

Yardeni Research



MORNING BRIEFING

August 10, 2020

Stock Valuation in a Zero-Bond-Yield World

Check out the accompanying chart collection.

(1) Hamlet, TINA, Joe, and me. (2) Valuation isn't a life or death issue, though paying too much for stocks can be a killer. (3) TINA is back, stronger than ever. (4) Reversion to the mean. (5) But what if the mean is a moving target, buffeted by inflation and Interest rates? (6) Blast from the past: Fed's Stock Valuation Model. (7) FANGMAN again. (8) Buffett Ratio is off the charts. (9) Is the V-shaped recovery starting to stall? (10) Rents are disinflating. (11) Movie review: "The Last Narc" (+ + +).

Strategy: Hamlet & the Valuation Question. William Shakespeare's protagonist Hamlet, in his play of the same name, asked the most basic question about the value of life: "To be, or not to be?" Joe and I have been asking: "In a world of zero interest rates, what is the fair value of the S&P 500 forward P/E?" Our question certainly doesn't imply anything about whether living is worth the pain it can entail, as Hamlet discussed in his famous soliloquy. We are simply asking whether stocks should be deemed to be or not to be too expensive.

Nevertheless, investors can get killed if the current valuation multiple—22.1 on the S&P 500 as of Friday's close—is too high and headed lower. Alternatively, investors who cash out of equities now because they deem stocks to be too expensive could turn suicidal if stock prices continue to soar along with their P/Es. After all, with bond yields near zero, the notion that there is no alternative (TINA) to stocks makes more sense than ever before. Consider the following:

(1) Historical average and reversion to the mean. The average of the S&P 500's P/E since 1960 has been around 15.0 (Fig. 1). We are using the trailing average P/E based on quarterly reported earnings from 1960 to 1978 and the P/E based on monthly forward earnings from January 1979 through April 1994, then weekly forward earnings from May 1994 to now.

The average over this period doesn't mean much since inflation and interest rates trended upwards from the 1960s through the 1980s, and then both trended downwards since the 1980s (*Fig. 2* and *Fig. 3*). The P/E was generally below the historical average when inflation

and interest rates were rising and high. It was generally above the average when inflation and interest rates were falling and low.

Nevertheless, it is widely believed that the P/E tends to revert to its historical mean. It certainly did so during the bear market of 2000, when a rapid tumble took the P/E to its historical average mean (*Fig. 4*). It fell below its mean during the bear market of the Great Financial Crisis (GFC) and reverted above the mean during the subsequent bull market. Now it is the highest since December 2001.

(2) Is it different this time? While the current P/E undoubtedly will revert to the mean eventually, that might not be a very useful insight if the mean has moved higher when adjusted for record-low bond yields. In other words, it could just as easily revert to a higher P/E as to a lower one, which would still be above the historical average.

In a world of zero interest rates, maybe the new normal mean P/E is 30, twice what it was during the old normal. We don't have a model that says that 30 is the new normal. All we are saying is that the new normal mean P/E might be higher than the current reading of 22.1 rather than lower and closer to the old normal's 15.0 average.

(3) Bond yields and valuation. Many years ago, from the late 1970s through the late 1990s, there was a reasonably good correlation between the 10-year US Treasury bond yield and the forward earnings yield, which is simply the reciprocal of the forward P/E (*Fig. 5*). In 1997, I called this relationship the "Fed's Stock Valuation Model" (FSVM), and the name stuck, as discussed in Investopedia. Needless to say, I must have cursed it, since it hasn't worked as a useful valuation model since the early 2000s.

Maybe it is starting to work again now. The FSVM has been signaling that stocks are increasingly cheap relative to bonds since the early 2000s (*Fig. 6*). Over the past 22 weeks through the end of July, stocks have been undervalued relative to bonds by a record 86%.

After all, the bond's recent record-low yield of 0.50% on August 4 implies a P/E for the bond of 200 (!), using the reciprocal of the yield. In other words, the FSVM is clearly signaling the S&P 500's current forward P/E is too low relative to the bond's P/E. Take that for what it's worth considering that it is just as easy to argue that bonds are ridiculously overvalued relative to stocks. The truth may lie somewhere in between, i.e., stocks are relatively cheap, while bonds are relatively expensive. Indeed, if the bond yield would be, say, 1.50% but for the Fed's ZIRP

and QE4Ever (i.e., zero interest-rate policy and quantitative easing forever) interventions in the bond market, its P/E would be 66—still high.

- (4) Recent correlations. Since the start of the current bull market, there has been a relatively good (but not great) correlation between the S&P 500 forward P/E and the inverse of the bond yield (*Fig. 7*). This correlation seems to have gotten much tighter since the bond yield fell below 1.00% on August 4 to a record low of 0.50%, while the forward P/E has soared from a recent low of 12.9 on March 23 to 22.1 on Friday.
- (5) *Growth & Value.* Leading the charge higher has been the forward P/E of S&P 500 Growth composite from 16.8 on March 23 to 28.7 on Friday (*Fig. 8*). The ratio of the Growth to the Value components of the S&P 500 Growth index has been rising since the start of the bull market during 2009 (*Fig. 9*). It's been soaring to new record highs since April 14. Again, that coincides with the bond yield falling close to zero. As we've previously observed, much of the outperformance in the Growth index in recent years has been attributable to the FANGMAN (Facebook, Amazon, Netflix, Google's parent Alphabet, Microsoft, Apple, and Netflix) stocks.

(By the way, Hamlet arguably was leaning toward the notion of TINA to life when his anguished soliloguy was cut short by the entry of Ophelia.)

US Economy: Booming or Stalling? There are still plenty of economic indicators showing V-shaped recoveries from the severe lockdown recession imposed by state governors to slow the spread of the COVID-19 virus. They all tumbled during March and April and since have rebounded during May through July. Here's a quick update of the upbeat ones and a couple of downbeat ones:

(1) Purchasing managers indexes. Both the M-PMI and NM-PMI in the US have bounced back smartly in recent months. At 54.2 and 58.1 during July, both exceeded their January readings of 50.9 and 55.5 (*Fig. 10* and *Fig. 11*). Their orders indexes at 61.5 and 67.7 were very strong, as were the production indexes at 62.1 and 67.2. Lagging behind were the employment indexes at 44.3 and 42.1.

These numbers suggest that one of the consequences of the Great Virus Crisis (GVC) could be a big cyclical, and maybe even a big secular, rebound in productivity, as companies scramble to produce more goods and services with fewer employees.

- (2) *Housing.* As we discussed last Wednesday, the GVC has convinced lots of urban renters that now may be the time for them to purchase new and existing homes in the suburbs and rural areas. The resulting surge in housing activity has boosted home prices. Offsetting that development are record-low mortgage interest rates. The Pending Home Sales Index compiled by the National Association of Realtors has soared from a recent low of 69.0 during April to 116.1 during June, the highest reading since February 2006 (*Fig. 12*). It is highly correlated with existing home sales. A similar rebound has occurred in the Housing Market Index compiled by the National Association of Homebuilders.
- (3) CEO confidence. All those upbeat purchasing managers should schedule interventions with their depressed CEOs. The Business Roundtable's CEO Outlook Index fell to 34.3 during Q2, the lowest reading since Q2-2009 (Fig. 13). That doesn't augur well for capital spending over the rest of the year unless CEO confidence recovers soon, as we expect it will.
- (4) Gasoline usage. Our favorite high-frequency indicator for gauging the economic recovery is the weekly series on gasoline usage. It bottomed during the week of April 24 and rose 62% without stop through the week of July 10 (*Fig. 14*). It has stalled around 8.7mbd for the three weeks through the July 31 week.

US Inflation: Falling Rents. While we are thinking more about the potential for inflation to finally make a comeback and exceed the Fed's 2.0% target, we aren't fretting that it will happen anytime soon. As we discussed last Wednesday, lots of renters haven't been able to pay their rent during the GVC. Many may face eviction. Rents are falling as a result. Consider the following:

- (1) Rent in the CPI. Rent of shelter accounts for 33.1% of the CPI, with tenant rent at 7.9% and owner-occupied rent at 24.3% (Fig. 15). Here are the June y/y inflation readings for these three measures of rent compared to last June: total (2.4%, down from 3.5%), tenant (3.2, down from 3.9), and owner (2.8, down from 3.4) (Fig. 16).
- (2) Rent in the PCED. The comparable rent inflation rates in the PCED (personal consumption expenditures deflator) are identical. The weights are different than in the CPI, with rent of shelter accounting for 17.4% of the PCED, tenant rent 4.7%, and owner-occupied rent 12.7%.

There's no prospect of a V-shaped recovery in rent inflation. On the contrary, it may still have much lower to go based on what happened right after the GFC: Rent of shelter inflation fell

slightly below zero during 2010. This suggests that the bottom of rent inflation might not occur until 2022. If so, that will weigh on both the CPI and PCED measures of inflation.

In case you missed it, here is what we wrote about this subject in last Wednesday's *Morning Briefing*:

"While the picture may be rosy for those with the freedom and ability to afford a white-picket fence, that's not the case for all. A dichotomy is growing in the housing market. Many low-income workers living in rental units are on the brink of eviction. Not only are renters increasingly cost burdened by rising rents and other costs of living, but the moratorium on evictions for federally assisted housing put into place by the Coronavirus Aid, Relief, and Economic Security (CARES) Act recently has expired.

"The share of income lost from the pandemic has been disproportionately huge for low-income workers. Displaced hospitality and food services workers have limited earning prospects in the near future. Also lapsed is the generous weekly federal \$600 boost to state unemployment insurance afforded by the CARES Act. Some level of aid is likely to be reinstated, but it's currently unclear how much. On Monday, as leaders on both sides of the aisle met to continue to negotiate the next virus-relief plan, President Trump said that he might act to stop evictions, reported Bloomberg. While Trump offered no details, the eviction crisis clearly has become a national concern.

"The problem preceded the pandemic, but the pandemic has made it worse. 'Of America's nearly 43 million renters, about 20.8 million—almost half—were "cost-burdened," meaning more than 30 percent of their income went to housing costs, according to the Joint Center for Housing Studies of Harvard University. Of those, about 10.9 million renter households were "severely burdened," spending more than 50 percent of their income on rent,' reported Vox. The article added: 'The Covid-19 Eviction Defense Project, a Colorado-based legal project, estimates that between 19 million and 23 million renters are at risk of eviction by the end of September."

Movie. "The Last Narc" (+ + +) (*link*) is a TV mini-series documentary about the kidnapping, torture, and murder of "Kiki" Camarena, an agent for the Drug Enforcement Agency. The blood-chilling story is told by Hector Berrellez, a DEA investigator assigned to determine who committed the crime in Mexico. Three of his informants, who were witnesses to the kidnapping, are interviewed. Drug money has a powerfully corrupting influence on everyone involved in the

enterprise including not only the narcos but also the narcs, the police, and many politicians on both sides of the southern border of the US. Like Hamlet's epiphany about who killed his father, Hector uncovers the unbearable truth about what really happened to Kiki.

CALENDARS

US: Mon: Job Openings 4.9m, Evans. **Tues:** NFIB Small Business Optimism, Headline & Core PPI 0.3%/0.1%, API Crude Oil Inventories, Daly. (DailyFX estimates)

Global: Mon: Japan Bank Lending 6.5% y/y. **Tues:** Eurozone ZEW Economic Sentiment Index, Germany ZEW Economic Sentiment Index 59, UK Employment Change & Unemployment Rate -298k.4.2%, Average Hourly Earnings Including & Excluding Bonuses -1.2%/-0.1%. (DailyFX estimates)

STRATEGY INDICATORS

Global Stock Markets Performance (link): Last week saw the US MSCI index rise 2.3% for its fifth gain in six weeks. The index ranked 15th of the 49 global stock markets we follow in a week when 38/49 countries rose in US dollar terms, and the AC World ex-US index gained 1.7% as only one region declined. The US MSCI index was out of a correction for a sixth week after slipping back the week before that for the first time in five weeks. It's now just 0.3% below its 2/19 record high. EM Eastern Europe was the best-performing region last week, with a gain of 2.6%, followed by EMU (2.1%) and EAFE (1.9). EM Latin America (-2.9) was the biggest underperformer, followed by BRIC (0.7), EMEA (1.1), and EM Asia (1.5). Korea was the bestperforming country last week, with a gain of 4.9%, followed by the Czech Republic (4.4), Austria (4.2), Norway (3.7), and Sri Lanka (3.5). Of the 28 countries that underperformed the AC World ex-US MSCI last week, Turkey fared the worst, with a decline of 8.8%, followed by Chile (-4.7), Brazil (-4.4), and South Africa (-3.4). The US MSCI's ytd ranking rose one place to 7/49 as its ytd gain improved to 4.9% from 2.5% a week earlier. It's way ahead of the 6.9% ytd decline for the AC World ex-US. EM Asia is the best regional performer ytd with a gain of 6.0%, followed by BRIC (0.6). The worst-performing regions ytd: EM Latin America (-31.2), EM Eastern Europe (-22.2), EMEA (-19.8), EAFE (-8.9), and EMU (-8.4). The best country performers ytd: Denmark (18.8), Taiwan (13.0), China (13.0), New Zealand (10.2), and Israel (5.7). The worst-performing countries so far in 2020: Colombia (-44.9), Greece (-35.9), Brazil (-34.0), Turkey (-31.3), and Austria (-29.1).

S&P 1500/500/400/600 Performance (*link*): The stock market moved broadly higher last week, with every sector of all three cap sizes advancing except for one (SmallCap Communication Services), which was flat. The SMidCaps were up for a fourth straight week. LargeCap rose 2.5% for the week but trailed the 5.3% surge for SmallCap and the 4.0% rise for MidCap. LargeCap has been out of a bear market for 17 weeks, and out of a correction for six straight weeks. LargeCap is now 1.0% below its 2/19 record high. MidCap came out of a correction last week for the first time in nine weeks as it improved to 8.0% below its record high on 1/16. SmallCap was last week's the worst performer, but was out of bear for the first time in nine weeks as it improved to 17.0% below its 8/29/18 record. The 32 (of 33) sectors that rose last week is up from 20 rising a week earlier. Only MidCap Consumer Staples ended the week at a record high, but 13 sectors are now out of a correction. MidCap Energy was the best performer last week with a gain of 11.8%, ahead of SmallCap Energy (10.7), SmallCap Industrials (7.3), SmallCap Materials (6.5), and SmallCap Financials (6.4). SmallCap Communication Services was the biggest underperformer last week, albeit with a flat performance, followed by LargeCap Real Estate (0.7), LargeCap Health Care (0.9), LargeCap Utilities (1.0), and LargeCap Consumer Staples (1.4). LargeCap is now positive for the year so far, with a gain of 3.7%, ahead of MidCap (-6.0) and SmallCap (-10.7). Eleven of the 33 sectors are now positive so far in 2020, with the best performers led by LargeCap Information Technology (24.1), LargeCap Consumer Discretionary (18.4), MidCap Health Care (15.9), SmallCap Communication Services (11.5), and LargeCap Communication Services (8.7). The biggest laggards of 2020 to date: SmallCap Energy (-48.9), MidCap Energy (-40.0), LargeCap Energy (-38.5), SmallCap Financials (-26.2), and MidCap Real Estate (-24.1).

S&P 500 Sectors and Industries Performance (*link*): All 11 S&P 500 sectors rose last week, and five outperformed the composite index's 2.5% gain. That compares to a 1.7% gain for the S&P 500 a week earlier, when seven sectors rose and four outperformed the index. Industrials' 4.8% gain made it the best performer for the week, ahead of Financials (3.3%), Energy (3.1), Communication Services (3.0), and Tech (2.9). Real Estate was the week's biggest underperformer, albeit with a gain of 0.7%, followed by Health Care (0.9), Utilities (1.0), Consumer Staples (1.4), Consumer Discretionary (1.9), and Materials (2.2). The S&P 500 is now up 3.7% so far in 2020, with four sectors ahead of the index and six in positive territory. The leading sectors ytd: Information Technology (24.1), Consumer Discretionary (18.4), Communication Services (8.7), and Health Care (4.3). The laggards of 2020 so far: Energy (-38.5), Financials (-19.4), Industrials (-7.7), Real Estate (-5.8), Utilities (-4.9), Materials (0.6), and Consumer Staples (0.7).

Commodities Performance (*link*): Last week, the S&P GSCI index rose 1.6% for its 11th gain in the past 15 weeks. It's now down 22.4% from its recent high on 1/6, and still in a severe bear market at 31.3% below its cyclical high on 10/3/18. Natural Gas was the best performer last week, with a gain of 25.9%, followed by Silver (13.9%), Cocoa (5.9), and Nickel (4.3). Wheat was the biggest decliner for the week, with a drop of 6.4%, followed by Kansas Wheat (-5.6), Soybeans (-2.8), and Coffee (-2.5). Eight of the 24 commodities that we follow are higher so far in 2020: Silver (54.0), Gold (33.1), Zinc (5.3), Natural Gas (3.5), and Copper (2.2). The worst performers ytd: Heating Oil (-39.5), GasOil (-39.3), Brent Crude (-32.6), Crude Oil (-32.4), and Unleaded Gasoline (-29.3).

S&P 500 Technical Indicators (*link*): The S&P 500 rose 2.5% last week and improved relative to both its short-term, 50-day moving average (50-dma) and its long-term, 200-day moving average (200-dma). It was above its 50-dma for a 17th week after seven weeks below, and above its 200-dma for the tenth time in 11 weeks. It had been below its 200-dma for 13 weeks through late May, matching its prior streak that ended during February 2019. The index's 50dma relative to its 200-dma improved for a 12th week after 12 declines and was in a Golden Cross (with 50-dmas higher than 200-dmas) for a fifth week after 15 weeks in a Death Cross. Before the 2020 meltdown, it had last been in a Death Cross for 13 straight weeks ending in March 2019. The index's 50-dma improved last week to 3.6% above its 200-dma from 2.8% above in the prior week. It had been 9.9% below in mid-May, which was the worst reading since May 2009. During late February, the 50-dma had been 7.6% above its 200-dma, which was the highest since May 2012. The S&P 500's 50-dma rose for a 12th week after declining for 12 straight weeks. The price index rose to 5.6% above its rising 50-dma from 4.1% above its rising 50-dma a week earlier. The early June reading of 11.7% above its 50-dma had been the highest since May 2009, when it peaked at a record high of 14.0%. That compares to 27.7% below on 3/23—its lowest reading since it was 29.7% below on Black Monday, 10/19/87. The 200-dma rose for a 12th week as well. It had been rising for 39 weeks through early March. The index was above its 200-dma for a sixth week after falling below the week before that for the first time in five weeks. It had been above for 38 weeks through mid-February. It ended the week 9.5% above its rising 200-dma, compared to 7.1% above a week earlier. That's up from 26.6% below on 3/23—the lowest reading since March 2009 and down from a 24-month high of 11.2% in mid-February. That compares to a seven-year high of 13.5% above the index's rising 200-dma during January 2018 and 14.5% below on 12/24/18, which was then the lowest since April 2009. At its worst levels of the Great Financial Crisis, the S&P 500 index was 25.5% below its 50-dma (on 10/10/08) and 39.6% below its 200-dma

(11/20/08).

S&P 500 Sectors Technical Indicators (*link*): Ten of the 11 S&P 500 sectors traded above their 50-dmas last week, unchanged from a week earlier and leaving Energy as the only sector trading below its 50-dma. That compares to all 11 sectors above in the three weeks around the start of June. Nine sectors traded above their 200-dmas, up from seven a week earlier, as Industrials and Utilities moved above. Only Energy and Financials are trading below their 200dmas. That compares to just one sector (Health Care) above its 200-dma in early April. Five sectors are now in the Golden Cross club (50-dmas higher than 200-dmas), unchanged from a week earlier. Sectors in a Golden Cross: Communication Services, Consumer Discretionary, Health Care, Materials, and Tech. At the prior low during February 2019, just two sectors (Real Estate and Utilities) were in the club. Energy has not been in a Golden Cross for 92 straight weeks, and its 50-dma fell for a second week after briefly rising the week before that. In early June, the 50-dma had been rising for all 11 sectors for three straight weeks. That's a big improvement from the beginning of May, when all 11 had falling 50-dmas for ten straight weeks. Six sectors have rising 200-dmas, unchanged from a week earlier. Sectors with rising 200-dmas: Communication Services, Consumer Discretionary, Consumer Staples, Health Care, Materials, and Tech. Financials' 200-dma was down for a 23rd week, so long for the first time since late August. Energy's 200-dma has been mostly falling since October 2018.

US ECONOMIC INDICATORS

Employment (*link*): July's employment gain once again was better than expected. Payroll employment climbed 1.763 million (vs 1.480 million projected) last month, following a slight downward revision to June's 4.791 million (vs 4.800 million) increase and an upwardly revised 2.725 million (vs 2.699 million) to May's—for a net gain of 17,000. Private payrolls climbed 1.462 million (dwarfing ADP's 167,000 increase) last month after gains of 4.737 million (vs 4.767 million) and 3.236 million (vs 3.232 million) during June and May, respectively—for a net loss of 26,000. Total and private payroll employment advanced 9.279 million and 9.435 million, respectively, during the three months ending July, after plunging 22.160 million and 21.191 million during the two months through April. The former has recovered 42.0% of the lobs lost at the start of the pandemic, the latter 44.5%. Service-providing jobs rose 1.423 million in July and 8.205 million the past three months, while the goods-producing tally was a more subdued 39,000 and 1.230 million, respectively, over the comparable periods—though these industries weren't as hard hit as the services sector. Leisure & hospitality jobs jumped 592,000 in July—accounting for one-third of the gain in total employment and 40% of the rise in private payrolls,

led by a 502,000 gain in food services and drinking places. Over the three months through July, leisure & hospitality jobs soared 3.978 million, led by a 3.440 million increase in restaurants. Here's how employment in other private industries fared over the comparable periods: Retail trade (258,000 in July & 1.471 million over three months ending July), professional & business services (170,000 & 648,000)—led by temporary-help services (144,000 & 334,400), health care (126,000 & 781,100), social assistance (66,000 & 232,600), transportation & warehousing (38,000 & 99,800), manufacturing (26,000 & 623,000), financial activities (21,000 & 63,000), and construction (+20,000 & 639,000). Mining cut payrolls for the eighth time in nine months, by 7,000 in July and 111,700 over the period. Meanwhile, government payrolls climbed 301,000 in July and 355,000 the past two months—mostly local governments (241,000 & 285,000).

Earned Income Proxy (*link*): Our Earned Income Proxy (EIP), which tracks consumer incomes and spending closely, climbed 1.2% in July and 7.3% during the three months ending July, following a 12.4% decline during the two months through April to its lowest reading since mid-2017. The average hourly earnings component of the EIP edged up 0.2% in July after falling 2.4% during the two months ending June—though the recent declines in hourly earnings were more than offset by a rebound in aggregate weekly hours—the EIP's other component. Aggregate weekly hours rose for the third month, by 1.0% in July and 9.7% over the period, after plunging 15.2% in April. Compared to a year ago, the EIP contracted 3.2% y/y—narrowing from April's 8.9% drop—as the y/y decline in aggregate weekly hours slowed to 8.0% from 15.7% in April, while average hourly earnings rose 4.8% y/y, slowing from 8.0% in April.

Unemployment (*link*): The unemployment rate fell for the third month, to 10.2%, in July; this followed a huge jump in prior months—from a 50-year low of 3.5% in February and 4.4% in March up to an unprecedented monthly rate of 14.7% in April. The number of unemployed fell by 6.7 million during the three months ending July; prior to that, the rate had soared by 17.3 million over the two months through April to a record-high 23.1 million, which well exceeded the previous record high of 15.4 million recorded in October 2009. Unemployment rates for both Whites (to 9.2% from 14.2% in April) and Hispanics (12.9 from 18.9) continued to fall in July from April's record highs. In the meantime, the rate for Asians (12.0% from 15.0% in May) was down from May's record high, while the rate for African Americans (14.6% from 16.8%) was down from May's cyclical high. These rates were at 3.1%, 4.4%, 2.5%, and 5.8%, respectively, in February. Here's a snapshot of July's unemployment rates by education level, all of which dropped from April record highs: less than a high school degree (to15.4% from

21.2%), high school degree (10.8 from 17.3), some college (10.0 from 15.0), and a Bachelor's degree & higher (6.7 from 8.4). These rates had been at 5.7%, 3.6%, 3.0%, and 1.9%, respectively, in February, prior to pandemic lockdown effects. The participation rate was little changed at 61.4% in July, after rebounding from 60.2% in April to 61.5% in June; July's rate was 2.0ppts below February's 63.4%.

Wages (link): Average hourly earnings ticked up 0.2% in July after falling 1.3% and 1.1% the prior two months (reflecting lower-paid workers, on temporary leave, returning to work). Their absence from the job market had pushed hourly earnings up 4.7% during April alone. The yearly rate eased for the third month, to 4.8% in July, after accelerating to a record-high 8.0% in April. The yearly wage rate for service-providing industries (to 5.1% from 8.7% y/y in April) decelerated for the third month, from April's record high, while the goods-producing industries' wage rate ticked up to 3.5% y/y after slowing from a cyclical high of 5.0% in April to 3.3% in June. Within service-providing, the rates for utilities (4.5% y/y) and information services (4.4) remain on accelerating trends, climbing to their highest readings since the end of 2018 and August 2019, respectively. Meanwhile, the rate for financial activities (5.2% y/y) is stalled around June's 5.3%—which is the highest since May 2018, up from a recent low of 3.1% in November. Remaining on downtrends are rates for leisure & hospitality (1.6% y/y), transportations & warehousing (1.8), and professional & business services (4.0%). In the meantime, rates for retail trade (6.4% y/y) and wholesale trade (3.4) ticked higher in July, while the rate for education & health services (2.9) slowed for the second month. Within goodsproducing companies, the wage rate for construction accelerated for the third month, to 3.2% y/y in July from 2.4% in April, while the manufacturing rate ticked up to 3.8% y/y after falling from 6.7% in April to 3.5% by June. The natural resources rate fell to 3.0% y/y last month from 5.4% in March.

GLOBAL ECONOMIC INDICATORS

Germany Manufacturing Orders (*link*): Factory orders skyrocketed a record 27.9% in June—nearly triple May's prior record increase of 10.4%. The ministry, however, noted that orders from abroad are "lagging behind the development in Germany." This development would "show why the further recovery process will proceed more slowly." Both domestic (35.3% m/m & 52.1% during the two months ending June) and foreign (22.0 & 32.6) orders posted unprecedented gains the past two months. Within foreign orders, billings from inside (22.3% m/m & 48.7% during two months through June) and outside (21.7 & 23.4) the Eurozone rebounded sharply, though the former had back-to-back 20%-plus gains. Here's a look at the

two-month performance by market group for total, domestic, and foreign orders, respectively—with capital goods the clear winner: capital goods (75.2%, 107.4%, 53.8%), consumer durable goods (24.5, 49.3, 11.2), consumer nondurable goods (-0.4, -0.9, -0.2).

Germany Industrial Production (*link*): June data show industrial output continued to rebound as restrictions to contain the spread of COVID-19 eased. Germany's headline production(which includes construction) jumped a record 8.9% in June, building on May's previous record gain of 7.4%—led by a record 22.2% in manufacturing output over the two-month period. Excluding construction, June's rebound was stronger, climbing 10.8% after a 9.2% surge in May. Of the top four Eurozone economies, Germany's lockdown was the least severe since it never mandated factories close—though companies did stop production in some areas. Here's a snapshot of movements in the main industrial groupings over the past two months: capital goods (50.6%), consumer durable goods (27.5), consumer nondurable goods (6.1), and intermediate goods (4.2).

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