MORNING BRIEFING
December 6, 2018

Humans vs Machines

See the collection of the individual charts linked below.

(1) Still Grinchy. (2) The algos that stole Christmas. (3) Do algos ever capitulate? (4) When algos sell ETFs, they sell everything. (5) The big problem for next year's earnings is that the profit margin has been making record highs this year. (6) 2019's earnings seasons: Not much to look forward to. (7) News flash: Trump is a "Tariff Man." (8) The yield curve isn't a problem yet. (9) Diamonds in the coal mine. (10) Taking sides in oil markets tug of war.

Strategy I: Trigger-Happy Algos. It has undoubtedly been a Grinchy 11 weeks since the S&P 500 peaked at a record high on September 20. Uncertainty about trade wars, interest rates, and corporate earnings have combined to cause lots of sideways volatility this year. Two record highs were set this year, yet the S&P 500 is basically flat for the year at this point! Both record highs were followed by 10.2% corrections (*Fig. 1*). Given the abundance of negativity baked into stock prices after Tuesday's rout, the holiday spirit has moved us to look for anything that might bring some cheer.

Some market developments suggest this week's selloff may be closer to an end than a beginning. For starters, when the S&P 500 fell 90 points on Tuesday, 10 of its 11 sectors were in the red for the day and only six industries—including Electric Utilities, Gold, and Automotive Retail—in the black. When nearly everything wipes out—from the go-go tech names right down to safety sectors—it's often a sign that selling may be approaching an end.

Such widespread and intense selloffs tend to signal so-called "capitulation bottoms." Such bottoms don't always occur in just one day. The bottom of the latest correction in the S&P 500 occurred on November 23 (*Fig. 2*). It could be retested and even breached, of course. While Joe and I are looking for a bottom, others viewing the same chart of the S&P 500 see a major bull market top and are looking for the beginning of a bear market.

However, this year has seen a number of one-day meltdowns like Tuesday's. We strongly suspect that they were not driven by capitulating humans but engineered, literally, by computer-driven trading algorithms. The "algos" seem to have been triggered to sell by news events suggesting escalating trade wars and flattening yield curves. They tend to be programmed to sell large, liquid exchange-traded funds (a.k.a. ETFs), which amounts to a "sell-everything" trade.

So far this year, the market action suggests that shortly after algo-meltdown days, humans emerge from behind the rocks and start buying stocks that now look especially cheap. We expect they will be doing so again in coming days.

While Joe and I aren't capitulating either, we did curb our enthusiasm for earnings and stock prices at the end of October. The problem is that the S&P 500 profit margin spiked to a record high this year thanks mostly to the cut in the corporate tax rate (*Fig. 3*). At best, it might remain flat in 2019 if productivity makes an unexpected comeback. If so, then earnings growth will match revenues growth, which is bound to slow from around 8% annually this year to 4% next year, as we have previously explained (*Fig. 4*). Of course, if the profit margin declines next year, earnings growth could be closer to zero.

In any event, the Q4 earnings-reporting season conference calls at the start of the new year are likely to be full of even more downbeat guidance than Q3's calls were. The same can be said of all four of next year's earnings seasons, since earnings comparisons to this year's results will be in the low single digits.

Now let's have a closer look at Tuesday's stock-market action:

(1) *Trade*. Of course, humans have also been concerned about Trump's escalating trade war with China. It seemed to have been deescalated over the past weekend when the US and China agreed to a 90-day ceasefire. However, as the markets opened Tuesday, Trump began tweeting about his administration's trade negotiations with China: "President Xi and I want this deal to happen, and it probably will. But if not remember … I am a Tariff Man." Adding to the uncertainty, Larry Kudlow, Trump's top economic adviser, said Monday the truce would start on January 1, with the White House later saying the 90-day period began on December 1. The stocks of trade-sensitive industrials were hit hard, with Caterpillar falling 6.9% and Deere dropping 6.6%.

(2) *Yield curve.* Bank stocks were pummeled on Tuesday as longer-term US Treasury yields fell faster than did short-term yields, resulting in a flattening of the yield curve (*Fig. 5* and *Fig. 6*). The yield spread between the 10-year and 2-year notes dropped to 11bps, the lowest since June 15, 2007. The spread between the 5-year and 2-year turned negative by 1bp.

Are contraction and inversion of the yield spread all that worrisome? We don't think so, but ours is the minority view. The "official" yield curve spread is the one between the 10-year and the federal funds rate. It is one of the 10 components of the Index of Leading Economic Indicators (LEI). It fell to 79bps on Tuesday. So it remains well in positive territory, and therefore a positive contributor to the LEI! Ask us again what we think if and when it actually turns negative.

(3) *Economic growth.* A few stories in the financial press noted that the latest one-day meltdown was triggered by concerns about global economic growth. November's global M-PMI edged down to 52.0, the lowest reading since November 2016 (*Fig. 7*). These indexes were especially low in the Eurozone (51.8, the lowest since August 2016) and China (50.0, the lowest since July 2016). But the US M-PMI remained high at 59.3 last month. This series is highly correlated with the y/y growth in S&P 500 revenues per share (*Fig. 8*).

Strategy II: Searching for Diamonds amid Lumps of Coal. If you can bear to look at the latest bearish action, here's how the S&P 500 sectors performed during Tuesday's rout: Utilities (0.1%), Real Estate (-1.3), Consumer Staples (-1.6), Health Care (-2.3), Energy (-2.9), Materials (-3.1), Communication Services (-3.1), S&P 500 (-3.2), Tech (-3.9), Consumer Discretionary (-3.9), Industrials (-4.4), and Financials (-4.4) (*Table 1*).

The selloff over the past 11 weeks has left the S&P 500's industries and sectors far more reasonably priced compared to year-ago levels. The S&P 500's forward P/E has dropped 2.5 points to 15.9 (*Fig. 9*).

Here's where the S&P 500 sectors' forward P/Es stand as of the latest available data, on November 29, compared to a year ago: Real Estate (39.8, 39.9), Consumer Discretionary (20.0, 20,6), Consumer Staples (18.4, 19.5), Communications Services (16.9, 12.7), Utilities (16.7, 18.6), Tech (16.4, 18.8), Health Care (16.1, 16.7), S&P 500 (15.9, 18.4), Industrials (15.1, 19.0), Materials (14.6, 18.4), Energy (13.7, 25.1), and Financials (11.7, 14.8).

Some of the hardest hit areas of the market are showing faint glimmers of life. Specifically, the S&P 500 Homebuilders stock price index is one of the year's worst performers, down 30.5% ytd. However, since November 16, it has outperformed the S&P 500, rising 2.3% versus the broader index's 1.3% decline. Might the industry's outperformance be a short-lived, last hurrah? Certainly. But the fact that it coincided with the drop in the 10-year Treasury yield from 3.24% on November 8 to 2.91% as of Tuesday's close suggests otherwise. Lower mortgage rates will go a long way toward improving home affordability.

The S&P 500 Semiconductor Equipment industry also sold off early and hard this year. It's down 23.4% ytd, but up 0.2% since November 16. That return won't set the world on fire, but perhaps it's a start.

And finally, the dollar's sharp ascent may be over now that expectations for the Fed's rate-hiking have moderated. If so, the dollar's drag on international corporations' earnings could abate in the second half of 2019 (*Fig. 10*).

Energy: Tug of War. In a major about-face, the price of a barrel of Brent crude oil has dropped 28% to $62.08 in just nine weeks (*Fig. 11*). Among the numerous factors dragging it down are lowered expectations for global economic growth, which may be further reduced if US tariff squabbles with China don't end favorably. Understanding the direction of oil prices is further complicated by the lack of pipeline availability in the US, the death of a Saudi dissident, and the declining production rates of shale oil fields.

Ultimately, however, the price of oil is controlled by the largest producers: Saudi Arabia, the US, and Russia. Saudi Arabia needs oil prices to be high enough to fund its budget. We'd bet that it will cajole OPEC members into cutting production; less production today will mean more profits tomorrow. Let's take a look at developments in the oil patch:

(1) *Lots of meetings.* OPEC is scheduled to meet today, and its members have been trying to negotiate an oil production cut of "at least" 1.3mbd, according to a 12/3 Reuters article. It stated: "Russia's resistance to a significant production cut was so far the main stumbling block."

The reduction would come in the wake of production cuts of 325,000bpd planned for January by producers in Canada's province of Alberta, the first cuts they've had since the 1980s. There's a glut of stored oil in Alberta due to a shortage of pipeline capacity, a 12/4 Bloomberg article reported. "The province is working to buy rail cars as an alternative transport method," and there are three pipeline construction projects that will help move the oil to the coast over the long term.

(2) *Budgets matter.* With the price of Brent crude oil at $62.08 a barrel, many OPEC members will have gaping holes in their budgets. According to an 11/27 *WSJ* article, most OPEC members need Brent north of $70 a barrel to fund a balanced budget. Saudi Arabia needs $88 Brent oil, while Russia has more wiggle room ($53).

US shale producers have a much higher pain threshold. Most US frackers break even when oil is at $50 a barrel. But as a 12/4 *WSJ* article explained, breakeven levels don't include overhead costs or the cost of land, which can push the breakeven point to $55-$60 a barrel. While US shale producers can remain profitable at lower oil price levels, they depend on the capital markets to fund expansion and refinance existing debt. Capital markets have a funny way of being willing to lend money when it's not needed and being unwilling to lend in tough times when the capital is needed.

(3) *Politics play a leading role.* A supply cut by Saudi Arabia would be a no-brainer if it weren't for politics. President Trump has made crystal clear his desire for low oil prices, equating them to a big tax cut for US consumers. Normally, we wouldn't expect OPEC to bow to entreaties from a US president. But Trump is one of the few supporters of Saudi Arabia after the Saudi's Prince Mohammed bin Salman had dissident Saudi journalist Jamal Khashoggi killed, according to the CIA.

President Trump has relied on Saudi Arabia and OPEC to keep their taps open after the US withdrew earlier this year from the 2015 Iran nuclear deal and restored sanctions on the country, the world's third largest producer of oil. However, when the sanctions were implemented in November, Trump granted exemptions to Iran's largest oil customers, China and India, along with Italy, Greece, Japan, South Korea, Taiwan, and Turkey. Doing so has resulted in a glut of oil.

(4) *Threats from Iran*. In the latest twist on Tuesday, Iranian President Hassan Rouhani threatened to halt oil shipments from other countries through the Gulf if the US moves ahead with plans to halt Iranian exports as part of sanctions. "If one day they want to prevent the export of Iran's oil, then no oil will be exported from the Persian Gulf," said Rouhani, according to a 12/4 Reuters article.

(5) *Threats from Congress.* Congress is reportedly considering a bill that would open the door to sue OPEC under US antitrust laws. Historically, former US presidents have opposed similar legislation, but a 12/4 CNBC article suggested President Trump might support it given his desire for low oil prices. A bill is unlikely to be completed before Congress recesses, but next year is another matter.

Separately, Qatar, one of OPEC's smallest producers, quit the organization this week, citing plans to focus on gas production instead of oil and disavowing any linkage to the 18-month political and economic boycott of the country by Saudi Arabia and three other Arab states.

(6) *Looking ahead.* OPEC may want to reduce oil inventories today before US pipeline projects are completed in late 2019 and 2020. The lack of pipeline capacity in the Permian Basin has been constraining production growth in the region. There is 3.1mbd of pipeline takeaway capacity plus another 300,000bpd of local refining capacity, according to an 8/27 OilPrice.com article. At the time the article was written, the Permian was already producing about 3.4mbd.

S&P Global Platts estimates 2.6mbd of pipeline capacity will come online by 2020 and another 1mbd is under consideration. Some of the additional pipeline capacity will increase the ability of shale producers to get their oil from the well head to ships for export.

There are some extremely optimistic forecasts about just how much oil can be pumped from the rocks in the Permian Basin. One comes from Will Giraud, executive vice-president of Concho Resources, one of the leading Permian producers. He "told investors last month: 'I think there are several more years of very high growth, and it's likely that the Permian gets into the 5m-6m or maybe even 7m b/d of production and then sustains that for a decent period,'" a 12/4 *FT* article reported.

Offsetting increased production are the high depletion rates that fracking wells experience. The oil produced by fracking wells drops more quickly than the oil produced by conventional wells. Frackers must drill new wells just to keep their production static and offset production declines at older wells. According to a November report by the US Energy Information Administration, the decline rate at older wells is expected to be greater in December 2018 than it was in the same month last year. However, more total oil is being produced because more wells are pumping oil this year than were pumping last year. Just how long oil companies can keep that hamster wheel turning is up for debate.

(7) *Downward revisions starting.* When wrote about oil in the 11/15 *Morning Briefing*, we expected downward revisions to earnings, and they have started to arrive. The S&P Energy sector is expected to have revenue growth of 9.7% and earnings growth of 21.6% in 2019 (*Fig. 12* and *Fig. 13*). That's down from the 10.6% and 28.0% growth rates expected when we wrote on the topic last month. If OPEC doesn't announce cuts this week, expect the downward revisions to keep rolling in.

CALENDARS

US. Thurs: ADP Employment 175k, Productivity & Unit Labor Costs 2.3%/1.1%, Jobless Claims 225k, Challenger Job-Cut Report, Merchandise Trade Balance -$55.0b, Factory Orders -2.0%, ISM & IHS Markit NM-PMIs 59.0/54.4, EIA Petroleum Status Report, Powell, Williams, Bostic. **Fri:** Nonfarm Payroll Employment Total, Private, and Manufacturing 190k/183k/18k, Unemployment & Participation Rates 3.7%/62.8%, Average Hourly Earnings 0.3%m/m/3.2%y/y, Average Workweek 34.5hrs, Consumer Sentiment Index 97.4, Consumer Credit $15.3b, Wholesale Trade Inventories 0.7%, Baker-Hughes Rig Count, EIA Natural Gas Report, Brainard. (Econoday estimates)

Global. Thurs: German Factory Orders -0.4%m/m/-3.1%y/y. **Fri:** Eurozone GDP 0.2%q/q/1.7%y/y, Germany Industrial Production 0.3%m/m/2.1%y/y, BOE/TNS Inflation Next 12 Months, Canada Employment Change & Unemployment Rate 10k/5.8%, Japan Leading & Coincident Indexes 104,8/116.8, China Foreign Reserves $3045.1b, Mexico CPI 4.6% y/y. (DailyFX estimates)

STRATEGY INDICATORS

Stock Market Sentiment Indicators (*link*): Our Bull/Bear Ratio (BBR) moved back above 2.00 this week after dipping below last week for the first time in just over two years. The BBR climbed to 2.17 this week after falling the prior two weeks from 2.26 to 1.86—which was the lowest reading since the week of November 8, 2016. Bullish sentiment rebounded to 46.7% following a two-week decline of -4.6ppts to 38.3%—which was the lowest percentage since late May 2016; it was as high as 61.8% nine weeks ago. Bearish sentiment climbed for the third week, from 19.0% to 21.5%, the highest reading since the final week of November 2016; it had fluctuated in a narrow band of 17.6% to 18.8% from early June through mid-October of this year. The correction count dropped to 31.8% after an eight-week jump of 21.5ppts to 41.1%—the highest percentage since late September 2015. The AAII Ratio climbed from 34.9% to 46.2% last week as bullish sentiment rose from 25.3% to 33.9% and bearish sentiment fell from 47.1% to 39.5%.

S&P 500 Earnings, Revenues & Valuation (*link*): S&P 500 consensus-per-share forecasts rose for forward revenues last week, but fell for forward earnings. Forward revenues rose to a record high, but forward earnings dropped 0.1% w/w to 0.7% below its record high in early November. As more weight is placed on the lower 2019 y/y growth expectations for revenues and earnings, their forward growth rates will continue to fall. Analysts expect forward revenues growth of 6.0% and forward earnings growth of 9.4%, compared to 5.7% and 9.5% a week ago. Forward revenues growth is down from an 80-month high of 6.3% at the end of February. Forward earnings growth is down to the lowest level since August 2016 from 16.9% in February. Prior to the passage of the Tax Cuts and Jobs Act (TCJA), forward revenue growth was 5.5% and forward earnings growth was 11.1%. Turning to the annual revenue growth expectations, the 2018 forecast was steady w/w at 8.8%, and 2019 improved to 5.8% from 5.5%. Looking at annual earnings growth, the 2018 forecast was steady w/w at 24.0% and dropped 0.2ppt to 8.3% for 2019. The forward profit margin dropped 0.1ppt w/w to 12.2%, and is now down 0.2ppt 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 ex-Financials forward revenue growth forecast rose 0.3ppt w/w to 6.2%, but forward earnings growth fell 0.2ppt to 9.0%. The S&P 500 ex-Financials forward profit margin remained steady w/w at

11.3% and is down from a record high of 11.5% in mid-September, but that's still up from 10.4% before the TCJA. As the market rallied sharply last week, valuations rose from multi-year lows. The S&P 500's forward P/E was up to 15.9 from 15.3, which had been the lowest since February 2016 and compares to a 16-year high of 18.6 at the market's valuation peak in late January. The S&P 500 price-to-sales ratio rose to 1.94 from 1.88, which had been

S&P 500 Sectors Earnings, Revenues & Valuation (*link*): Consensus forward revenues rose w/w for three of the 11 sectors and forward earnings rose w/w for 5/11 sectors. Financials, Health Care, and Industrials had both measures rise w/w. Forward revenues and earnings are at or around record highs for 4/11 sectors: Consumer Discretionary, Health Care, Industrials, and Tech. Forward margins are at record highs for 8/11 sectors, all but Energy, Health Care, and Real Estate. Energy's forward earnings has about tripled from the 18-year low in April 2016, but has likely peaked for now. Forward P/S and P/E ratios are now well below their 2018 highs for all sectors. Energy's valuations remain elevated relative to historical levels, but are slowly returning to normal now after soaring in 2016 when revenues and earnings collapsed. Energy's P/S ratio of 1.05 compares to a record high of 1.56 in May 2016, and its P/E of 13.7 is down from a record high of 57.5 then. Due to the TCJA, higher margins are expected y/y in 2018 for all sectors but Real Estate, but that sector's forward earnings includes gains from property sales and typically improves as the year progresses. Higher y/y margins are expected in 2019 for eight of the 11 sectors, all but Communication Services, Health Care, and Real Estate. During the latest week, the forward profit margin rose for Real Estate and edged lower for Energy, Health Care, and Industrials. Here's how the sectors rank based on their current forward profit margin forecasts: Information Technology (22.8%), Financials (19.1), Real Estate (15.6), Communication Services (14.8), Utilities (12.7), S&P 500 (12.2), Materials (10.9), Health Care (10.4), Industrials (10.1), Energy (7.6), Consumer Staples (7.5), and Consumer Discretionary (7.5).

US ECONOMIC INDICATORS

Auto Sales (*link*): Motor vehicle sales in November held at October's high for this year of 17.5mu (saar). Sales were mixed, with domestic light-truck sales climbing to 9.7mu (saar)—the highest reading since July 2005 (when they were boosted by aggressive discounts), while domestic car sales dipped to 4.0mu (saar) after increasing from a cyclical low of 3.8mu in August to a 10-month high of 4.2mu in October; these sales had been in a virtual freefall since peaking at 6.1mu (saar) during August 2014. Sales of imports ticked down to 3.8mu (saar) from 3.9mu the prior two months, holding just below May's peak of 4.0mu—which was the strongest pace since August 2009.

GLOBAL ECONOMIC INDICATORS

Eurozone Retail Sales (*link*): October retail sales were stronger than expected, but September sales were weaker than first reported. Sales rebounded 0.3% in October after falling -0.5% (from 0.0%) in September and rising 0.4% (0.3) in August. Sales of automotive fuel rose for the second month, by a total of 1.8%, after a two-month drop of -1.9%. Also in the plus column was spending on food, drinks & tobacco, which rebounded 0.6% after a -0.2% decrease and a 0.4% increase the prior two months. Meanwhile, spending on non-food products contracted for the second month by -0.1% m/m and -0.8% over the period. Over the past 12 months, retail sales rose 1.7% y/y, with spending on food, drinks & tobacco (2.3% y/y), non-food products (1.7), and automotive fuel (1.5) all above a year ago. October sales for three of the four largest Eurozone economies are available: Sales in Spain (1.4) and France (0.5) rose after falling -0.6% and -1.2%, respectively, in September, while sales in Germany contracted for the fourth straight month, by -0.3% in October and -1.8% over the period. Among the Eurozone economies for which data are available, the largest increases were recorded in Slovenia (7.9), Portugal (2.3), and Austria (1.6), the biggest decreases in Finland (-2.0) and Latvia (-1.1).

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, 570-775-6823