MORNING BRIEFING
July 9, 2020

TGI Thursday: Accentuating Some Positives

Check out the accompanying chart collection.

(1) Good to see Americans on the road again. (2) Surprising surge in Citi's Economic Surprise Index. (3) S&P 500 forward earnings starting to rebound. (4) Improvement in worldwide semi sales expands to US and Japan. (5) Nvidia and AMD power S&P 500 Semiconductors index higher. (6) Some positive news on the semiconductor earnings front. (7) Another chip manufacturer considers expanding its US manufacturing. (8) TuSimple continues developing its autonomous trucks, while others have tougher road.

US Economy: Sun Shining Through the Clouds. Here is an update on one of our favorite upbeat economic indicators, the four-week average of gasoline usage in the US. As a result of the lockdowns, it plunged 43% from the March 13 week through the April 24 week, when it bottomed at 5.3mbd. Since then through the July 3 week, it is up 60% to 8.5mbd (*Fig. 1*). It needs to rise another 14% to get back to a normal 9.7mbd pace of fuel consumption. It currently seems to be on the road to doing just that in coming weeks, though a slowing of state re-openings could place some roadblocks in the way of this indicator's road to recovery.

Admittedly, gasoline usage may be overstating the extent of the economic recovery if more people are choosing to return to work by car rather than by taking public transportation. Then again, lots of people who have the option continue to work from home. In addition, very few Americans are likely to be vacationing overseas this summer. That means that more of them are likely to be taking driving vacations within the US, but that would be a positive for the US economy.

Here is another happy-go-lucky indicator: The Citigroup Economic Surprise Index soared to a record 221.3 on Tuesday, July 7 (*Fig. 2*). It is up from a record low of -144.6 on April 30.

Here's more good news: S&P 500 forward revenues, forward earnings, and the forward profit margin continued to edge higher during the July 2 week, as they have been doing for the past seven weeks (*Fig. 3*). This strongly suggests that actual S&P 500 revenues, earnings, and the profit margin all bottomed during Q2 and should be moving higher during Q3. Seems like the stock market has been anticipating this development since it bottomed on March 23. TGIT!

Strategy: Worst Behind Semis? Semiconductor sales are proving themselves to be relatively resilient in this services-led recession. Worldwide sales of semiconductors for May, based on a three-month moving average, rose 5.8% y/y and 1.5% m/m, according to a July 3 press release from the Semiconductor Industry Association. That's an improvement from April, when worldwide semi sales rose 6.1% y/y but fell 1.2% m/m. Here's a look at some of the report's details and the latest industry dynamics:

(1) *Improvement spreading geographically.* In April, China was the only geographic area that saw a m/m increase in semiconductor sales. By May, sales gains were showing up in Japan and the Americas in addition to China. Here are the m/m sales results by region in May and in April: China (5.8% in May, 2.1% in April), Japan (2.8, -0.9), Americas (1.9, -1.1), Asia Pacific/All Other (-1.7, -3.1), and Europe (-6.5, -7.6) (*Fig. 4*).

The same press release reported that the World Semiconductor Trade Statistics organization forecasts worldwide semiconductor sales growth of 3.3% y/y in 2020 and 6.2% in 2021. Their 2020 tally includes a 12.8% increase in the Americas, a 2.6% increase in Asia Pacific, a 4.1% decrease in Europe, and a 4.4% decline in Japan.

(2) *Market moved ahead of the results.* As is often the case, the stock market sniffed out the industry's improvement ahead of the report. The S&P 500 Semiconductors stock price index is up 10.0% ytd through Tuesday's close, and the S&P 500 Semiconductor Equipment stock price index is up 7.9% over the same period. Both indexes are about 2% below their highs earlier this year (*Fig. 5* and *Fig. 6*).

Much of the ytd gain in the S&P 500 Semiconductors index is attributable to two of its largest stocks: Nvidia, up 67.8% ytd, and AMD, up 15.4%. Most of the industry's other members are up or down in the low single digits. Nvidia's and AMD's chips are found in gaming consoles and data center servers that power the Cloud. Both areas have been helped by the many hours that people have spent working and playing at home due to COVID-19. The rally in Nvidia's shares has inflated the company's market capitalization to just a smidge below industry veteran Intel's market cap.

(3) *Analysts' expectations.* After declining for much of the past year, analysts' 2020 revenue and earnings expectations for the S&P 500 Semiconductors industry started increasing again in early May. Revenue is expected to inch up 2.1% this year and jump 9.6% in 2021 (*Fig. 7*). Meanwhile, earnings are expected to tumble 7.1% this year and to rebound by 18.2% in 2021 (*Fig. 8*).

Individual chip companies have had positive earnings news of late. Most recently, Samsung Electronics forecast Q2 operating profit will rise 22.7% y/y to 8.1 trillion South Korean won and revenue will fall 7% y/y to 52 trillion won. The company's forecasts—which include an unspecified one-time gain from the sale of its display business—beat analysts' forecasts for 6.3 trillion won in operating profit and 50.3 trillion in revenue, a July 6 *WSJ* article reported. The strength in the company's chip business is expected to have more than offset weakness in smart phone sales.

Last month, Xilinx raised its guidance for FY-Q1 ending June 27. The company now forecasts quarterly revenue of $720-$734 million, above the previous range of $660-$720 million. "While we have seen some Covid-19 related impacts during the June quarter, our business has generally performed well overall, with stronger than expected revenues in our Wired and Wireless Group and Data Center Group more than offsetting weaker than expected revenues in our consumer-oriented end markets, including automotive, broadcast, and consumer. A portion of the revenue strength in the quarter was due to customers accelerating orders following recent changes to the U.S. government restrictions on sales of certain of our products to international customers," said CEO Victor Peng in a June 29 press release.

The industry's forward profit margin has fallen from an all-time peak of 32.1% in August 2018 to a recent 27.9% (*Fig. 9*). Its forward P/E has climbed to 18.5, which is relatively elevated compared to the last decade but could weaken as earnings recover to cyclical highs (*Fig. 10*).

(4) *More US semi manufacturing.* As we discussed in the June 4 *Morning Briefing*, the Trump administration has focused on increasing semiconductor manufacturing in the US. And it looks like manufacturers are nibbling, with some considering building more US capacity, especially if the US offers financial assistance.

Last month, GlobalFoundries, the world's third-largest semiconductor contract manufacturer, said that it could expand production at an existing US plant and, in a later phase, could build a new plant next to its first plant, a June 24 Reuters article reported. CEO Tom Caufield said expansion would depend on customer demand and the Senate's pending $22.8 billion aid package to help semiconductor manufacturers expand their presence in the US. "A partnership with the U.S. can accelerate that capability. ... What may take us five years, we can accelerate to two years," he told Reuters.

(5) *Tapping a hot market.* China's Semiconductor Manufacturing International Corp. (SMIC) is planning a $6.6 billion of stock offering that could be upsized to roughly $7.5 billion, a July 6 *WSJ* article reported. The company said it will use the funds for a chip production and research site, research and development, and working capital.

Just like the US, China is looking to bolster its chip-manufacturing abilities, especially after the Trump administration banned Huawei from buying US parts last year. Investors apparently see benefit: SMIC shares have tripled this year versus a 2.6% ytd decline for the S&P 500. However, a July 6 *WSJ* article warned that the company's technology is about five years behind the competition, and the company depends on US manufacturing equipment that it may not be able to purchase in the future.

Disruptive Technology: Trucking Along Autonomously. The breathless headlines about autonomous trucking—and autonomous driving in general—have been catching their breath over the past year. So news that TuSimple, an autonomous trucking company, was expanding its trucking routes caught our eye. Its progress stands in sharp contrast to news of layoffs and closings at other autonomous trucking operations. Let's take a quick look at the industry, which appears to be entering its teenage years:

(1) *Making progress.* TuSimple still has humans sitting behind the wheel of its autonomous trucks, but it's making progress toward driverless operations. A July 1 press release stated that the company—which already operates on routes between Phoenix, Tucson, El Paso, and Dallas—will expand this year to the Dallas Triangle: Dallas, Houston, and San Antonio.

By 2022, the company hopes to offer routes throughout the South, from Los Angeles to Jacksonville, Florida. And by 2023-24, it aims to offer driverless operations nationwide. The company typically runs its trucks between depots outside of city centers, avoiding congestion and leaving the trickier driving in local traffic to humans. It's also starting in the Southwest, where flat roads (no mountains) and good weather make for easier driving.

TuSimple's partnerships and investor base are impressive. It has been working with U.S. Xpress, a trucking company that's expanding the routes on which it uses TuSimple's trucks. The company also works with UPS and McLane Food Service, which makes deliveries to convenience stores, mass merchants, drug stores, and chain restaurants. TuSimple's equity investors include UPS and Nvidia.

TuSimple claims that its autonomous trucks can lower the cost of shipping goods by 30% and solve the problem of driver shortages, one of the industry's largest problems in recent years. TuSimple should make trucking safer because its trucks can "see" up to 1,000 meters away and react 15 times faster than humans. Because they can see so far ahead, the company's trucks can cut fuel costs by up to 15% a year by better regulating speed and lane positions.

(2) *Not everyone faring well.* Starsky Robotics, an autonomous truck company started in 2016, shut down in March. The company's autonomous truck was the first to do unmanned runs on a closed road (in 2018) and on a live highway (2019). Even so, it was unable to raise new funding.

In a March 19 post mortem on Medium.com, CEO Stefan Seltz-Axmacher wrote: "There are too many problems with the [autonomous vehicle] industry to detail here: the professorial pace at which most teams work, the lack of tangible deployment milestones, the open secret that there isn't a robotaxi business model, etc. The biggest, however, is that supervised machine learning doesn't live up to the hype. It isn't actual artificial intelligence akin to C-3PO, it's a sophisticated pattern-matching tool."

Seltz-Axmacher went on to say that the initial success at creating autonomous vehicles has been followed by much slower progress and exponential increases in costs. Instead of seeing exponential improvements in artificial intelligence (AI) tracking the Moore's Law curve, AI advances in this industry have plateaued, looking more like an S-curve. As a result, the current consensus is that self-driving cars are at least 10 years away, and not many startups can survive a decade before producing a product.

Before dismissing Seltz-Axmacher's take as sour grapes, consider that other autonomous trucking companies have also hit speed bumps. This spring, Kodiak Robotics laid off about 20% of its employees, blaming COVID-19's economic impact. It followed Zoox's suit: The developer of self-driving taxis recently laid off about 10% of its 1,000 employees.

Around the same time, Sweden's Einride announced that in addition to its autonomous electric truck effort, the company would begin developing electric trucks with human drivers, an April 22 article in VentureBeat reported. The company is working with grocer Lidl in the Stockholm region, where the electric trucks will transport goods from a central warehouse to stores in the area.

And before COVID hit, Daimler AG took a step back by shelving its autonomous taxi efforts to focus instead on autonomous long-haul trucks. A November 18, 2019 Bloomberg editorial attributed the move to the company's need to cut costs and inability to commit to a "large, capital-intensive project without a clear idea of what kind of first-mover advantage it might confer." In addition, no one has figured out how to make autonomous cars work, particularly in city traffic, and doing so will "take more than a couple of years."

So while there are still many companies trying to build autonomous cars and trucks, the field has gotten less crowded, and that should be a good thing for investors in the surviving companies.

CALENDARS

US: **Thurs:** Initial & Continuous Jobless Claims 1.375m/18.950m, Wholesale Inventories -1.2%, EIA Natural Gas Inventories, Bostic. **Fri:** Headline & Core PPI -0.2%/0.4% y/y, Baker-Hughes Rig Count. (DailyFX estimates)

Global: **Thurs:** Germany Balance of Trade €5.2b, Eurogroup Meeting, Buch. **Fri:** France Industrial Production 15.1%, Italy Industrial Production 22.8%, Canada Employment Change & Unemployment Rate 700k/12.0%, Baker-Hughes Rig Count. (DailyFX estimates)

STRATEGY INDICATORS

Stock Market Sentiment Indicators (*link*): The Bull/Bear Ratio (BBR) moved back above 3.00 this week, after a short-lived move above two weeks ago that was its first reading above that level in five months. The BBR recorded its 14th increase in the past 15 weeks, climbing to 3.15 this week (the highest since the January 21 week); it had dropped from 2.89 to 0.72 (the lowest since February 2016) over the prior five weeks. Bullish sentiment soared 27.6ppts (to 57.7% from 30.1%) over the past 15 weeks to its highest percentage since January. Meanwhile, bearish sentiment fell 23.4ppts (to18.3% from 41.7%)—indicating the fewest bears since January. The correction count has been in a volatile flat trend the past several weeks, fluctuating between 22.5% and 26.5%. It was at 24.0% this week. The AAII Ratio fell for the third week to 32.6% last week after increasing the prior five weeks from 31.0% to 47.4%. Bullish sentiment fell for the fourth week to 22.2% last week after rising the prior three weeks from 23.3% to 34.6%, while bearish sentiment dipped to 45.9% after rising the prior two weeks from 38.1% to 48.9%.

S&P 500 Earnings, Revenues, Valuation & Margins (*link*): The rapid pace of COVID-19 estimate cuts has abated and forecasts are showing increasing signs of recovery now. Consensus S&P 500 forecasts previously had been falling at rates paralleling the declines during the 2008-09 financial crisis. Forward revenues rose 0.7% w/w and is now 6.2% below its record high in mid-February. Forward earnings rose 2.2% w/w and is now 18.2% below its record high in early March. Forward revenues growth jumped 1.2ppts w/w to 2.9% after being steady for four weeks. Forward earnings growth surged 4.4ppts to 5.2%. Forward revenues growth is 3.4ppts below its seven-year high of 6.3% in February 2018, but is up from 0.2% in April, which is the lowest reading since June 2009. Forward earnings growth remains 11.7ppts below its six-year high of 16.9% in February 2018, but is up 10.8ppts from its record low of -5.6% at the end of April. Analysts expect revenues to decline 5.3% y/y in 2020 compared to the 4.2% reported in 2019. That's unchanged w/w and down 10.3ppts since the start of the year. Analysts expect an earnings decline of 22.9% y/y in 2020 compared to a 1.4% rise in 2019. Their 2020 growth rate dropped 0.1ppt w/w and is down 31.9ppt since the beginning of the year. The forward profit margin rose 0.2ppt w/w to a 1-week high of 10.5%. That's up from 10.3% during April and May, which was the lowest level since August 2013. It's still down 1.9ppt from a record high of 12.4% in September 2018. Analysts expect the profit margin to fall 2.2ppt y/y in 2020 to 9.3%—from 11.5% in 2019—and to improve 1.8ppt y/y to 11.1% in 2021. The S&P 500's weekly forward P/E was unchanged w/w at 21.5. It's down 0.9pt from 22.4 on 6/11, which had been the highest level since early 2002, and up from a 77-month low of 14.0 in mid-March. The S&P 500 price-to-sales ratio rose 0.03pt w/w to 2.25 and is down 0.08pt from its record high of 2.33 on 6/11. That's up from the 49-month low of 1.65 in mid-March and compares to the previous record high of 2.29 in mid-February.

S&P 500 Sectors Earnings, Revenues, Valuation & Margins (*link*): Last week saw consensus forward revenues and earnings rise w/w for all 11 S&P 500 sectors. 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. However, forward P/S ratios remain below their highs for most sectors. Utilities is the only sector expected to record higher margins y/y in 2020, down from eight expected to do so in early March. During 2019, just two sectors 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 rose for seven sectors and fell for none. Here's how the sectors rank based on their current forward profit margin forecasts versus their highs during 2018: Information Technology (21.8%, down from 23.0%), Real Estate (14.1, down from 17.0), Communication Services (13.3, down from 15.4), Utilities (14.1, record high), Financials (13.8, down from 19.2), S&P 500 (10.5, down from 12.4), Health Care (10.1, down from 11.2), Materials (9.0, down from 11.6), Industrials (7.7, down from its record high of 10.5% in mid-December), Consumer Staples (7.2, down from 7.7), Consumer Discretionary (5.0, down from 8.3), and Energy (1.3, 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 appears to have bottomed on May 28 after 14 weeks of COVID-19 declines. Since then, S&P 500 forward revenues has risen 1.9% and forward earnings has gained 3.9%. The profit margin rose 0.2pt w/w to a 10-week high of 10.5% from a cyclical low of 10.3%. On a sector basis, all but one sector are rising from the lows in their forward revenues, earnings, and profit margins. Only Communication Services remains at a new low in its forward profit margin. Here's how the sectors rank by their forward revenues change since May 28, along with their forward earnings change: Financials (revenues up 3.2%, forward earnings up 5.8%), Industrials (2.6, 7.1), Energy (2.6, 124.6), Communication Services (2.5, 1.9), Materials (2.2, 4.5), Consumer Discretionary (1.9, 9.7), Information Technology (1.9, 2.0), S&P 500 (1.9, 3.9), Health Care (1.2, 2.4), Consumer Staples (0.9, 1.7), Real Estate (0.1, -0.9), and Utilities (-0.7, 0.9).

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