



June 4, 2024

## Morning Briefing

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### Wishing Upon An R-Star

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Check out the accompanying [chart collection](#).

**Executive Summary:** Fed officials lately have been talking a lot about “ $r^*$ ”—that ideal level of the federal funds rate that would represent just enough restrictiveness for economic growth without undesirably high inflation or unemployment.  $R^*$  would be a great monetary policy tool if only it could be pinpointed. But as a notional concept that’s not easily measured, its utility is limited. Today, Eric presents a primer on  $r^*$ , explaining the variables affecting it and how the Fed’s view of where  $r^*$  lies affects monetary policy. Some Fed policymakers are theorizing that  $r^*$  has risen in the post-pandemic era, which explains the economy’s imperviousness to higher interest rates. That would suggest comfortability with “normal-for-longer” interest rates.

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**Weekly Webcast.** If you missed Monday’s live webcast, you can view a replay [here](#).

**Neutral Rate I: Restrictive or Not?** Fed officials are struggling to ascertain whether monetary policy is restrictive enough to lower inflation to their 2.0% y/y target without causing a recession, which would send the unemployment rate soaring. That’s because their so-called “dual mandate” requires the Fed to keep both the inflation rate and the unemployment rate low. So, Fed officials have been hitting the media circuit recently discussing “ $r^*$ ”—i.e., the long-run neutral (or “natural”) short-term interest rate that would coincide with full employment and stable inflation at the Fed’s 2.0% target over the long run.

Currently, Fed officials are aiming to keep the federal funds rate (FFR) high enough relative to  $r^*$  to slow inflation even if that also slows economic growth. Presumably, once they get inflation down to 2.0%, they would turn less restrictive to avoid a recession by lowering the inflation-adjusted (real) FFR to  $r^*$ . In theory, expected inflation should be used to adjust rates rather than actual inflation.

In a perfect world, the nominal FFR would settle at a level that fosters stable inflation at a constant 2.0%. So,  $r^*$  would be that FFR less the non-accelerating 2.0% inflation rate. Furthermore, the theory goes, that ideal FFR would foster the ideal unemployment rate-- which is often called the “non-accelerating inflation rate of unemployment,” or “NAIRU.” Life

is good in this perfect world.

One of our accounts asked us to weigh in on  $r^*$  now that it's omnipresent in the financial media. We'll discuss the drivers of  $r^*$ , why Fed officials think it's rising, how that will influence monetary policy, and the upshot for financial markets.

In recent years, policymakers have started using it to judge whether the FFR is restrictive (above  $r^*$ ) or loose (below  $r^*$ ).

According to the Fed's [Summary of Economic Projections](#), which is released quarterly at FOMC meetings, the committee consensus since 2019 has been that  $r^*$  is roughly 2.5% in nominal terms, or 0.5% adjusted for their 2.0% inflation target ([Fig. 1](#)). In March, the median expectation was raised by 0.1% to 2.6%. That's a long way from the 4.3% point projected back in 2012.

**Neutral Rate II: Talking Fed Heads.** Why are we talking about  $r^*$  now? A slew of current and former Fed officials has argued in recent weeks that they think  $r^*$  is higher in the post-pandemic world.

To ascertain where  $r^*$  may be, economists judge investment and savings trends as well as monetary policy expectations. Secular inflationary forces raise  $r^*$ , while deflationary factors weigh on it.

That said, it seems that Fed officials have been raising their estimate for  $r^*$  as an explanation for the economy's resilience in the face of higher rates. Here's what they've been saying:

(1) Atlanta Fed President Raphael Bostic recently told reporters that the Fed is holding active discussions on  $r^*$  and that "there may be reasons to think the baseline steady state" is higher. He said at a [conference](#) that he thinks policy is restrictive and still sees rate cuts in Q4.

(2) Governor Christopher Waller recently gave an entire [speech](#) on  $r^*$ . He concluded that America's unsustainable fiscal path is likely pushing  $r^*$  higher now and will continue to in the future.

(3) Former New York Fed President William Dudley wrote in [Bloomberg](#) that  $r^*$  could be as high as 2%, which would put neutral short-term rates at around 5% (after tacking on 3%

inflation). With the FFR target range just 0.25%-0.50% higher, no wonder interest-rate hikes are exerting a negligible drag on the economy, Dudley surmised.

**Neutral Rate III: Which  $R^*$ ?** If a simple tool to judge how restrictive monetary policy is sounds too good to be true, that's because it is.  $R^*$  is unobservable, unmeasurable, and unstable (read: unpredictable). Better yet, policies like quantitative easing and quantitative tightening themselves can alter the level of  $r^*$  by affecting demand for Treasury securities.

There are ways to measure the real interest rate, which might (or might not) be  $r^*$  at any point in time. One is to take the difference of the 10-year nominal Treasury yield and longer-run inflation expectations (we use the median forecast of y/y CPI over the next 10 years from the Philly Fed's survey of professional forecasters). That takes us to 2.2% today (4.5% 10-year minus 2.3% forecast) ([Fig. 2](#)).

Simply using the yield on 10-year Treasury Inflation Protected Securities (TIPS) is another way to go there—that puts  $r^*$  between 2.1% and 2.2%. The spread between the 10-year Treasury yield and the actual inflation rate tracks the TIPS yield closely and is available further back in time.

Most Fed officials use a different measure of the real interest rate than we just discussed, adjusting the FFR by surveyed inflation expectations over the next 5-10 years. We don't think it makes sense to subtract a subjective measure of long-range inflation prospects from an overnight rate; Fed officials do it because they set the FFR, not long-term yields.

So we can add the ambiguity inherent in how policymakers estimate the real rate and the ideal  $r^*$  to our list of issues with it.

**Neutral Rate IV: The Fall of  $R^*$ .** The neutral rate apparently declined for decades, starting after interest rates and inflation normalized in the 1980s all the way until 2020, when Covid-19 upended the economy. The cost of capital fell due to these transformations:

(1) Rising global savings increased demand for safe assets just as the US was becoming the leading purveyor of them. The US trade deficit exploded (now at \$1.11 trillion) as households and businesses consumed more than the country could produce ([Fig. 3](#)). The accompanying federal deficit provided the world with a lot of Treasuries to invest their earned dollars.

The buildup of international reserves after the 1998 Asian financial crisis, increasing to \$15

trillion today from \$1 trillion in the early 1990s, added further demand. Former Fed Chairs Ben Bernanke and Alan Greenspan both said this global savings glut drove down long-term interest rates in the US. Capital flows give credit to that theory. Foreigners plowed \$1.19 trillion into the US in the 12 months ended September 2006, the record before inflows surged again after the pandemic ([Fig. 4](#)).

Foreign purchases of Treasury securities propped up prices and drove down yields. As long as demand outstrips supply,  $r^*$  should be low. That's the crux of Governor Waller's running theory. He also says that the US became a less volatile place to invest. In our opinion, a flatter business cycle stems from a shift in the US economy away from capital-dependent manufacturing and toward services and technology.

(2) Aging populations are more risk averse and thus demand savings over investment. Japan's population has been shrinking since 2011; it fell by roughly 600,000 people in the 12 months ended May to below 124 million ([Fig. 5](#)). China's working-age population has come off its rapid growth and is projected to start declining later this decade ([Fig. 6](#)).

Urbanites now make up roughly two-thirds of China's population, up from less than 20% in 1980 ([Fig. 7](#)). The higher cost of having children in a less agrarian economy combined with the lingering effects of draconian child-limiting policies have greatly reduced the world's—workforce as a percentage of the total population.

Fewer young workers available to provide services to retirees plus longer lifespans can crimp innovation and productivity. A record 48% of Americans aged 65 and older are not in the labor force ([Fig. 8](#)). They represent a record-high 22% of the total working-age population ([Fig. 9](#)).

(3) After the Great Financial Crisis (GFC), households and businesses deleveraged. Nonfinancial debt as a percent of nominal GDP has largely declined from its peak of 203% in Q3-2009 when excluding the government's debt ([Fig. 10](#)).

Banks have become major lenders to the US government, thanks to regulatory reforms following the GFC. Commercial banks hold \$4.2 trillion of Treasuries and agency-backed debt, up significantly from \$1.1 trillion in 2007 ([Fig. 11](#)).

(4) The Fed bought trillions of dollars' worth of bonds ([Fig. 12](#)). A large, price-insensitive buyer had emerged, one that sets forward policy guidance with its purchases. Buying bonds (and communications about bond-buying) told the market that interest rates will remain at or

near the zero lower bound for the foreseeable future.

(5) Expansionary monetary policy allowed zombie companies to continue running unprofitably. That extra capacity added slack and reduced profitability for other businesses, a deflationary force that counterintuitively emerged from easy money policies.

The liquidity trap of ultra-low rates didn't force investors to hold cash, just to reach for yield in riskier assets, leading to asset-price inflation.

**Neutral Rate V: Rising R\*.** The US economy has proven its ability to handle higher interest rates. Here's why several Fed officials seem to be convinced that  $r^*$  is higher today than it was five years ago:

(1) Deglobalization and onshoring weaken trade and raise the cost of doing business. In the long run, that lessens the current account surpluses of exporting nations, decreasing global demand for savings. Geopolitical tensions also create a more fractured world. War is inflationary.

(2) With the US running a federal deficit that's 5.4% of GDP during an economic expansion, we're not surprised by the economy's brisk growth ([Fig. 13](#)). Recent fiscal packages are aimed at green energy and capital expenditures. Manufacturing structures construction has soared to \$227.6 billion (saar) from \$72.7 billion in 2020 ([Fig. 14](#)).

(3) The Fed is offloading government debt rather than buying it. The composition of buyers for long-term Treasuries has a more precarious outlook after the Treasury Department had to lean on money-market funds to finance bills issuance in lieu of sourcing enough demand for coupons. Bills held by the public grew \$1.9 trillion over the 12 months ended April ([Fig. 15](#)). More supply and less demand equals higher rates.

(4) Rising productivity raises demand for investment. Automation, robotics, and now artificial intelligence have quickened the growth in productivity to 2.9% y/y ([Fig. 16](#)). While the need to build data centers is inflationary, the resultant higher productivity can tether both unit labor costs and interest rates over the long term.

**Neutral Rate VI: Tolerating Inflation.** A few economists have opined that a 2.0% inflation target should be flexible to avoid unnecessary economic pain, like a recession. That's a questionable proposal that, in our opinion, would undermine central bank credibility and raise bond yields to levels that threaten stocks. Here's why:

(1) Long-term inflation expectations have remained anchored because the markets believe that the Fed will achieve its goals. Consumers see inflation around 2.8% over the medium term, per the New York Fed's consumer survey ([Fig. 17](#)).

(2) Shifting the goalpost on inflation would likely cause investors to demand much higher rates on long-dated US debt. If the Fed were to do that, we'd expect the 10-year Treasury yield to rise above 5% toward 6%.

In this hypothetical, real rates could easily reach 3.0% and inflation expectations would increase from 2.5% to 3.0%. Stock valuations would be snipped even if corporate earnings remained supported by strong nominal growth, perhaps to a forward P/E on the S&P 500 closer to 16 than 20 as our current price targets assume—bringing our S&P 500 forecasts for the following year-ends down to these: 2024 (4320), 2025 (4800), and 2026 (5200) ([Fig. 18](#)). We'd also expect a weaker dollar and higher volatility in financial markets.

(3) A higher  $r^*$  would impact financial markets in so far as it affects Fed policy; markets already consider and price inflationary forces. It already seems to be inciting dissent among Fed officials—the latest FOMC meeting minutes reflected disagreement over slowing balance sheet runoff.

(4) The Treasury Department temporarily solved America's funding issue, but the long-term trajectory remains problematic. Raising more revenues through taxes or decreasing outlays through budget cuts are the only viable means by which real rates (or  $r^*$ ) will fall. The Fed is unlikely to buy trillions more of bonds, deglobalization looks here to stay, and both tariffs and deficit spending are on the agendas of both major US political parties.

Our bottom line: We might not be able to measure  $r^*$  directly, but we should be able to determine when we get there. In our opinion, we are at  $r^*$  if inflation continues to moderate to 2.0% with the economy growing.

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## Calendars

**US: Tues:** JOLTs Job Openings 8.4m; Factory Orders 0.7%; API Weekly Crude Oil Inventories. **Wed:** ADP Employment Change 175k; ISM NM-PMI 50.5; S&P C-PMI & NM-PMI 54.4/54.8; MBA Mortgage Applications; Crude Oil Inventories & Gasoline Production. (FXStreet estimates)

**Global: Tues:** Germany Unemployment Change 7k; Germany Unemployment Rate 5.9%; Australia GDP 0.2%q/q/1.2%y/y; China Caixin NM-PMI 52.6; Fernandez-Bollo; Mauderer.  
**Wed:** Eurozone, Germany, and France C-PMIs 52.3/52.2/49.1; Eurozone, Germany, France, and Italy NM-PMIs 53.3/53.9/49.4/54.5; France Industrial Production 0.5%; UK C-PMI & NM-PMI 52.8/52.9; Eurozone PPI -0.5%; BoC Interest Rate Decision 4.75%; McCaul. (FXStreet estimates)

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## Strategy Indicators

**S&P 500/400/600 Forward Earnings ([link](#)):** Forward earnings rose last week simultaneously for all three of these indexes, and has done so in six of the past seven weeks. LargeCap's forward earnings rose 0.5% w/w to a new record high. It has achieved new record highs for 22 straight weeks and in 33 of the 38 weeks since mid-September; last week matches the lengthiest string of record-high forward earnings for LargeCap in 22 months (since the April 29 week of 2022, when it hit record highs for 22 straight weeks). MidCap's rose 0.3% w/w and improved to 3.1% below its record high in early June 2022. SmallCap's rose less than 0.1% w/w to 10.8% below its mid-June 2022 record. Through the week ending May 30, LargeCap's forward earnings has soared 14.9% from its 54-week low during the week of February 1, 2023; MidCap's is 5.4% above its 55-week low during the week of March 10, 2023; and SmallCap's is 3.3% above its 72-week low during the March 17, 2023 week. These three indexes' forward earnings downtrends since mid-2022 have been relatively modest compared to their deep double-digit percentage declines during the Great Virus Crisis and the Great Financial Crisis. Their forward earnings momentum has improved from three-year lows a year ago, but LargeCap's is improving faster than the SMidCap's. Here are the latest consensus earnings growth rates for 2024 and 2025: LargeCap (10.5%, 14.3%), MidCap (3.2, 16.4), and SmallCap (-4.0, 19.2).

**S&P 500/400/600 Valuation ([link](#)):** Valuations were mixed during the May 30 week for these three indexes and remain slightly below their recent two-year highs. LargeCap's forward P/E was down 0.2pts w/w to a four-week low of 20.3. That's down from a 27-month high of 20.9 at the end of March and up from a seven-month low of 17.0 during the October 27 week. It's now up 5.2pts from its 30-month low of 15.1 at the end of September 2022, which compares to an 11-year low of 11.1 during March 2020. MidCap's forward P/E was unchanged at 15.4. That's down from a 27-month high of 16.0 at the end of March. That's up 3.1pts from a 12-month low of 12.3 at the end of October. It's now up 4.3pts from its 30-month low of 11.1 at the end of September 2022; these compare 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 was up 0.1pt

w/w to 14.5, but down from a 28-month high of 14.7 during the May 17 week. It's up 3.9pts from its 14-year low of 10.6 in September 2022 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 24% discount to LargeCap's P/E is up from its 24-year-low 29% discount during the June 1, 2023 week. It had been at a 19% discount during the March 2, 2023 week, which was near its best reading since October 14, 2021. SmallCap's 30% discount is up from a 23-year-low 34% discount during the October 19, 2023 week, which compares to a 20% discount during the March 2, 2023 week; that one was near its lowest discount since August 2021. The SMidCap's P/Es had been mostly above LargeCap's from 2003 to 2018.

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## US Economic Indicators

**Construction Spending** ([link](#)): Construction spending fell short of expectations again in April as higher interest rates depressed nonresidential investment, though overall spending continues to bounce around record highs. Total construction spending fell for the second month, slipping 0.1% in April following March's 0.2% shortfall, though was up 10.0% versus a year ago. Spending on private nonresidential projects slipped 0.3% in April, with the biggest declines occurring in religious (-3.5%), educational (-3.1), and health care (-2.9) building, though the y/y percentage gains for all three are in double digits, with total private nonresidential investment up 8.3% versus a year ago. Private residential construction spending edged up 0.1% in April, with single-family construction up 0.1% and multi-family investment down 0.3%. Versus a year ago, residential investment is up 8.0%, with single-family construction soaring 20.4% and multi-family construction up 2.3%. Total public construction remains around record highs, slipping 0.2% in April, though is up 16.7% versus a year ago.

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## Global Economic Indicators

**Global Manufacturing PMIs** ([link](#)): The growth rate of global manufacturing activity rose to a 22-month high in May, remaining above the breakeven point of 50.0 for the fourth successive month following a 16-month string of gains below the breakeven point. The JP Morgan Global M-PMI climbed for the fourth time in five months, from 49.0 in December to 50.9 in May. Three out of the five PMI sub-indices—output, new orders, and employment—



showed signs of improvement during the month, with manufacturing production expanding at the fastest pace since December 2021. By country, 19 of the 28 countries for which data are available expanded in May, with India, Greece, and Russia once again finishing one, two, three and with Spain and the Netherlands rounding out the top five spots. Growth rates in the US, China, and the UK accelerated last month, while rates of contraction eased in the Japan and the Eurozone. Turning to prices, price pressures accelerated, with May's input costs (54.8 from 54.1) at a 15-month high and output charges (51.8 from 51.5) the fastest in 14 months. For both price measures, rates of increase were steeper, on average, in developed nations compared to emerging markets.

**US Manufacturing PMI ([link](#)):** Manufacturing activity in May contracted again, while price pressures eased. The M-PMI fell for the second month, to 49.2 in April and 48.7 in May, after climbing from 47.8 in February to 50.3 in March. It was below the breakeven point between contraction and expansion for the 18th time in the past 19 months. According to ISM, the overall economy continued its expansion for the 49th month after a one-month contraction in April 2020. (A Manufacturing PMI above 42.5% over a period of time generally indicates an expansion of the overall economy.) The production (to 50.2 from 51.3) measure continued to expand in May, though was only a couple of ticks above the breakeven point of 50.0, while the new orders (45.4 from 49.1) gauge fell further below 50.0; the inventories (47.9 from 48.2) gauge contracted at a slightly faster pace. Meanwhile, the supplier deliveries measure was unchanged at 48.9, continuing to hover just below 50.0, with a reading above 50.0 indicating slower deliveries—typical as the economy improves and customer demand strengthens. Meanwhile, manufacturers added to payrolls for the first time since last September, with the employment (51.1 from 48.6) gauge moving back above 50.0. Price pressures eased a bit, with the prices-paid index slipping to 57.0 in May after climbing from a recent low of 41.8 last June to 60.9 this April.

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