Yardeni Research

**MORNING BRIEFING**
**October 15, 2020**

## The Future of Semis, Banks & Cows

*Check out the accompanying chart collection.*

(1) Wind in semi sales' sails. (2) Analysts forecast semiconductor earnings rebound in 2021. (3) Shares have priced in lots of good news. (4) Q2 bank loan loss reserves may have peaked if Covid-19 cases plateau. (5) Low interest rates and less net interest income weigh on bank earnings. (6) Revenues from capital markets trading and underwriting save the day. (7) Old MacDonald had … factory-grown protein molecules? (8) Fans tout the environmental benefits of returning pastures to Mother Nature. (9) Impossible Foods' secret sauce: genetically altered yeast.

**Technology: Semis Sending Strong Positive Signal.** Semiconductor sales continued to rise through the end of the summer as demand for digital equipment of all varieties far surpassed the depressing economic impact of Covid-19. Worldwide sales of semiconductors rose 4.9% y/y in August to $36.2 billion, based on a three-month moving average. Sales were the strongest in the Americas with a 23.6% gain, followed by China (3.0%) and Asia Pacific/All Other (2.1). But some regions saw declines, including Japan (-1.4) and Europe (-10.1) (*Fig. 1*).

Looking ahead, y/y comparisons for semiconductor sales in the Americas will be tough from September to November, as those months last year brought a brief spike in sales before Covid-19 hit. Once it did, sales proceeded to fall from January to April.

Sales increases on a m/m basis were positive in all regions during August, the Semiconductor Industry Association reported. Sales rose m/m in Asia Pacific/All Other (5.6%), Europe (5.5), China (2.9), the Americas (2.6), and Japan (1.5).

Let's dig deeper into the outlook for semiconductor sales:

(1) *Analysts optimistic about semis future.* The semiconductor sales numbers are confirmed by data on the US industrial production of semiconductors and other electronic components, which rose in August for the third month to a new record high (*Fig. 2*). In addition, Wall Street analysts remain upbeat about the industry's future revenue and earnings growth. They forecast

S&P 500 Semiconductors revenue will rise 4.9% this year and 8.3% in 2021 (*Fig. 3*). Earnings are expected to drop slightly this year by 1.8%, but recover nicely in 2021 to 12.6% growth (*Fig. 4*).

For much of this year, the S&P 500 Semiconductors has been a top-performing industry. Since the start of the year through Tuesday's close, its stock price index is up 33.6%, and y/y the index has risen 54.2%, making it the ninth best performing of the industries we track (*Fig. 5*). Not surprisingly, there are many tech names among the top 10 performing S&P 500 industries y/y through Tuesday's close: Technology Hardware, Storage & Peripherals (95.3%), Internet & Direct Marketing Retail (84.0), Copper (76.1), Computer & Electronics Retail (70.0), Application Software (68.1), Gold (66.8), Systems Software (55.9), Air Freight & Logistics (55.5), Semiconductors (54.2), and Trucking (49.5) (*Table 1*).

(2) *Acquisitions proliferate.* Some of the semiconductor stocks have been helped by the numerous large acquisitions announced this year; investors' fingers must be crossed in hopes that they own the next target. Analog Devices announced plans in July to buy Maxim Integrated for more than $20 billion in stock. The deal combines two large analog chip companies. In September, Nvidia agreed to purchase Arm Holdings from Softbank for $40 billion. And last week, it was reported that Advanced Micro Devices (AMD) is in negotiations to buy Xilinx for more than $30 billion. Both Nvidia and AMD shares have had impressive runs over the past year, soaring 206.4% and 186.7%, respectively, versus 18.4% for the S&P 500.

(3) *Keep an eye on P/Es.* The biggest concern about the industry is valuation. The S&P 500 Semiconductor industry's forward P/E is 21.0, close to its highest levels of the past decade (*Fig. 6*). Now that many schools have purchased a computing device for each student and many people working from home have upgraded their PCs, investors might consider how much demand has been dragged forward from future years. The semiconductor industry's forward P/E levels don't leave much room for error.

**Financials: Bank Reality Check.** "The economy, stupid" are words presidential candidates have learned to live by. The phrase—coined by James Carville in 1992 when he was a strategist for then-presidential candidate Bill Clinton—is meant to keep campaigns focused on the economy because that's what voters care about.

The sentiment still holds true today, but the phrase might be tweaked to "It's Covid, stupid." The longer the disease lingers, the bigger its impact on the economy and the higher the odds that companies and consumers will default on their loans. So far, banks' Q3 loan losses and earnings largely have beat analysts' forecasts. But most banks' shares fell this week nonetheless, as bank leaders made clear that the Covid risk to loan portfolios looms. As if for emphasis, CEO warnings have come as the number of US Covid cases increases, two vaccine trials and a drug trial are halted, and an economic stimulus bill remains stymied in Congress.

Here's a brief look at what bank execs are saying:

(1) *Keeping an eye on loans.* So far, it looks like the huge loan loss reserves that banks set aside in Q1 and Q2 were large enough to compensate for expected loan losses (*Fig. 7*). Increases to reserves described in Q3 earnings reports have been extremely modest so far, but executives on the Q3 earnings announcement conference calls seemed cautious when discussing the future.

JPMorgan, for example, set aside only an additional $611 million for loan losses during Q3, down from the $10.5 billion added to reserves in Q2, for a total of $34 billion reserved for loan losses. CEO Jamie Dimon said that if the economy recovers, the bank might have $10 billion in excess reserves; but if a recession ensues, it might need to set aside and additional $20 billion in reserves.

Bank of America posted Q3 net income of $4.9 billion after setting aside $1.4 billion in loan loss reserves last quarter—far less than the $5.12 billion in Q2 and the $4.76 billion in Q1. On an optimistic note, CEO Brian Moynihan said in the earnings conference call that the bank believes its "reserve builds are behind us, which means the P&L impact of those loans should be in our financials already."

(2) *Capital markets save the day.* For the most part, commercial loan growth was tepid; however, banks with capital markets operations benefitted from higher trading and underwriting revenue. At Goldman Sachs, for example, trading revenue jumped 29% y/y and underwriting fees increased 60% y/y. The company's Q3 operating profit almost doubled, thanks to a jump in revenue in its market-making and other principal transaction units. Conversely, the company's provision for credit losses was only $287 million, a fraction of the $1.6 billion it reserved in Q2.

US bonds and equities sold since the onset of Covid-19 has soared. The 12-month sum of new corporate bonds sold jumped to $2.39 trillion in August, the highest pace since November

2007. New issuance of stocks soared also, to $267 billion in August, the highest pace on record (*Fig. 8*).

Investors tend to discount revenue increases from trading and underwriting because they can ebb and flow with the markets. They prize interest income, which is considered more stable. After surging earlier this year, banks' commercial and industrial loans outstanding have fallen to $2.7 trillion as of the September 30 week, down from a peak of $3.1 trillion during the May 13 week, as companies have repaid the loans they drew from their revolvers as insurance when Covid first spiked earlier this year (*Fig. 9*).

At the same time, falling interest rates have crushed banks' net interest margin, now at 2.81% in Q2 down from 3.48% as recently as Q4-2018 (*Fig. 10*). Those two trends mean that banks' net interest income, which peaked in Q4-2018 has been falling since (*Fig. 11*). At Bank of America, Q3 adjusted net interest income was $10.2 billion, down $733 million q/q and down $2.1 billion y/y.

**Disruptive Technologies: Mock Meats and Peak Cows.** Vegetarians by definition eschew eating meat, getting their daily nutrients mostly from veggies and fruits. As of 2018, their numbers were small; just 5% of American adults considered themselves vegetarians, according to a Harris Poll National Survey. Farmers raising cows, pigs, and chickens had little to fear. But there's a new method of "growing proteins" that doesn't require livestock. Instead, precision fermentation allows micro-organisms to produce complex molecules, like proteins, through a fermentation process.

If this method of creating proteins takes off, cows could be replaced by factories filled with vats brewing the molecules needed for dinner. And instead of farmers tending to their herds, there will be software engineers using artificial intelligence and top-notch computers to design delectable molecules that replicate the proteins we're used to eating but do a lot less damage to Earth.

While it may sound impossibly futuristic—and far from appetizing—privately held Impossible Foods already uses the process to make the proteins in its Impossible Burger, currently available at grocery stores including Kroger, Target, and Walmart and cooked in Burger King restaurants. Let's take a look at what the future may hold for our burgers:

(1) *Disrupting cows.* Tony Seba, co-founder of think tank RethinkX, is known for his futuristic thinking about technology-driven disruption. In the past, we've referred to his report about the disruption he expects from electric cars. Last year, he published a report co-authored by RethinkX Research Fellow Catherine Tubb that looks at how the production of proteins through fermentation and other non-traditional methods could lead to the disruption of industrial farming. If they're correct, the impact reaches well beyond the farmer, hurting companies that produce fertilizers, farm equipment, and livestock pharmaceuticals, as well as impacting farm property values and lenders to the farmers.

Highlights of the report include the following predictions: Demand for cow products will fall 70% by 2030; about 60% of land currently used for livestock and feed production will be freed up for other uses by 2035 (that represents a quarter of US land); the price of this "modern food" will be half as much as traditional animal products; and revenue in the US beef and dairy industries will be cut in half by the start of the next decade.

(2) *Environmental benefits.* Many of those involved with precision fermentation are hoping this new method of food production will help the environment by allowing land that's now used for animal grazing to return to its natural state. It would reduce the amount of methane expelled by animals. And it would reduce the carbon dioxide produced during every stage of meat processing, starting with the need to mine for the ingredients in the fertilizer that helps to grow the crops that are used in animal feed.

These new food factories could be located closer to where the food is consumed than are farms. This distributed manufacturing model theoretically would reduce the energy used and environmental damage caused by transporting food from the farm to the table.

Impossible Foods' website claims that producing its burger uses 87% less water, uses 96% less land, and emits 89% fewer greenhouse gasses into the atmosphere compared to producing a beef burger from a cow.

(3) *The Impossible recipe.* A key ingredient in the Impossible Burger is "heme," a molecule that occurs naturally in human blood, contains iron, and gives meat its meaty taste. Heme is also in soybean roots. Impossible Foods makes heme artificially by extracting the DNA for heme protein from soybean roots and inserting that DNA into genetically engineered yeast. The yeast then is fermented, but instead of producing alcohol as it multiples, the DNA-altered yeast produces heme. The heme then is used in the Impossible Burgers.

Impossible Foods expanded its portfolio earlier this year by introducing pork- and sausage-like products. They are made using the same fermentation method that's used to create the beef in Impossible Burgers, but different seasonings are used in the pork. Pork is actually the most widely consumed meat worldwide. Nearly 1.5 billion pigs are killed for food each year, a number that has tripled in the last 50 years, according to the World Economic Forum. The company is working on the production of steak next.

(4) *Beyond genetic modification.* Not everyone is using genetic modification to produce meat-free burgers. Beyond Burgers uses plant products in its burgers. The company's shares, which were priced at $25 in its 2019 IPO, closed Tuesday at $187.62.

Thai company NR Instant Produce turns jackfruit into a mock pork product, an October 13 Bloomberg article reports. And Solar Foods, a private company based in Finland, uses fermentation to produce a protein powder it calls "Solein." The company uses a natural bacteria that consumes carbon dioxide and hydrogen to produce the protein powder. The hydrogen is produced through water electrolysis that uses hydropower as its power source. The protein powder has little taste and would be added to foods to increase their protein content. Solar Foods is targeting consumers interested in healthy, sustainable diets.

Cows, mooove over.

## CALENDARS

**US:** **Thurs:** Initial & Continuous Jobless Claims 825k/10.7m, New York & Philadelphia Fed Manufacturing Indexes 15/14, Import & Export Prices 0.3%/0.4%, EIA Natural Gas Inventories, IMF/World Bank Virtual Annual Meeting, Quarles, Kashkari. **Fri:** Retail Sales Total & Ex Autos 0.7%/0.5%, Consumer Sentiment Index 80.5, Headline & Manufacturing Industrial Production 0.5%/0.7%, Capacity Utilization 71.9%, Business Inventories 0.4%, Baker-Hughes Rig Count, IMF/World Bank Virtual Annual Meeting, Williams. (DailyFX estimates)

**Global:** **Thurs:** France CPI 0.1% y/y, European Union Council Meeting, Lagarde, Lane. **Fri:** European Car Registrations, Eurozone Headline & Core CPI -0.3%/0.2% y/y, EU Council Meeting. (DailyFX estimates)

## STRATEGY INDICATORS

**Stock Market Sentiment Indicators** (*link*): The Bull/Bear Ratio (BBR) this week rose for the first time in six weeks, climbing to 2.67 after sliding from 3.75 (highest since January 2018) to 2.35 the prior five weeks. Bullish sentiment has increased 5.1ppts (to 56.6% from 51.5%) the past three weeks, while bearish sentiment slipped to 21.2% this week after climbing the prior four weeks from 16.2% to 23.2%—which was the highest percentage since the June 2 week. The correction count held at 22.2% this week after falling the previous two weeks from 29.1%. The AAII Ratio advanced for the second week last week from 35.1% to 47.1%, as bullish sentiment rose from 24.9% to 34.7% and bearish sentiment fell from 46.0% to 39.0% over the two-week period.

**S&P 500 Q3 Earnings Season Monitor** (*link*): With over 7% of S&P 500 companies finished reporting revenues and earnings for Q3-2020, revenues are beating the consensus forecast by a whopping 3.8%, and earnings have crushed estimates by 23.6%. The large surprises are primarily due to a lack of financial guidance from the companies that analysts follow. At the same point during the Q2 season, revenues were 3.3% above forecast and earnings beat by 11.2%. For the 36 companies that have reported through mid-day Wednesday, aggregate y/y revenue and earnings growth and the percentage of companies reporting a positive revenue and earnings surprise have improved from their Q2 measures. The small sample of Q3 reporters so far has a y/y revenue decline of 0.6%, and earnings are down 11.0%; those results mark a big recovery from Q2, the worst quarter since Q1-2009 during the financial crisis. Nearly 89% of companies are reporting a positive earnings surprise, and 83% have beaten their revenues forecast. More companies are reporting positive y/y earnings growth in Q3 (69%) than are reporting positive y/y revenue growth (58%). These figures will change markedly as more Q3-2020 results are reported in the coming weeks, but y/y revenue and earnings growth results are expected to remain negative. Now more than ever, what companies say about the state of their business and their plans to ride out the Covid-19 crisis will be investors' main focus. Few companies are providing guidance about their future financial periods.

**S&P 500 Earnings, Revenues, Valuation & Margins** (*link*): The rapid pace of Covid-19 estimate cuts has turned into a V-shaped recovery as analysts play catch-up from their lowball estimates prior to the better-than-expected Q2 earnings season. Consensus S&P 500 forecasts previously had been falling at rates paralleling the declines during the 2008-09 financial crisis. They were steady during the latest week, though. Forward revenues is at its highest level since early April and is now just 3.7% below its record high in mid-February. Forward earnings is also at its highest level since early April and is now 11.1% below its record high in early March. Forward revenues growth remained steady at a 21-month high of 6.2%. That's just 0.1ppt below its seven-year high of 6.3% in February 2018, but is up from 0.2% in April, which was the lowest reading since June 2009. However, forward earnings growth ticked down 0.3ppt to 17.4% from a 10-year high of 17.7%. Forward earnings growth is up 23.0ppts from its record low of -5.6% at the end of April. Analysts still expect revenues to decline 4.1% y/y in 2020 and rise 8.1% in 2021 compared to the 4.3% reported in 2019. Analysts expect an earnings decline of 19.1% y/y in 2020 and a 26.1% gain in 2021 compared to a 1.4% rise in 2019. The forward profit margin was unchanged at a six-month high of 11.1%. That's up 0.8ppt from 10.3% during April and May, which was the lowest level since August 2013. It's still down 1.3ppt from a record high of 12.4% in September 2018. Analysts expect the profit margin to fall 1.8ppt y/y in 2020 to 9.7%—from 11.5% in 2019—and to improve 1.6ppt y/y to 11.3% in 2021. Valuations rose for the first time in four weeks. The S&P 500's weekly forward P/E rose 0.4pt w/w to 21.7. That compares to 23.1 in early September, which was the highest level since July 2000 and up from a 77-month low of 14.0 in mid-March. The S&P 500 price-to-sales ratio gained 0.04pt w/w to 2.40. That's down from a record high of 2.53 at the beginning of September and up from the 49-month low of 1.65 in mid-March.

**S&P 500 Sectors Earnings, Revenues, Valuation & Margins** (*link*): Last week saw consensus forward revenues rise w/w for all 11 S&P 500 sectors. Forward earnings also rose broadly w/w for all sectors except Real Estate. Due to the sharp decrease in forward earnings this year, forward P/E ratios for nearly all sectors now are back above their recent record or cyclical highs prior to the bear market. Tech and Utilities are the only sectors now expected to have improved profit margins in 2020, whereas back in early March eight sectors were expected to see margins improve y/y. During 2019, just two sectors' margins improved y/y: Financials and Utilities. The forward profit margin rose to record highs during 2018 for 8/11 sectors, all but Energy, Health Care, and Real Estate. Since 2018, it has moved lower for nearly all the sectors. In the latest week, the forward profit margin moved higher for eight sectors, was unchanged for Tech and Utilities, and dropped again for Real Estate. Here's how the sectors rank based on their current forward profit margin forecasts versus their highs during 2018: Information Technology (22.1%, down from 23.0%), Financials (14.5, down from 19.2), Utilities (14.2, record high), Communication Services (13.8, down from 15.4), Real Estate (13.3, down from 17.0), S&P 500 (11.1, down from 12.4), Health Care (10.6, down from 11.2), Materials (10.0, down from 11.6), Industrials (8.4, down from its record high of 10.5% in mid-December), Consumer Staples (7.4, down from 7.7), Consumer Discretionary (6.2, down from 8.3), and Energy (2.4, down from 8.0).

**S&P 500 Sectors Forward Revenues and Earnings Recovery from Covid-19 Trough** (*link*): The S&P 500's forward revenues and earnings, as well as its implied forward profit margin, bottomed at cyclical lows on May 28 after 14 weeks of Covid-19 declines. Since then, S&P 500 forward revenues has risen 4.7%, forward earnings has gained 12.9%, and the forward profit margin has risen 0.8pt to 11.1%. Eight of the 11 sectors posted new highs last week in either their forward revenues, earnings, or profit margin. Real Estate's margin fell to an eight-year low in the latest week. Here's how the sectors rank by their changes in forward revenues and forward earnings since May 28: Consumer Discretionary (forward revenues up 6.6%, forward earnings up 40.4%), Information Technology (6.1, 8.1), Industrials (5.9, 19.8), Communication Services (5.6, 8.6), Financials (5.3, 14.1), Materials (5.3, 19.1), S&P 500 (4.7, 12.9), Health Care (3.7, 9.7), Energy (2.7, 320.9), Consumer Staples (2.3, 5.4), Real Estate (0.4, -7.3), and Utilities (-1.8, 0.8).

**MSCI Countries & Regions Forward Revenues and Earnings Recovery from Covid-19 Trough** (*link*): The forward revenues and earnings for the MSCI World ex-US index appears to have bottomed at cyclical lows on July 30 after 23 weeks of Covid-19 declines. Since then, the MSCI World ex-US forward revenues has risen 2.0%, forward earnings has gained 6.4%, and the forward profit margin has risen 0.2ppt to 7.1%. Looking at the revenue and earnings for the MSCI regions, all but EM Latin America's revenues has risen since then. Here's how the regions rank by their forward revenues changes and forward earnings changes since July 30: EM Asia (forward revenues up 4.7%, forward earnings up 7.3%), Emerging Markets (3.6, 7.7), United States (2.9, 7.1), All Country World (2.1, 6.5), World ex-US (2.0, 6.4), EAFE (1.0, 5.3), Europe (0.9, 6.2), EMU (0.7, 6.8), and EM Latin America (0.5, 15.8).

## US ECONOMIC INDICATORS

**Producer Price Index** (*link*): The Producer Price Index for final demand rose in September for the fifth successive month, by 0.4%; over the five months through September, final demand rose a total of 2.0%, which followed a three-month slide of 2.2%. The yearly rate (0.4% y/y) moved into positive territory for the first time since March. Prices for final demand goods rose 0.4% last month and 3.4% over the five months through September, pushing the yearly rate up steadily from -5.2% in April to -1.0% y/y in September. Final demand services rose for the fourth time in five months, up 0.4% m/m and 1.3% over the five months through September, with its yearly rate accelerating from -0.1% in June to 1.1% y/y in September. In the meantime, there's still deflation in the pipeline on a y/y basis, though prices have moved higher in recent months, pushing y/y rates toward zero: Intermediate goods prices fell 1.5% y/y in September, easing for the fifth month from April's -7.6%, which was the lowest since October 2015 (its 17th consecutive negative reading). Crude prices fell 5.4% y/y (its 21st consecutive negative reading), narrowing from April's -28.7%—which was the steepest decline since September 2009.

## GLOBAL ECONOMIC INDICATORS

**Eurozone Industrial Production** (*link*): The bounce back from the COVID-19 lockdown was still going strong in July, though the rebound slowed in August. Output climbed 0.7% in August after a record-breaking 29.4% increase during the three months ending July—averaging monthly gains of 9.0% over the period. Production is within 5.8% of its pre-pandemic level; production had plummeted 27.7% during the two months through April. Here's a look at how the main industrial groups fared during the four months through August and where they stand relative to their pre-pandemic levels: consumer durable goods (+110.3% & +1.7%), capital goods (+50.7 & -10.5), intermediate goods (+27.3 & -6.3), consumer nondurable goods (+11.4 & -5.1), and energy (+10.0 & +0.2)—with capital goods and consumer nondurable goods production taking a step back in August for the first time in four months. Here's the same exercise for the top four Eurozone economies: Italy (+76.6% & +0.4%), France (+42.9 & -6.4), Spain (+43.6 & -3.8), and Germany (+24.2 & -11.6). Looking ahead, September's IHS Markit M-PMI showed manufacturing activity in the Eurozone was the strongest in over two years, climbing from 51.7 in August to 53.7 in September—the highest since August 2018—with M-PMIs in Germany (56.4) and Italy (53.2) the highest in 26 months and 27 months, respectively. According to the report, solid gains were seen in both the consumer and intermediate goods categories in the overall Eurozone, but both lagged investment goods, where growth was the strongest in over two years.

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