MORNING BRIEFING
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Wishing Upon An R-Star

Check out the accompanying chart collection.

Executive Summary: The Fed has no North Star. Steering monetary policy toward the ideal outcome that would keep both inflation and unemployment low requires knowing where the "neutral" federal funds rate is, i.e., the rate that wouldn't influence either—a.k.a. "r-star." But r-star is a theoretical construct only, neither measurable nor constant. … Also: Joe provides an update on the MegaCap-8 stocks, which haven't been the bullish driving force behind the S&P 500's performance that they were for most of this year. Quite the opposite.

R-Star: Twinkle, Twinkle. In his Jackson Hole *speech* on Friday, Fed Chair Jerome Powell waxed poetic for an instant, saying: "[W]e are navigating by the stars under cloudy skies."

Fed officials regularly suggest—even when their decision making happens under clear skies—that they are guided by their perception of "r-star." The problem is that r-star is a theoretical construct and cannot be measured. Even if it could be measured, what if it isn't constant like the North Star? In this case, even if an econometric model could measure r-star at a particular point in time, its value might move higher or lower unpredictably.

Melissa and I are reminded of the Heisenberg Uncertainty Principle in physics. It states that we cannot know both the position and speed of a particle, such as an electron, with perfect accuracy; the more we nail down the particle's position, the less we know about its speed and vice versa. If we know where it is, we don't know how fast it is going. If we know how fast it is going, we don't know where it is.

What is r-star exactly? Even its various definitions sound fuzzy. Here are a couple of them:

(1) *The New York Times* *interviewed* John C. Williams, president of the Federal Reserve Bank of New York, on August 7. Williams said: "I think of monetary policy primarily in terms of real interest rates, and we set nominal rates." The interviewer explained: "Real interest rates subtract out inflation, while nominal rates include it. Estimates of the so-called 'neutral' rate setting that neither heats nor cools the economy are usually expressed in inflation-adjusted, real terms." The neutral rate is another name for r-star.

(2) A much more convoluted definition can be found in the boilerplate introduction to the FOMC's quarterly *Summary of Economic Projections* (SEP). The SEP shows the median forecasts of the committee for real GDP growth, the unemployment rate, the PCED inflation rate, the core PCED inflation rate, and the federal funds rate. The latest SEP shows these projections for 2023, 2024, 2025, and the "longer run."

The SEP explains: "The longer-run projections represent each participant's assessment of the value to which each variable would be expected to converge, over time, under appropriate monetary policy and in the absence of further shocks to the economy. 'Appropriate monetary policy' is defined as the future path of policy that each participant deems most likely to foster outcomes for economic activity and inflation that best satisfy his or her individual interpretation of the statutory mandate to promote maximum employment and price stability."

Buried in that Fedspeak is the notion that the projected path of the federal funds rate should be the ideal one that over the next three years (or so) takes us to the Promised Land of low unemployment and low inflation, consistent with the Fed's congressional dual mandate. So r-star should be the value of the federal funds rate that over the long run "fosters" the ideal outcomes for economic growth and inflation.

According to June's SEP, the federal funds rate's path should be 5.6%, 4.6%, and 3.4% for 2023, 2024, and 2025 and settle at 2.5% over the longer run. That path should deliver longer-run real GDP growth of 1.8% and inflation of 2.0%. So is 2.5% r-star? No because the 2.5% is a nominal rate, unadjusted for inflation. Okay, then if long-run inflation is 2.0%, r-star would be 0.5%. But wait: Does it make any sense to adjust the federal funds rate, which is an overnight rate, by longer-run inflation, a y/y rate?

This is more astrology than astronomy.

(3) Yesterday, in our *analysis* of Fed Chair Jerome Powell's Jackson Hole Speech, we wrote: "Powell said that the Fed is monitoring real interest rates and that they are 'now positive and well above mainstream estimates of the neutral policy rate,' which is widely referred to as r-star. However, he strongly suggested that r-star is a useless concept for policymakers. We agree. That's because it can't be measured: 'But we cannot identify with certainty the neutral rate of interest, and thus there is always uncertainty about the precise level of monetary policy restraint.'"

(4) In the interview cited above, John Williams explained why he believes that real interest

rates matter: “Assuming inflation continues to come down … next year, as many forecast, including the [FOMC members’] economic projections, if we don’t cut interest rates at some point next year then real interest rates will go up, and up, and up. And that won’t be consistent with our goals. So … from my perspective, to keep maintaining a restrictive stance may very well involve cutting the federal funds rate next year or [the] year after; but really, it’s about how are we affecting real interest rates—not nominal rates.”

That’s the scenario outlined in June’s SEP. It is the one we are rooting for, of course.

Strategy: MegaCap-8 No Longer Providing as Much Oomph. The MegaCap-8 group of stocks (i.e., Alphabet, Amazon, Apple, Meta, Microsoft, Netflix, Nvidia, and Tesla)—currently accounting for about a fourth of the S&P 500’s capitalization—has led the index higher in a big way so far in 2023. The stocks’ improved performances this year in part reflects much improved revenues and earnings growth prospects for most of the eight companies.

Recently, however, the MegaCap-8’s valuation has pulled back and the group’s collective market cap has shrunk some following the companies’ Q2 earnings releases. Even though the companies’ Q2 results were mostly strong and even though these eight stocks still account for a large part of the S&P 500’s market capitalization, their earnings strength hasn’t lifted the S&P 500’s performance the way it had been doing for most of this year. Stock investors’ angst over the bond market seems to be the gating factor.

Currently, the group’s collective valuation isn’t as cheap as it was when the year began but is a good deal cheaper than during 2020-21, when the MegaCap-8’s forward P/E flirted with 39 (*Fig. 1*).

I asked Joe to update us on the MegaCap-8. Here’s his report:

(1) *Market capitalization.* The combined market cap for the MegaCap-8 stocks tumbled 41.5% in 2022 before rebounding 66.8% ytd to an 18-month high of $11.8 trillion through July 18. Since then, it has corrected in garden-variety fashion, dropping 6.4% to $11.0 trillion; that leaves it up 56.2% ytd through Friday’s close (*Fig. 2*).

As a percentage of the S&P 500’s market cap, the group soared from 19.4% at the start of the year to a record-high 27.3% during the July 14 week, before dropping to 26.0% during the August 18 week (*Fig. 3*).

(2) *Valuation slipping after rising sharply.* The MegaCap-8's forward P/E rose above 30.0 in mid-June for the first time in 15 months but has since dropped below that mark, as investor activity has not maintained the group's valuation despite strong Q2 earnings. After the forward P/E bottomed at 21.1 during the January 6 week, it soared 46% to its 2023 high of 31.2 as of the July 14 week. The forward P/E is now down 12% since then to 27.4, which remains below the record high of 38.5 during the August 28, 2020 week.

Looking at the individual MegaCap-8 stocks, forward P/Es rose for all of them from January 6 through mid-July. With the stock market in decline since the end of July amid higher interest rates, just five of the MegaCap-8 stocks now—as of Friday's close—are valued above their January 6 bottoms, as Joe shows below.

Here's how much valuation has changed for each of the MegaCap-8 stocks since the S&P 500's January 6 bottom through Friday's close: Alphabet (up 23% to 20.5 from 16.6), Amazon (down 4% to 47.0 from 48.8), Apple (up 34% to 27.2 from 20.3), Meta (up 14% to 18.2 from 16.0), Microsoft (up 34% to 28.7 from 21.4), Netflix (down 1% to 29.2 from 29.4), Nvidia (down 4% to 33.2 from 34.5), and Tesla (up 152% to 55.5 from 22.0).

Counterintuitively, Nvidia's sharp valuation decline followed the company's stunningly good Q2 earnings release and sharply increased forward guidance, while Tesla's eye-popping valuation gain occurred despite the company's declining forward earnings. It can be disconcerting for investors when valuations temporarily disconnect from a company's earnings prospects, but it can also provide an opportunistic entry point for investors.

(3) *Forward revenues and earnings.* Seven of the MegaCap-8 companies have enjoyed both rising forward revenues and rising forward earnings so far in 2023. The only laggards are Apple's forward revenues and Tesla's forward earnings. As a group, the MegaCap-8's forward revenues has jumped 8.3% ytd, and its forward earnings has soared 23.4%—trouncing the S&P 500's forward revenues rise of 4.0% ytd and forward earnings gain of only 3.4% ytd. (FYI: Forward revenues and earnings are the time-weighted averages of industry analysts' estimates for the current year and following one.)

Here's how each of the MegaCap-8 companies' forward revenues and earnings forecasts have performed ytd: Alphabet (forward revenues up 6.8%, forward earnings up 11.9%), Amazon (9.4, 72.6), Apple (-1.3, 3.5), Meta (18.5, 97.3), Microsoft (6.3, 8.4), Netflix (8.3, 35.7), Nvidia (131.7, 228.8), and Tesla (4.0, -19.3). Nvidia's surge in such a short period on expectations for AI chip sales is stunning, and certainly ranks among the all-time top performers (i.e., since consensus forecasts were first calculated over 40 years ago).

(4) *Forward profit margin.* The S&P 500's forward profit margin has dropped this year, but barely, to 12.5% during the August 20 week from 12.6% at the start of the year (*Fig. 4*). The MegaCap-8's collective margin has surged from 18.0% to 20.6%, with 1.3ppts of that gain coming since the Q2 earnings season started. Among the MegaCap-8s, all but Tesla have seen their forward profit margin rise ytd: Alphabet (up from 23.0% to 25.4%), Amazon (3.0 to 4.7), Apple (25.2 to 26.4), Meta (21.1 to 29.4), Microsoft (34.6 to 34.9), Netflix (14.1 to 17.5), Nvidia (36.7 to 51.5), and Tesla (15.9 to 12.7) (*Fig. 5*).

(5) *Q2 revenue and earnings results*. During 2022, the MegaCap-8's revenues and earnings growth sagged. Quarterly revenues growth remained positive on a y/y basis but dropped to single-digit percentage rates. Earnings fared much worse, falling y/y for four straight quarters through Q1-2023.

During Q2-2023, y/y growth improved markedly for revenues and turned positive again for earnings. The MegaCap-8's revenues rose 10.2% y/y in Q2-2023 following a 4.6% rise in Q1-2023, and the group's earnings jumped 29.9% y/y after declining 3.5% in Q1. In stark contrast, the S&P 500's revenues were up 1.2% y/y during Q2-2023, while its earnings dropped 5.4% y/y.

Calendars

US: Tues: Consumer Confidence 113.4; JOLTS Job Openings 9.793m; S&P/CS HPI 20-City Composite 1.2%m/m/-1.4%y/y; API Weekly Crude Oil Inventories. **Wed:** ADP Employment 195k; GDP 2.4%; PCED Headline & Core Prices 2.2%/2.4%q/q; Corporate Prices 1.3%; Pending Home Sales -0.1%; MBA Mortgage Applications; Crude Oil Inventories & Gasoline Production. (Bloomberg estimates)

Global: Tues: Gfk German Consumer Climate -24.2; France Consumer Confidence 84.0; Spain Retail Sales 0.6%y/y; European Union Economic Forecasts; Bullock. **Wed:** Eurozone Business & Consumer Survey 93.8; Eurozone Inflation Expectations 8.6; Germany CPI 0.2%m/m/6.0%y/y; Germany Import Prices -1.4%m/m/=13.1%y/y; Spain CPI -0.3%; Italy Business & Consumer Confidence 107.7/98.0; Japan Household Confidence 36.6; China M-PMI 49.5. (Bloomberg estimates)

Strategy Indicators

S&P 500/400/600 Forward Earnings (*link*): Forward earnings rose last week for all three indexes simultaneously for the first time in seven weeks. While it's been 61 weeks since any of these indexes has hit a record high, all three are up from their lows during February and March, and LargeCap's may soon reach a new record. LargeCap's forward earnings is now 0.8% below its record high at the end of June 2022; MidCap's is 5.1% below its record high in early June 2022; and SmallCap's is struggling at 12.9% below its mid-June 2022 record. Through the week ending August 25, LargeCap's forward earnings has risen 5.4% from its 54-week low during the week of February 10; MidCap's is 3.3% above its 55-week low during the week of March 10; and SmallCap's is just 0.8% above its 72-week low during the March 17 week. These three indexes' forward earnings downtrend since mid-2022 has been relatively modest compared to their deep double-digit percentage declines during the Great Virus Crisis and the Great Financial Crisis. Forward earnings momentum remains near two-year lows but is no longer worsening. The yearly rate of change in LargeCap's forward earnings was positive last week for the first time in 29 weeks; it has improved to 0.3% y/y from a 29-month low of -3.2% y/y during the June 23 week. Those levels compare to a record-high 42.2% at the end of July 2021 and, on the downside, to -19.3% in May 2020, which was the lowest since October 2009. MidCap's rate of -4.8% y/y is up from a 31-month low of -5.9% in early June, which compares to a record high of 78.8% in May 2021 and a record low of -32.7% in May 2020. SmallCap's -10.4% y/y rate is up from a 32-month low of -12.9% in mid-June and down from a record high of 124.2% in June 2021; it compares to a record low of -41.5% in June 2020. Analysts' consensus earnings forecasts for 2023 and 2024 had been heading steadily lower since June last year, but the 2023 estimate for the S&P 500 ticked higher during the Q1 and Q2 reporting seasons as analysts incorporated the strong earnings beats into their forecasts. Here are the latest consensus earnings growth rates for 2023 and 2024: LargeCap (1.3% and 11.8%), MidCap (-12.0, 13.6), and SmallCap (-11.8, 12.8).

S&P 500/400/600 Valuation (*link*): Valuations were mixed for these three indexes during the August 25 week. LargeCap's forward P/E rose 0.1pt w/w to 18.5 from a 12-week low of 18.4 but is down from an 18-month high of 19.6 during the July 28 week. It's up 3.4pts from its 30-month low of 15.1 at the end of September, which compares to an 11-year low of 11.1 during March 2020. MidCap's forward P/E remained steady w/w at a nine-week low of 13.6, down from a 21-week high of 14.4 during the July 28 week. It's now 1.0pt below its recent 10-month high of 14.7 in early February and up 2.5pts from its 30-month low of 11.1 at the end of September, which compares to a record high of 22.9 in June 2020 and an 11-year low of 10.7 in March 2020. SmallCap's forward P/E fell 0.1pt to a seven-week low of 13.4, which compares to a 21-week high of 14.1 during the July 28 week and is now 0.9pt below its recent 12-month high of 14.3 in early February. It's 2.8 pts above its 14-year low of 10.6 at the end of September and compares to a record low of 10.2 in November 2009 during the Great Financial Crisis. That also compares to its record high of 26.7 in early June 2020 when forward earnings was depressed. The forward P/Es for the SMidCaps have been mostly below LargeCap's since August 2018. MidCap's 27% discount to LargeCap's P/E remains near its 24-year-low 30% discount during the June 23 week. It had been at a 21% discount during the March 17 week, which was near its best reading since November 2021. SmallCap's 28% discount to LargeCap's P/E last week is not much improved from its 21-year low of 32% in April 2022. That compares to a 22% discount during the March 10 week, which was near its lowest discount since August 2021. SmallCap's P/E had been mostly above LargeCap's since 2003. Looking at SmallCap's P/E relative to MidCap's, it was at a discount for a 115th straight week; the current 1% discount is near its lowest since July 2021 and an improvement from its 20-year-low 9% discount in December 2021.

S&P 500 Sectors Quarterly Earnings Outlook (*link*): Following the Q3-2020 earnings season, when the US economy emerged from the Covid shutdown, analysts began raising their consensus forecasts for future quarters instead of lowering them as is the historical norm. That six-quarter streak of positive revisions throughout the quarter ended during Q1-2022, and the estimate declines accelerated considerably for the three quarters through Q1-2023 before easing for Q2-2023. Looking at Q3-2023, the revisions pendulum turned positive again in the latest week as analysts have now increased their estimates since the beginning of the quarter eight weeks ago. They're now forecasting that the S&P 500's earnings decline will improve to -0.1% y/y in Q3-2023 from -5.3% in Q2-2023, which likely marked the cyclical bottom for earnings growth. On a pro forma basis, they expect a y/y earnings gain of 1.9% in Q3, up from a 3.0% decline in Q2-2023. S&P 500 ex-Energy earnings are forecasted to be up 7.5% y/y in Q3-2023, an improvement from the 3.4% gain in Q2-2023, the 1.6% decline in Q1-2023, and the 7.4% drop in Q4-2022. Seven sectors are expected to record positive y/y percentage earnings growth in Q3-2023, unchanged from Q2-2023's count. However, that's up from five sectors that did so in Q1-2023 and up from only two in Q4-2022. Here are the S&P 500 sectors' expected earnings growth rates for Q3-2023 versus their nearly final earnings growth rates for Q2-2023: Communication Services (34.6% in Q3-2023 versus 16.0% in Q2-2023), Consumer Discretionary (22.0, 54.9), Financials (15.1, 9.9), Industrials (13.2, 15.7), Utilities (12.9, 0.6), S&P 500 ex-Energy (7.5, 3.4), Information Technology (5.3, 4.7), Consumer Staples (2.4, 8.7), S&P 500 (1.9, -3.0), Real Estate (-6.7, -2.2), Health Care (-10.0, -26.7), Materials (-19.5, -26.4), and Energy (-38.8, -47.7).

US Economic Indicators

Regional M-PMIs (*link*): Five Fed districts have now reported on manufacturing activity for August—New York, Philadelphia, Kansas City, Richmond, and Dallas. *Manufacturing activity* (to -6.2 from -10.5) continued to contract this month, though at a slower pace, easing from March's -14.3, as the Philadelphia (to 12.0 from -13.5) region moved from contraction to expansion and the Kansas City (0.0 from -11.0) region stopped falling. Meanwhile, the New York (-19.0 from 1.1) area dropped back into contractionary territory, while the Richmond (-7.0 from -9.0) and Dallas (-17.2 from -20.0) regions continued to decline at a steady pace. *New orders* (-6.7 from -14.1) moved back near the breakeven point between expansion and contraction this month, as billings in the Philadelphia (16.0 from -15.9) area experienced a wide 31.9-point swing back into expansionary territory while orders in the Kansas City (-3.0 to -20.0) moved closer to the breakeven point and Richmond (-11.0 from -20.0) billings declined at half July's pace. Meanwhile, billings in the New York (-19.9 from 3.3) region plunged into negative territory, and Dallas' (-15.8 from -18.1) measure continued to contract at a fast pace. *Employment* (-1.0 from 4.5) showed factories are slow to hire, bouncing around zero the past few months. The New York (-1.4 from 4.7), Richmond (-3.0 from 5.0), and Philadelphia (-6.0 from -1.0) regions showed slight contractions during August, while Kansas City's (1.0 from 4.0) barely budged. Dallas (4.3 from 10.0) factories continued to hire, though at a slower pace.

Regional Prices Paid & Received Measures (*link*): We now have August prices-paid and -received data for the five Fed regions—New York, Philadelphia, Richmond, Kansas City, and Dallas. (Note: The New York, Philadelphia, Dallas, and Kansas City measures are diffusion indexes, while Richmond's measures are average annualized inflation rates—which we multiply by 10 for easier comparison to the other regional measures.) The *prices-paid* measure in August accelerated for the second month, to 21.6, after slowing steadily from 40.7 in February to 16.7 in June. It peaked at 90.1 during November 2021. Looking at *regional prices-paid* indexes, the Philadelphia (20.8 from 9.5) measure showed an acceleration from April's 8.2 reading, its lowest since mid-2020; New York's (25.2 from 16.7) accelerated from July's pace, the slowest since August 2020; and Dallas' (17.4 from 10.5) picked from a recent low of 1.4 in June, the lowest since April 2020. The Philadelphia's measure was at a recent high of 83.6 in November 2021, while New York's was at a record high of 86.4 in April 2022, and Dallas's was at a record 84.1 November 2021. The Kansas City (13.0 from 9.0) region also showed a pickup in prices from June's three-year low of 4.0; it was at a record-high 84.0 in May and October 2021. Meanwhile, the Richmond (31.7 from 40.7) region continued to show an easing of price pressures, dropping to its slowest pace since December 2020; it was at a record high of 152.9 last May. Turning to the *prices-received* measure, it fell to 10.7 in August, the lowest since October 2020; it has averaged 11.4 over the past three months. It was at a record high of 59.0 in March 2022. Looking at *regional prices-received* indexes, they were mixed. New York's (12.6 from 3.9) picked up a bit from July's three-year low; it was at a record high of 56.1 in March 2022. Meanwhile, Philadelphia's gauge moved down to 14.1 after climbing from -7.0 in May to 23.0 during July. It was at a record high of 65.8 in November 2021. Richmond's (31.1 from 40.1) measure eased to its slowest pace since January 2021, down from last June's record high of 106.3, while Kansas City's (-6.0 from -7.0) was the weakest since the pandemic; it reached a record high of 60.0 during summer 2021. Dallas' (1.8 from 2.3) measure has been hovering around zero the past four months. It reached a record high of 51.3 in October 2021.

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