MORNING BRIEFING
September 9, 2021

Transportation, Supply Chains & Carbon Trading

Check out the accompanying chart collection.

(1) Some retailers' shelves are looking a little sparse. (2) Watching the inventory-to-sales ratio slide. (3) Inventory stuck on trains, railroads, and boats. (4) More container ships are bobbing in the waters off the coast of Los Angeles than are at port. (5) Empty shipping containers are in the wrong locations. (6) Truck drivers still in short supply. (7) Prices throughout the shipping complex have surged. (8) Lots of optimism priced into railroad and trucking stocks. (9) The market for carbon credits may grow into a big business. (10) Traders, project developers, and verifiers all starting businesses.

Transportation: Tangled Supply Chains. One of the things we've enjoyed since getting vaccinated is shopping in stores. Over the last few months, whether we're shopping for food or clothes or home goods, it's been apparent that store shelves are sparsely stocked. A September 3 *New York Post* article noted that New York area amateur tennis players were causing a racket because they couldn't find new tennis balls to buy while inspired by the US Open.

These casual observations are confirmed by inventories-to-sales data. The real business inventories-to-sales ratio tumbled to 1.4 in June, down from the Covid-related spike to 1.8 last year (*Fig. 1*). The drop in the real inventories-to-sales ratio among retailers is even more dramatic, as it fell to 1.1 in June near a record low over the last two decades (*Fig. 2*). Excluding motor vehicles & parts dealers, the adjusted real inventory-to-sales ratio for retailers sank even further to 0.9, which means that retailers are selling goods faster than they can restock their shelves (*Fig. 3*). The ratio is lower than at any point since 1980.

Much of the blame for thin inventories rests on surging US demand and troubled global supply chains. Covid-19 has shut down Chinese ports from time to time, resulting in delays. Ships are lined up in the ocean waiting to dock at backed up US ports. Once unloaded, containers face more delays in overburdened rail yards and understaffed trucking companies. It has all led to skyrocketing shipping prices that few see abating anytime this year. Here's a look at the pickle logistics pros are in:

(1) *US imports booming.* US merchandise imports may have tumbled in early 2020, but they've more than recovered since then. In July, real US imports jumped 9.5% y/y, near an

all-time high (*Fig. 4* and *Fig. 5*). Some of the surge may reflect retailers restocking their shelves and/or shipping product to the US early for the holidays. Imports may also be jumping as companies rebuild inventories and edge away from just-in-time inventory management, which has proved problematic over the past year.

The surge in trade is also evident in Chinese export data. Chinese exports rose by 6.3% m/m in August despite a jump in Covid-19 cases in August (*Fig. 6*).

(2) *Traffic in shipping lanes.* The import data are confirmed by West Coast ports' container traffic, which also stands near record-high levels. The 12-month sum of 20-foot equivalent containers entering the Los Angeles and Long Beach ports hit 10.4 million in July, a record high. The problems are that the ports can't unload the goliath container ships fast enough and, once unloaded, the rail and trucking capacity isn't great enough to take the containers to their destination in a timely manner.

On September 7, 43 container ships sat in the waters outside of the Los Angeles and Long Beach ports waiting to be unloaded, down from a record peak of 47 on August 29, according to the Marine Exchange of Southern California's Twitter *account*. There are more ships at anchor than the 31 container ships at berth.

China's ports have also had their share of problems, entangled by a number of Covid-19 shutdowns this year. The export port Ningbo-Zhoushan was closed for two weeks last month after one person came down with Covid-19. The closure of the third-largest Chinese port caused a ripple effect of disruptions at other Chinese ports, like Shanghai and Hong Kong, as ship operators looked for alternatives to the Ningbo-Zhoushan port, a September 7 *WSJ* *article* reported. The closure followed the three-week closure of the Yantian port in Shenzhen in May after another Covid-19 outbreak occurred.

(3) *Shipping containers wanted.* The lowly shipping container is in hot demand. With imports flowing from China to the US, there are too many containers in the US and not enough in China. Additionally, a lack of workers is causing delays at ports, rail terminals, on truck routes, and at company warehouses, leaving full containers stacked up and waiting to be moved and unloaded.

The sheer volume of shipping containers due to rising trade volumes is only exacerbating bottlenecks. "Major U.S. ports were forecast to handle the equivalent of some 2.37 million imported containers in August, according to the Global Port Tracker report produced by Hackett Associates for the National Retail Federation. The figure is the most for any month in records dating to 2002, and NRF projects overall inbound volumes for the year will reach 25.9 million containers, measured in 20-foot equivalent units. That would break the record of 22 million boxes in 2020," a September 5 *WSJ* *article* reported.

(4) *Workers wanted too.* Bob Biesterfield, chief executive of freight broker C.H. Robinson Worldwide, said "shortages of truck drivers and warehouse workers are making shipping delays worse as the need to replenish inventories is at an all-time high," the WSJ reported.

The number of US truckers moving general freight has dropped to 430,000, down from 465,000 at the start of 2020. The scarcity of drivers has Walmart offering an $8,000 signing bonus for some drivers, an August 30 *FT* *article* reported.

(5) *Prices on the rise.* Prices throughout international supply chains have risen. Spot container shipping rates from Asia to the US West Coast are up 462% y/y, according to the Freightos Baltic Index, quoted in an August 26 *WSJ* *article*. The price of shipping a 40-foot container of games from Shanghai to Michigan cost $6,000-$7,000 before the pandemic. Now it could cost $26,000-$35,000, a board game inventor said in an August 30 *NYT* *article*.

A.P. Moller-Maersk CFO Patrick Jany noted on the company's August 8 earnings *conference call* that the shipping company's average freight rate increased by 59% in Q2, driven by demand across all regions and higher long- and short-term rates. In addition, total volumes for the quarter increased by 15%. The strong market should continue until at least the end of the year, as there's unmet shipping demand. But executives did warn that when disruptions end, prices could correct quickly.

The price of transporting freight by truck rose by 13.8 y/y in July, according to the Producer Price Index report (*Fig. 7*). This pricing strength is occurring even as the Truck Tonnage index appears to be rolling over from its recent March high (*Fig. 8*).

(6) *A look at transport sector stocks.* The S&P Transportation composite has risen 9.7% ytd through Tuesday's close, lagging the S&P 500's 20.3% return (*Fig. 9*). The index has been sliding since it peaked on May 7, when it was up 21.5% ytd. Its performance has been dragged down by Airlines, which have suffered from the resurgence of Covid-19, and by Railroads. Here's how the various industries in the S&P Transportation index have performed ytd: Trucking (45.8%), Air Freight & Logistics (11.5), Airlines (6.2), and Railroads (5.7).

There's a lot of optimism priced into the S&P 500 Trucking and Railroad industry indexes. The Trucking industry's forward earnings (i.e., the time-weighted average of consensus estimates for this year and next) represents expected growth of 20.2%, and its shares trade at 28.4 times forward earnings (*Fig. 10* and *Fig. 11*). While the S&P 500 Railroads index hasn't risen as sharply as its Trucking counterpart, it is near an all-time high. Its forward earnings suggest expected growth of 15.3%, and the index trades at a forward earnings multiple of 20.2 (*Fig. 12* and *Fig. 13*). When smooth sailing returns to the shipping industry—and shipping supply catches up with demand—the earnings multiples for both industries, which are near record highs, could find themselves under pressure.

Disruptive Technologies: Welcome to Carbon Trading. Recent storms and fires plaguing the US reinforce the changes to the US climate that many attribute to an increase of carbon dioxide (CO_2) in the atmosphere. In recent weeks, we've looked at the technology being developed to literally suck CO_2 out of the air or prevent it from entering the air in the first place (see our Morning Briefings from *September 2* and *August 19*). With the price of carbon credits in Europe reaching a record high this week, I asked Jackie to take a look at the emerging markets for carbon credit trading and the many small companies sprouting up to pounce on the resulting opportunities. Here's her report.

(1) *Profitable and environmental.* The European Union (EU) is the furthest along in developing a market for carbon credits, having created the European Union Emissions Trading System (ETS) in 2005. The ETS covers CO_2 released during a variety of industrial processes in a variety of industries in the EU, including oil refineries producing fuel for electricity and heat; producers of steel, iron, aluminum, cement, lime, glass, ceramics, pulp, paper, cardboard, acids, and bulk organic chemicals; and commercial planes.

In general, the ETS caps the amount of greenhouse gas participants can emit. If the participants don't use their allotted greenhouse credits, they can auction off what remains in the market. If they spew more greenhouse gas than is allotted, then they need to enter the market and buy offsetting credits.

The price of EU carbon credits has more than doubled since the start of this year to a record €61 on Monday. The move in recent days was attributed to the anticipation of tighter regulations and a tight natural gas market in Europe, which may mean more coal will need to be burned to generate electricity this winter, an August 30 *FT* *article* explained.

(2) *More restrictions lie ahead.* The EU aims to reduce the average greenhouse gas emissions by 55% in 2030 and be net zero by 2050 compared to 1990 levels. To get there,

the ETS will be expanded to cover emissions from the car industry and emissions from heating buildings. The EU is also considering a proposal for a carbon border adjustment mechanism, which is basically a tax on importers of steel, cement, aluminum, and fertilizer into the EU, to level the playing field with their EU-based competitors who must pay for carbon credits.

Other countries may enter the fray as well. China launched a carbon market this summer, but the caps currently cover only its energy industry's 2,225 sites, which account for 40% of the country's CO_2 emissions and about 15% of the world's emissions. China's other industries are expected to be added at a later date. There's a key difference between the Chinese and EU systems: China's focuses on carbon intensity, while the EU market focuses on total emissions.

"Analysts warned that an oversupply, a limited scope, and no cap on total emissions meant China's scheme was unlikely to assume immediately its intended 'central role' towards achieving the country's goal of reaching peak carbon emissions by 2030 and reaching net zero emissions by 2060," a July 16 *FT* *article* stated. In other words, this was a first step by China, and it's hoped that after a trial phase the Chinese system will be tightened up, just as the European system was. The price of carbon on the Chinese market fell to a record low in late August.

California has a cap-and-trade market that covers 450 entities responsible for 86% of the state's greenhouse gas emissions, including electricity generators, fuel distributors, and large industrial facilities. The Biden administration has appointed a working group to assign a US carbon price, but a recommendation from the group isn't expected this year.

(3) *Carbon trading becomes big business.* A carbon-offset credit is a transferable instrument certified by an independent entity or government. Each credit represents a reduction of one metric ton of CO_2 or the equivalent amount of greenhouse gas, states an August 16 *primer* by *Institutional Investor* sponsored by the CME Group. There is a growing group of folks who trade carbon credits and another group of companies that verify environmental projects that create carbon credits.

Companies including Verra, The Gold Standard, The American Carbon Registry, and Climate Action Reserve will audit projects that reduce CO_2, like reforestation projects, and new solar or wind projects that replace fossil fuel. They'll operate registries to keep track of the project and credits.

There are critics who don't believe that old projects or projects that would have proceeded anyway should be eligible for certification because they're not "additive" in helping to reduce the world's greenhouse gasses. Instead, critics argue these unworthy or preexisting projects give deep-pocketed polluters an easy way to buy carbon credits while they continue polluting.

There are also companies that put together carbon-offset programs. Investopedia ranked Native Energy the best overall carbon-offset program for 2021 in a May 25 *article*. Founded in 2000, Native Energy offers projects verified by third parties, carbon credits for purchase by companies and individuals, and project design services.

The size of the global carbon-trading market remains small, at €238 billion; but it grew 23% last year, and Wood Mackenzie estimates that it could grow to $22 trillion by 2050, a September 1 *WSJ* *article* reported. Traditional oil and gas traders like Vitol Group, Glencore, BP, and Royal Dutch Shell are increasing their ranks of traders to focus on this market.

Calendars

US: **Thurs:** Initial & Continuous Jobless Claims 336k/2.744m, Natural Gas Storage, Williams, Daly, Bowman. **Fri:** Headline & Core PPI 8.2%/6.6% y/y, Baker-Hughes Rig Counts. (Bloomberg estimates)

Global: **Thurs:** Germany Trade Balance €13.0b, Japan Machine Tool Orders, China New Loans, ECB Interest Rate Decision & Deposit Facility Rate 0.00%/-0.50%, Enria, Debelle, Macklem. **Fri:** Germany CPI 0.9%m/m/3.9%y/y, France Industrial Production 0.4%, Italy Industrial Production 0.1%m/m/5.4%y/y, Spain Industrial Production 5.9% y/y, UK GDP, UK Headline & Manufacturing Industrial Production 3.0%/6.0% y/y, UK Trade Balance -£11.0b, Canada Employment Change & Unemployment Rate 100k/7.3%, EU Finance Ministers Meeting, Elderson, Buch.(Bloomberg estimates)

Strategy Indicators

Stock Market Sentiment Indicators (***link***): The Bull/Bear Ratio (BBR) edged up to 2.49

this week after falling the prior three weeks from 3.55 to 2.45. It was at 4.00 eight weeks ago, which was the highest since late January 2018. Bullish sentiment climbed for the second week to 52.6, after falling from 56.4% to 50.0% the prior two weeks. Bearish sentiment, at 21.1%, was little changed from last week's 21.3%, which was the highest since early October 2020. Bearish sentiment had been fluctuating in a very narrow band for several months, before last week's move up. In the meantime, the correction count fell for the second week, to 26.3%, after rising from 27.7% to 31.5% over the prior two-week period. The AAII Ratio increased for the second week last week, to 56.6%, after falling from 54.0% to 48.6% the previous week; bullish sentiment rose from 33.2% to 43.3% over the two-week period, while bearish sentiment ticked up to 33.3% last week after falling from 35.1% to 33.0% the previous week.

S&P 500 Earnings, Revenues, Valuation & Margins (*link*): The S&P 500's forward profit margin remained steady last week at a record high of 13.2%. Since the end of April, it has exceeded its prior record high of 12.4% in September 2018. It's now up 2.9ppts from 10.3% during April 2020, which was the lowest level since August 2013. Forward revenues and earnings per share both rose w/w. They've both been making new record highs since the beginning of March and for the first time since February 2020. Since the Q2-2020 earnings season came in way better than expected, analysts have been playing catch-up with their lowball estimates from the Covid-19 shutdown. Consensus S&P 500 forecasts had been falling at rates paralleling the declines during the 2008-09 financial crisis. Forward revenues growth tumbled 0.7ppt w/w to 8.4%. That's down from a record high of 9.6% at the end of May and should continue to move lower due to base effects. Still, that's up from 0.2% during April 2020, which was the lowest reading since June 2009. Forward earnings growth dropped sharply too. It was down 2.4ppts w/w to 14.9% and should also continue to move lower due to base effects. That's down from its 23.9% reading at the end of April, which had been its highest since June 2010 and up substantially from its record low of -5.6% at the end of April 2020. On a positive note, analysts are not cutting their 2021 and 2022 forecasts for revenues and earnings growth and the profit margin. They expect revenues to rise 15.0% in 2021 (unchanged w/w) and 6.7% (unchanged w/w) in 2022 compared to the 2.1% decline reported in 2020. They expect earnings gains of 46.1% in 2021 (up 0.1ppt w/w) and 9.0% in 2022 (unchanged w/w) compared to a 13.3% decline in 2020. Analysts expect the profit margin to rise 2.7ppts y/y in 2021 to 12.9% (unchanged w/w) from 10.2% in 2020 and to improve 0.3ppt y/y to 13.2% in 2022 (unchanged w/w). The S&P 500's weekly reading of its forward P/E was steady w/w at 21.3, up from a 14-week low of 20.9 in mid-August. That compares to 23.1 in early September 2020, which was the highest level since July 2000 and up from a 77-month low of 14.0 in March 2020. The S&P 500 weekly price-to-sales ratio rose 0.01pt w/w to a new record high of 2.81. That compares to a 49-month low of 1.65 in

March 2020.

S&P 500 Sectors Earnings, Revenues, Valuation & Margins (*link*): Last week saw consensus forward revenues rise for all 11 S&P 500 sectors and forward earnings rise for all but Financials and Real Estate. Seven sectors are at or near record highs in both forward revenues and earnings: Communication Services, Consumer Discretionary, Consumer Staples, Health Care, Industrials, Information Technology, and Materials. Energy still has both measures below record highs. Financials, Real Estate, and Utilities have forward earnings at or near record highs, but their forward revenues are lagging. Only three sectors posted a higher profit margin y/y in 2020: Consumer Staples, Tech, and Utilities. For 2021, a y/y improvement is expected for all but Utilities now. Real Estate finally turned the corner several weeks ago. The forward profit margin was at record highs during 2018 for 8/11 sectors, all but Energy, Health Care, and Real Estate. Currently, seven sectors are at record highs. Here's how they rank based on their current forward profit margin forecasts versus their highs during 2018: Information Technology (24.9%, a new record high this week), Financials (19.2, down from its 19.8 record high in early August), Communication Services (16.7, record high), Real Estate (16.5, down from 17.0), Utilities (14.5, down from its 14.8 record high in early May), Materials (13.3, record high), S&P 500 (13.2, record high), Health Care (11.0, down from 11.2), Industrials (10.2, down from its record high of 10.5% in mid-December), Consumer Staples (7.6, 7.7), Consumer Discretionary (8.0, down from 8.3), and Energy (7.5, 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, 2020 after 14 weeks of Covid-19-related declines. Forward revenues and earnings have risen 18.4% and 52.2%, respectively, since then to new record highs. The forward profit margin has risen 3.1ppts to a record high of 13.2%, exceeding its prior record high of 12.4% in late 2018. During the latest week, all 11 sectors posted gains or remained steady at new highs in either their forward revenues, earnings, or profit margin. Here's how the 11 sectors rank by their changes in forward revenues and forward earnings since May 28, 2020: Energy (forward revenues up 28.1%, forward earnings up 1,586.9%), Materials (27.4, 92.0), Information Technology (24.9, 42.8), Communication Services (24.7, 55.7), Industrials (22.7, 70.8), S&P 500 (18.4, 52.2), Financials (17.4, 66.8), Health Care (14.0, 25.6), Consumer Discretionary (14.2, 94.3), Consumer Staples (11.0, 18.4), Real Estate (9.7, 26.9), and Utilities (0.5, 4.7).

US Economic Indicators

JOLTS (*link*): Job openings hit yet another new record high in July, increasing for the seven month this year. They jumped 749,000 in July—and are up 4.2 million ytd—to 10.9 million—2.2 million above the 8.7 million unemployed that month. Openings in March (at 8.3 million) had surpassed the previous record high of 7.6 million, posted in November 2018, by 714,000. Job openings were as low as 4.63 million last April. The biggest ytd increases in job openings have occurred in accommodations & food services (899,000), followed by health care & social assistance (605,000), manufacturing (410,000), state & local government education (375,000), professional & business services (355,000), and retail trade (336,000). Total hires fell for the first time in seven months, by 160,000 to 6.7 million—led by a 277,000 drop in retail trade during the month. Still, hirings are up 1.3 million ytd. The biggest ytd gains in hirings were also led by accommodations & food services (513,000), followed by state & local government employment (152,000), and arts & entertainment (127,000). Total separations—which includes quits, layoffs, and discharges—rose 174,000 in July and 463,000 over the six months ending in July to 5.8 million. Quits are generally voluntary separations initiated by the employee, and therefore can be viewed as the workers' willingness or ability to leave jobs. Quits climbed for the fifth time in six months, by 107,000 in July and 671,000 over the period to 4.0 million.

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