regions of the genome, a key weakness of the technology. As scientists continue to develop and perfect the DELETE function of CRISPR, the FIND feature already has proven to be useful as a low-cost diagnostic tool for infectious diseases.”

(6) *By the numbers.* The S&P 500 Biotechnology stock index’s 23.0% ytd (through Tuesday’s close) rally follows a sideways performance for much of the past two years ([Fig. 3](#)). Despite the rally, the industry’s forward P/E ratio of 14.7 continues to look reasonable compared to history and compared to that of the S&P 500. The industry’s forward P/E was close to 25 times forward earnings in 2014 and north of 40 times earnings in the heady days of 2000 and 2001 ([Fig. 4](#)).

The industry is expected to generate revenue growth of only 3.1% over the next 12 months and earnings growth of 4.3% during the same period ([Fig. 5](#)). But earnings estimates are moving the right direction. Analysts expect earnings to fall 0.3% this year, rise 6.7% in 2018, and increase by 10.4% in 2019, though that’s awfully far away to speculate.

Pharmaceuticals haven’t fared quite as well as biotech stocks. The S&P 500 Pharmaceutical stock index is up 7.6% ytd, leaving the index at the upper end of its three-year trading range ([Fig. 6](#)). The industry is expected to grow revenue by 3.7% over the next year and earnings should rise by 7.9% over that period ([Fig. 7](#)). Annual earnings growth is expected to come in between 7.0%-8.4% from 2016 through 2019. The industry continues to have a modest forward P/E, 15.4 ([Fig. 8](#)).

Cryptocurrencies: Illegal. We thought the cryptocurrency market was looking a little bubbly when we wrote about Initial Coin Offerings (ICOs) in the 8/17 [Morning Briefing](#). Turns out Chinese regulators did too.

The People’s Bank of China and other Chinese regulators essentially declared ICOs illegal, prohibited the sale of new ICOs, and requested the refund of money to investors who bought into ICOs that were already sold. They also will tighten the regulation of trading platforms.

The joint statement by regulators described ICO financing in withering terms: “ICO financing refers to the activity of an entity raising virtual currencies, such as bitcoin or ethereum, through illegally selling and distributing tokens. In essence, it is a kind of non-approved illegal open fund raising behavior, suspected of illegal sale tokens, illegal securities issuance and illegal fund raising, financial fraud, pyramid schemes and other criminal activity,” a 9/4 CoinDesk [article](#) reported.

The Chinese weren’t the first to warn of ICOs potential problems—the SEC and Singapore’s Central Bank issued warnings to investors—but the Chinese were the first to say they will take action. The price of bitcoin and ethereum fell sharply on the news because in order to buy into an ICO, investors had to first exchange traditional currency into bitcoin or ethereum to make the purchase. Without ICOs, a major source of recent demand for bitcoin and ethereum disappears.

The price of ethereum, the currency most frequently used to buy ICOs, dropped 31.0% from its Friday peak through Tuesday. It bounced back on Wednesday, cutting its losses almost in half, according to CoinDesk [data](#). If no new ICOs hit the market, a new source of demand will have to be found to send ethereum higher once again.

CALENDARS

US. Thurs: Productivity & Unit Labor Costs 1.3%/0.3%, Jobless Claims 239k, Weekly Comfort Index, EIA Natural Gas Report, EIA Petroleum Status Report, Dudley. **Fri:** Consumer Credit \$16.0b,

Wholesale Trade Inventories 0.4%, Baker-Hughes Rig Count, Harker. (Bloomberg estimates)

Global. Thurs: Germany Industrial Production 0.6%/m/m/4.6%/y/y, Japan GDP 2.9%q/q/-0.4%/y/y, Japan Leading & Coincident Indexes 105.1/115.8, ECB Rate Decision 0.0%, ECB Marginal Facility & Deposit Facility Rates 0.25%/-0.40%, ECB Asset Purchase Target (euros) 60b. **Fri:** Germany Trade Balance (euros) 21.0b, UK Industrial Production 0.2%/m/m/0.3%/y/y, UK BOE/TNS Inflation Next 12 Months, China CPI & PPI 1.6%/5.4% y/y, China Trade Balance \$48.6b, Lowe. (DailyFX estimates)

STRATEGY INDICATORS

Stock Market Sentiment Indicators ([link](#)): Our Bull/Bear Ratio (BBR) this week remained at last week's reading—as did all the components. The BBR was unchanged at 2.59 after falling the prior four weeks from 3.70—which was the highest since the last week of February. Bullish sentiment was at 49.5% for the second week after sliding the prior four weeks by a total of 12.1ppts from 60.2% to 48.1%—which was its lowest reading this year. The correction count held at 31.4% after climbing 10.3ppts over the previous four-week period from 23.3% to 33.6%—which was a new high for this year. Meanwhile, bearish sentiment was unchanged at 19.1%, remaining just above the narrow 16.5%-18.3% range shown most of this year. The AAll Ratio sank for the second week last week from 51.0% to a low for this year of 38.5% over the period, as bullish sentiment fell from 34.2% to 25.0% and bearish sentiment rose from 32.8% to 39.9%.

S&P 500 Earnings, Revenues & Valuation ([link](#)): S&P 500 consensus forward revenues rose w/w for the seventh time in eight weeks to a whisker below its early August record high, and forward earnings rose w/w to a new record high. The forward profit margin forecast was steady w/w at 11.0%, down from a record high of 11.1% four weeks ago. The profit margin's record high was its first since September 2015 and up from a 24-month low of 10.4% in March 2016. Forward revenue growth for the S&P 500 rose w/w to a 14-week high of 5.4% from 5.3%, but is down from 5.8% in late January, which was the highest since May 2012 and compares to a cyclical low of 2.7% in February 2016. Forward earnings growth ticked down to a five-month low of 10.7% from 10.8%, which compares to a six-month high of 11.3% in early July. It remains near January's 11.7%, which was the highest since October 2011 and compares to a cyclical low of 4.8% in February 2016. S&P 500 forward revenues and forward earnings growth are 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 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 STRG of 4.9% is 0.5ppt lower and STEG of 9.3% is 1.4ppts lower. The S&P 500 ex-Energy forward profit margin was steady w/w at 11.6%, down from a record high of 11.7% during early August, which was its first since August 2007. Due to the w/w gain in the index price, valuation rose to 17.6 from 17.5 a week earlier, which is down from late July's 13-year high of 18.0 and compares to a 15-month low of 14.9 in January 2016. The price-to-sales ratio rose to 1.95 from 1.94, slightly below late July's record high of 1.97. On an ex-Energy basis, valuation improved to 17.3 from a 14-week low of 17.2, which compares to late July's 21-week high of 17.5 and a 13-year high of 17.6 in early March.

S&P 500 Sectors Earnings, Revenues & Valuation ([link](#)): Consensus forward revenue forecasts rose last week for 4/11 sectors, and forward earnings rose for 4/11. Materials and Tech had both measures rise w/w. 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 are stabilizing now near a 10-month low, and its forward earnings is around an eight-month low. The forward P/S ratio rose w/w for 5/11 sectors, and the P/E ratio also rose w/w for 7/11 sectors. These three sectors posted notable w/w gains in both measures: Health Care, Industrials, and Tech. Health Care has been improving recently; but its P/E of 16.3 and P/S of 1.73 remain well below their early

2015 highs of 17.9 and 1.88, respectively. Financials' P/E is up from 12.0 before the election to 13.6, but remains below the post-election high of 14.6 in early March. With Energy's forward revenues and earnings up from cyclical lows in early 2016, its valuations are coming back to Earth; its P/S ratio of 1.25 compares to a record high of 1.56 in May 2016, and its P/E of 26.7 is down from a record high of 57.5 then. Higher y/y margins occurred for only 7/11 sectors in 2016, but margins are expected to improve in 2017 for all but Real Estate and Utilities. However, Real Estate's forecasted margin should improve as the year progresses when gains on property sales are included in the forecasts. Consumer Staples had its forecasted 2017 margin improve 0.1ppt w/w. Here's how the 11 sectors rank based on their current 2017 forecasts: Information Technology (to 20.1% in 2017 from 19.2% in 2016), Real Estate (18.6, 25.3), Financials (15.6, 14.3), Telecom (11.3, 11.2), Utilities (11.1, 11.4), S&P 500 (10.6, 10.1), Health Care (10.5, 10.3), Materials (9.8, 9.4), Industrials (9.2, 8.9), Consumer Discretionary (7.4, 7.2), Consumer Staples (6.6, 6.4), and Energy (3.9, 1.1).

US ECONOMIC INDICATORS

Merchandise Trade ([link](#)): The real merchandise trade deficit widened in July, though early data suggest that trade could give a small boost to GDP growth this quarter. The gap widened from \$60.8 billion in June to \$61.6 billion in July, below the average monthly deficit of \$62.4 billion during Q2. In July, real exports slipped 0.6%, while real imports were unchanged; both remain in record territory. July's contraction in exports was led by sizable declines in autos (-4.4%) and consumer goods ex autos (-4.2), while declines in industrial supplies (-0.5) and food (0.2) were fractional; exports of capital goods ex autos rose 2.4%, building on June's 1.9% advance. As for July imports, it was a mixed picture, with imports of capital goods ex autos (2.3) and food (1.1) rising and autos (-2.6) and industrial supplies (-0.4) falling; consumer goods ex autos imports were flat with June.

GLOBAL ECONOMIC INDICATORS

Global Composite PMIs ([link](#)): Global economic activity in August grew at its fastest pace since April 2015. The J.P. Morgan Global Composite Output Index (C-PMI) climbed from 53.6 in July to 53.9 in August, with the M-PMI (to 53.1 from 52.7) and NM-PMI (54.1 from 53.7) both accelerating to new cyclical highs. Developed markets (54.7 from 54.4) continued to outperform emerging markets (52.1 from 51.5), though the latter accelerated for the first time in three months. The US C-PMI (55.3) increased for the fifth month to its highest reading since the start of the year, while the Eurozone (55.7) saw another solid gain in output, matching July's pace. Within the Eurozone, Ireland's C-PMI (58.2) once again showed the strongest growth, followed by Germany (55.8), Italy (55.8), Spain (55.3), and France (55.2)—which all showed similar rates. The UK (54.0) showed a slight easing of growth last month, while Japan's (51.9) was slightly faster. In the emerging economies, C-PMIs for Russia (54.2) and China (52.4) saw faster growth than in July, while growth in Brazil (49.6) and India (49.0) continued to contract, though both moved closer to the breakeven point of 50.0.

Global Non-Manufacturing PMIs ([link](#)): Service-sector growth in August expanded at the fastest pace in two years, with the J.P. Morgan NM-PMI jumping from 53.7 to 54.1. Activity expanded across the vast majority of nations covered; the main exceptions were India (47.5) and Brazil (49.0), which continued to contract. Growth accelerated in the US (56.0), Ireland (58.2), and Germany (55.8), with the US the best in 21 months. Growth slowed in Italy (55.8), Spain (55.3), and France (55.2) though remained robust, while activity in the UK (53.2) and Japan expanded at the weakest rates in 11 and 6 months, respectively. Meanwhile, both Russia (54.2) and China (52.7) saw stronger growth in their service sectors.

US Non-Manufacturing PMI ([link](#)): The US service sector in August grew at its fastest pace in 21 months according to Markit's survey and accelerated again according to ISM's, after slowing to an 11-

month low in July. ISM's NM-PMI rebounded to 55.3 last month after sinking from 57.4 in June to 53.9 in July. Three of the four components—business activity (to 57.5 from 55.9), new orders (57.1 from 55.1), and employment (56.2 from 53.6)—accelerated last month, while the supplier deliveries (50.5 from 51.0) gauge edged lower. Markit's NM-PMI rose for the fifth month, from 52.8 in March to 56.0 in August—the highest since November 2015. According to the report, the acceleration in business activity was supported by the fastest expansion in new orders since July 2015, and was well above the long-run series average. Higher activity and new business prompted firms to increase their payrolls by the fastest pace in nearly two years. Meanwhile, business confidence remained upbeat last month, climbing to a seven-month high. On the price front, increases in input and output costs were the fastest in 26 and 35 months, respectively.

Germany Manufacturing Orders ([link](#)): Orders unexpectedly fell in July, though remain at record-high levels. The Ministry noted, “In the past three months, German companies have registered nearly as many orders as they did before the outbreak of the economic and financial crisis in 2008.” Bookings slipped 0.7% after jumping four of the prior five months by a total of 4.4%. July's decline reflected a 1.6% drop in domestic orders; foreign orders were unchanged during the month. Domestic demand for capital (-5.1%) and consumer (-1.5) goods orders contracted in July after rising 9.3% and 1.8%, respectively, in June; intermediate goods billings rose 2.4% after a 0.5% uptick the prior. Within foreign orders, a 0.6% gain in billings from outside the Eurozone offset a 0.9% drop in orders from within the Eurozone. The increase in the former was entirely driven by a 4.2% increase in capital goods billings, which more than offset declines in consumer (-7.7) and intermediate (-6.0) goods orders. The drop in foreign orders from within the Eurozone was driven by declines in capital and consumer goods orders of 1.6% and 0.7%; intermediate goods orders were flat.

Contact us by [email](#) or call 480-664-1333.

Ed Yardeni, President & Chief Investment Strategist, 516-972-7683
Debbie Johnson, Chief Economist, 480-664-1333
Joe Abbott, Chief Quantitative Strategist, 732-497-5306
Melissa Tagg, Director of Research Projects & Operations, 516-782-9967
Mali Quintana, Senior Economist, 480-664-1333
Jackie Doherty, Contributing Editor, 917-328-6848
Valerie de la Rue, Director of Institutional Sales, 516-277-2432
Mary Fanslau, Manager of Client Services, 480-664-1333
Sandy Cohan, Senior Editor & Webmaster, 570-775-6823

Copyright (c) Yardeni Research, Inc. Please read complete [copyright and hedge clause](#).