

**Yardeni Research** 



#### MORNING BRIEFING October 10, 2019

# Flygskam

See the <u>collection</u> of the individual charts linked below.

(1) It's a shame to fly. (2) Will soaring flight-shaming ground airlines? (3) Environmentalism is just one of three big headwinds slamming travel-related companies. (4) Trade tensions and strong dollar are deterring foreign vacationers from US. (5) Travel analysts' optimism is undeterred, though. (6) Will electric planes fly?
(7) Mechanizing the human body. (8) The Terminator next door: New technologies equip humans with superhuman capabilities.

**Airlines and Hospitality: Flying into Headwinds.** Is flying becoming as shameful as wearing a fur coat? Environmentalists want us to think good and hard before booking a flight and supporting its emissions into the atmosphere. Flight-shaming is a change in attitude that's much more prevalent in Europe than the US. Not even Prince Harry is spared; he faced critical headlines after flying in a private jet.

We're not here to debate flight-shaming but to look at its potential effects on the airlines and the travel industry. Unfortunately, the travel industry is facing other headwinds concurrently. Hotels and resorts are absorbing added labor expense owing to many states' minimum wage hikes. And tourism to the US is down because of the strong dollar and the US/China trade war.

The shares of many travel-related stocks have tumbled from their highs this summer. The S&P 500 Hotels, Resorts & Cruise Lines stock price index rose 27.4% from 12/31 through its peak on 5/3. Since then, the index has fallen 16.7%, leaving it up just 6.2% ytd through Tuesday's close. If the three negative trends continue to batter the industry, there certainly could be more downside because the industry's stock price index is up 67.5% since its low in 2016 (*Fig. 1*). Meanwhile, the S&P 500 Airlines stock price index has been trading in a sideways channel for much of the past three years (*Fig. 2*).

I asked Jackie to look at whether the airlines and hospitality industry will be grounded by these diverse headwinds or can still take flight. Buckle up:

(1) *The shame of flying.* Prince Harry is about as environmentally woke as they come. But the British royal was dubbed a hypocrite for decrying the ills of climate change yet also taking a private plane to Ibiza for his wife's birthday and another to Google's climate change summit in Sicily. The backlash was surprising to this American reader. But in Europe, the environmental impact of flying gets far more attention than in the US—not just from environmentalists but lawmakers and corporations too.

A 9/26 *Bloomberg Businessweek* <u>article</u> reported: "[C]ompanies across Europe are reconsidering travel policies, and individuals are asking whether jetting off to sunny spots for holidays is worth the environmental cost. The Swedes even have a name for it: *flygskam*, or flight shame, and it's a growing threat to airlines in Europe and beyond. SAS AB says its traffic fell 2% in the nine months ended July 30 from the year-earlier period, and Sweden's airport operator has handled 9% fewer passengers for domestic flights this year than last. Both say *flygskam* has played a role in declining traffic."

Beyond Sweden, there's a proposed ban on intra-country flights in France and revived interest in rail travel, which is environmentally more benign than flying, throughout Europe. Austria's state railway has seen increased demand for its overnight trains, and Germany aims to cut taxes on train travel and boost them on air travel. European companies are cutting their use of plane travel to meet their carbon-reduction goals as well.

Again from the *Bloomberg Businessweek* article: "Finland's Nordea Bank Oyj aims to trim flights 7% this year and plans internal carbon fees to meet that goal. German broadcaster Tele 5 in June said it will no longer pay for domestic flights for its 60 employees. Consulting company PwC and Switzerland's Zurich Insurance Group AG say they want to reduce carbon emissions per employee by a third or more from 2007 levels, mostly by cutting back on flights."

Americans don't have a strong rail alternative as the Europeans do, so encouraging our behaviors to change will be difficult. However, businesses can conduct more meetings via video-conferencing.

(2) *Paying up.* Hospitality employs many entry-level workers, so it may be disproportionately affected by increases to the minimum wage. The minimum wage was increased in 21 states and Washington DC over the past year, according to a nifty <u>graphic</u> on the Economic Policy Institute's website.

Some of the country's largest states have been wage-hiking. In New York, the minimum has been increased to \$11.10 an hour from \$10.40 and is going to \$11.80 at year-end 2019 and \$12.50 at year-end 2020. At the start of this year, Florida's minimum wage was upped to \$8.46 from \$8.25 and California's popped to \$12.00 from \$11.00; it will be raised by another \$1.00 in each of the next three years. Conversely, Texas and Pennsylvania laws set the states' minimum wages to equal the federal minimum wage of \$7.25. However, actual wages paid are typically far higher and set by market forces in today's tight job market.

Rising wages may help explain why the S&P 500 Hotels, Resorts & Cruise Lines' projected profit margin has fallen this year to 12.9% from its peak of 13.5% on 3/7 (*Fig. 3*). The S&P 500 Airlines' projected profit margin has remained relatively steady in recent years and is currently 8.0% (*Fig. 4*).

(3) *International travelers go elsewhere.* The US/China trade war and the strong dollar together have dented demand for travel to the US. While domestic travel rose 3.8% in July and 3.4% in August, international travel to the US contracted in July by 1.2% and was flat in August. The Leading Travel Index projects international inbound travel "vulnerability is likely to continue and may worsen," according to the US Travel Association's August <u>report</u>.

The industry association predicts that the US's share of global long-haul travel will fall from its current 11.7% to below 10.9% in 2022. It attributes the decline to the strong dollar, trade tensions, and competition from other countries for tourism business.

The weakness is confirmed by Las Vegas's flight statistics. In August, arriving and departing passengers at Las Vegas's McCarran airport were up for domestic travelers by 3.7% but down 3.1% for international travelers, according to a 9/25 press release.

(4) Optimism still flying high. Despite these headwinds, analysts remain relatively optimistic about the fortunes of travel-related companies. The S&P 500 Airlines industry is expected to grow revenue by 4.3% this year and 5.2% in 2020 (*Fig. 5*). Net earnings revisions for the industry have been positive, leaving estimates for earnings growth at 17.9% this year and 10.4% in 2020 (*Fig. 6*). The cyclical industry's forward P/E is 8.0, close to the industry's historical lows (*Fig. 7*).

On Tuesday, investors were cheered by news that American Airlines Group expects Q3 total revenue per available seat mile to increase 1.5%-2.5% despite the impact of Hurricane Dorian. The prior range was 1.0%-3.0%. In addition, Goldman Sachs upped its price target on United Continental to \$128 from \$114.

Meanwhile, the S&P 500 Hotels, Resorts & Cruise Lines industry's revenue growth is forecast at 6.3% this year and 6.3% again in 2020 (*Fig. 8*). Net earnings revisions have been negative over the past three months, leaving this year's earnings growth at 6.8% and 2020's at 10.5% (*Fig. 9*). The industry's forward P/E has fallen to 14.0, down from 19.6 in January 2018 (*Fig. 10*).

(5) *Can flight be electrified?* A handful of companies is working on electrifying planes to make flying greener and less shameful. About 45% of global flights are under 500 miles, which is within the range of an electric plane, according to a 8/20 <u>article</u> on GreenBiz. The article highlights six companies developing electric planes.

Eviation has a nine-seat, battery-powered, electric aircraft dubbed "Alice," which can fly 650 miles at 276 miles per hour at an operating cost of \$165 per hour. One potential hurdle: The battery takes two to three hours to charge, far longer than it takes to fill a tank with liquid fuel. The company is aiming for Federal Aviation Administration certification by late 2021.

Pipstrel, a light aircraft manufacturer in Slovenia, introduced its first electric plane in 2007 and more recently designed the ALPHA Electro, an electric, two-passenger plane that it claims is more affordable to maintain than a traditional plane. It's targeting the flight-training industry, as the plane can take off and land in short distances and has "endurance of one hour plus reserve," according to the company's <u>website</u>. The battery charges fully in an hour, and it costs only roughly \$5 to operate the plane for an hour.

Bye Aerospace is an American company that's also developing a plane for the training market. And Ampaire has retrofitted a six-seat Cessna 337 Skymaster with one conventional combustion engine and one electric motor powered by a battery; its range is approximately 200 miles.

NASA is testing the X-57 Maxwell, an electric aircraft with 12 small motors on its wing. The smaller engines provide additional lift for takeoff and landing, and their propellers fold away during flight to reduce drag. The hope is to improve the plane's fuel efficiency by 500%, a 10/9 Vox <u>article</u> reported.

**Disruptive Technologies: Machines' Best Friend.** The interaction between man and machine is reaching new heights. Handicapped humans are learning to use their minds to manipulate exoskeletons to give them mobility. The US Army is looking into using exoskeletons to enhance the power of soldiers. And our favorite example is the individual flying suit that Gravity Industries is developing. Machines are letting man achieve what was not previously possible. Let's take a look:

(1) *Brain power.* In a breakthrough study, a 28-year-old who was paralyzed from the shoulders down, with only some movement in his biceps and left wrist, was able to use his thoughts to control an exoskeleton that moved all four of his limbs.

"Two recording devices were implanted on either side of his head between the brain and the skin, to span the sensorimotor cortex (the area of the brain that controls sensation and motor function)," according to a 10/3 <u>press release</u> about the two-year study. (In previous studies, the recording devises were implanted further in the brain, where they were connected with wires and would eventually stop working. Previous studies were also limited to single-limb movement.)

Each recording device has 64 electrodes collecting brain signals, which are transmitted to a decoding algorithm. The algorithm translates the brain signals and sends the commands to the exoskeleton. The patient first trained with a virtual avatar and played video games. He was then able to walk while wearing the exoskeleton, which was tethered to the ceiling for balance (see <u>video</u>). Researchers are attempting to determine how the exoskeleton can be used without the ceiling tether.

"Our findings could move us a step closer to helping tetraplegic patients to drive computers using brain signals alone, perhaps starting with driving wheelchairs using brain activity instead of joysticks and progressing to developing an exoskeleton for increased mobility," said Professor Stephan Chabardes, a neurosurgeon from the CHU of Grenoble-Alpes, France, according to the press release.

(2) *Army's super soldiers*. The US Army is evaluating exoskeleton technologies available commercially for their potential use in the military to "support strength and endurance and protect soldiers from strain injury," according to a 5/15 <u>article</u> in Army Technology.

One of the systems being evaluated is Lockheed Martin's Onyx, which straps around a soldier's legs. "ONYX is a powered, lower-body exoskeleton with artificial intelligence (AI) technology that augments human strength and endurance. It counteracts overstress on the lower back and legs. Using electromechanical knee actuators, a suite of sensors and an AI computer, ONYX learns user movements and delivers torque to assist with walking up steep inclines, lifting or dragging heavy load," according to a 11/30/18 <u>article</u> in Defense World.

(3) *Hello, Iron Man.* Our favorite contraption is Gravity Industries' flying suit (discussed in our 9/20/18 *Morning Briefing*). Wearable jet packs can propel an airborne person at 55 miles per hour. Here's a cool demonstration <u>video</u>. The ability to soar like a bird costs \$440,000, and, for those with a real adventurous streak, Gravity Industries is hoping flying competitions will begin in 2020.

## CALENDARS

**US. Thurs:** Headline & Core CPI 1.8%/2.4% y/y, Jobless Claims 218k, EIA Natural Gas Storage Mester. **Fri:** Consumer Sentiment Index 92.0, Import Prices -0.1%m/m/-2.2%y/y, Baker-Hughes Rig Count, Rosengren, Kaplan, Kashkari. (DailyFX estimates)

**Global. Thurs:** Germany Trade Balance €18.6b, Germany Sovereign Debt To Be Rated By S&P, UK Headline & Manufacturing Industrial Production -0.8%/-0.4% y/y, China Foreign Direct Investment, ECB Account of September Policy Meeting, Lane. Fri: Germany CPI 0.0%m/m/1.2%y/y, Canada Employment Change & Unemployment Rate 7.9k/5.7%, Mexico Industrial Production -1.9% y/y, Guindos. (DailyFX estimates)

#### **STRATEGY INDICATORS**

**Stock Market Sentiment Indicators** (*link*): The Bull/Bear Ratio (BBR) dropped back below 3.00 this week as bullish sentiment tumbled. The BBR sank to 2.77 after being little changed last week at 3.23; it had increased from 2.35 to 3.28 the previous four weeks. The wide swings between the bullish and correction camps since early June continue. This week, bullish sentiment plunged 7.7ppts to 47.6% after jumping 11.4ppts—to 55.1% from 43.9%—the prior five weeks. The correction count soared 7.6ppts to 35.2% after tumbling 9.8ppts—to 27.6% from 37.4%—the previous five weeks. Bearish sentiment ticked up to 17.2% after ticking down from 16.8% to 17.1% last week, remaining in the narrow band in which it has fluctuated for most of this year. The AAII Ratio fell for the second week last week, from 56.0% to 35.1%, as bullish sentiment fell from 35.3% to 21.4% over the two-week period,

while bearish sentiment rose from 27.8% to 39.4%.

S&P 500 Earnings, Revenues, Valuation & Margins (link): Consensus S&P 500 forward revenues and earnings rose w/w to new record highs. Analysts expect forward revenues growth of 5.4% and forward earnings growth of 9.2%, with the earnings measure up 0.7ppt w/w. Forward revenues growth is down 0.9ppt from a seven-year high of 6.3% in February 2018 but is up from a 31-month low of 5.0% in mid-February. Forward earnings growth is down 7.7ppts from a six-year high of 16.9% last February but has improved from a 34-month low of 5.9% in late February. Prior to the passage of the Tax Cuts and Jobs Act (TCJA), forward revenues growth was 5.5% and forward earnings growth was 11.1%. Turning to the annual growth expectations, analysts expect revenues growth to slow from 8.5% in 2018 to 4.3% in 2019 and 5.5% in 2020. They're calling for earnings growth to slow sharply from 24.0% in 2018 to 1.7% in 2019 before improving to 10.2% in 2020. The forward profit margin was steady w/w at a five-month low of 12.0% and is down 0.4ppt from a record high of 12.4% in September 2018. That compares to 11.1% prior to the passage of the TCJA in December 2017 and a 24-month low of 10.4% in March 2016. Analysts are expecting the profit margin to drop 0.3ppt y/y from 11.9% in 2018 to 11.6% in 2019 before improving to 12.1% in 2020. The S&P 500's forward P/E dropped 0.7pt w/w to a sevenweek low of 16.4, which compares to an 18-month high of 17.4 in late July. That's up from 14.3 during December, which was the lowest reading since October 2013 and down 23% from the 16-year high of 18.6 at the market's valuation peak in January 2018. The S&P 500 price-to-sales ratio dropped 0.8pt w/w to a seven-week low of 1.97, which compares to an 11-month high of 2.10 in late July. That's up from 1.75 during December, when it was the lowest since November 2016, and down 19% from its then-record high of 2.16 in January 2018.

S&P 500 Sectors Earnings, Revenues, Valuation & Margins (*link*): Consensus forward revenues rose w/w for all 11 S&P 500 sectors, and forward earnings was up for nine of the 11 sectors. Forward revenues and earnings are at or around record highs for 4/11 sectors: Consumer Discretionary, Health Care, Industrials, and Tech. Forward P/S and P/E ratios have declined from recent multi-year or record highs for four sectors: Communication Services, Real Estate, Tech, and Utilities. However, all sectors remain well above their multi-year lows during December 2018. Due to the TCJA, the profit margin for 2018 was higher y/y for all sectors but Real Estate. The outlook for 2019 shows higher margins are expected v/y for just one sector now: Financials. The forward profit margin rose to record highs during 2018 for 8/11 sectors, all but Energy, Health Care, and Real Estate. Since then, it has moved lower for nearly all of the sectors. During the latest week, it was higher for 5/11 sectors and down for Real Estate. Industrials and Utilities are the only sectors still at record highs. Here's how the sectors rank based on their current forward profit margin forecasts versus their highs during 2018: Information Technology (21.5%, down from 23.0%), Financials (18.3, down from 19.2), Real Estate (15.9, down from 17.0), Communication Services (15.1, down from 15.4), Utilities (13.1, record high), S&P 500 (12.0, down from 12.4), Health Care (10.6, down from 11.2), Industrials (10.4, record high), Materials (10.2, down from 11.6), Consumer Discretionary (7.5, down from 8.3), Consumer Staples (7.4, down from 7.7), and Energy (6.8, down from 8.0).

## **US ECONOMIC INDICATORS**

**JOLTS** (*link*): Job openings in August fell for the fourth time in five months, though were still within 575,000 of November's record-high 7.626 million. Openings fell 123,000 in August and 423,000 over the five-month period to 7.051 million. August's ratio of unemployed workers per job opening was below 1.00 for the 18th straight month, at 0.84, with job openings exceeding unemployed workers by 1.0 million. Hirings fell for the third time in four months, by a total of 212,000 to 5.779 million, while separations fell 49,000 over the same period to 5.638 million. The latest hiring and separations data yielded an employment advance of 141,000 in August, 27,000 below the payroll gain of 168,000 during that month—understating the increase for the first time in seven months. Those quitting their jobs fell

142,000 to 3.526 million after jumping 206,000 in July to a new record high of 3.668 million. The quit rate ticked down to 2.3% from July's cyclical high of 2.4%. August's job openings rate slipped for the third month, to 4.4% from 4.7% in May; it was at a record rate of 4.8% at the start of the year. The hires rate was at 3.8% in August, remaining within the 3.8%-4.0% range where it has fluctuated for over a year.

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