



MORNING BRIEFING

March 19, 2019

G-Star Astrology

See the [collection](#) of the individual charts linked below.

(1) Wish upon an r-star and g-star. (2) Ranting about Fed's reliance on astrology. (3) Business output outpacing real GDP by a full percentage point. (4) More potential for growth if labor shortages stimulate labor-saving innovations. (5) Fed's pause may be justified even if economic growth picks up over the rest of the year. (6) Not much cost-push inflation from labor markets. (7) Pensions are underfunded, especially government-sponsored ones. (8) Lots more millionaires hiding in public sector. (9) Life is exceptionally good if you can retire at 50 and live until 90.

US Economy: Another Star or Just Another Black Hole? Everyone has heard of “r-star” (r^*)—at least everyone in our business. Google it, and the first search-results page is replete with links to articles about the “real interest rate” that allows the economy to expand with its underlying potential without boosting inflationary pressures. So it is consistent with NAIRU, another widely recognized term, for the non-accelerating inflation rate of unemployment. Presumably, if the Fed can find r^* , then the economy will be at the lowest unemployment rate possible without boosting inflation. In this utopian state, the so-called “output gap” between real GDP and its potential (which is yet another widely recognized bit of economic jargon) would be zero.

But have you heard of “g-star” (g^*)? Melissa and I must have missed reading about it until we read FRB-NY President John C. Williams' 3/6 [speech](#) titled: “The Economic Outlook: The ‘New Normal’ Is Now.” The concept doesn't appear on the first page of the Google search for this particular star. Instead, there are numerous links to G-Star Raw, a Dutch designer clothing company.

G-star is one of the major factors determining r-star, explained Williams. He stated: “G-star is what economists mean when they describe trend growth, sustainable growth, or potential growth of the economy. The two main drivers of g-star are labor force growth and productivity growth.” According to Williams, g^* appears to be around 2.0%. He expects actual real GDP growth “to slow considerably relative to last year, to around 2.0%,” putting it “right in-line with g-star.”

In my 2018 book [Predicting the Markets](#), I ranted as follows:

“When might the central bankers realize that concepts such as the non-accelerating inflation rate of unemployment (NAIRU) and the natural real rate of interest (r^*), while interesting as intellectual exercises, cannot actually be measured? Attempts to estimate them have strongly suggested that they aren't constants. For central bankers, utopia would be a world where m , V , NAIRU, and r^* are all constant or at least measurable and predictable. By the way, the word ‘utopia’ comes from the fictional society in Sir Thomas More's 1516 book *Utopia*. He created the name from the ancient Greek words for ‘no’ and ‘place.’” (Note: The “ m ” I refer to is the money multiplier and “ V ” the velocity of money.)

I would say the same about g^* . Actually, Melissa and I believe that Williams is gazing upon the wrong star! His telescope is focusing on the subpar potential growth of real GDP. He should be focusing on

the real output of the non-farm business (NFB) sector, which has been growing closer to 3.0%.

Williams seems to be saying that the coming slowdown in real GDP growth back to 2.0% justifies the Fed's decision to be "patient" with further interest-rate increases for now. We agree that a pause is justified, but we believe that the potential growth of the economy may be closer to 3.0% if productivity growth is making a comeback, as we expect. Consider the following:

(1) *Real GDP vs NFB output.* Unlike the real GDP headline measure, NFB real output excludes government spending. As noted above, the two drivers of overall economic growth for the purposes of monetary policy decision-making are the growth rates of the labor force and productivity. Government spending is largely unrelated to either of these economic factors, so it makes sense to us to exclude it.

NFB real output rose at a robust pace of 3.7% y/y during Q4-2018, outpacing real GDP's 3.1% increase ([Fig. 1](#)). Not surprisingly, the growth in real GDP excluding government spending has outpaced the headline measure since late 2016, with a Q4-2018 reading of 3.4% ([Fig. 2](#)).

(2) *NFB output & productivity.* Total hours worked accounted for 1.9ppts of the NFB output gain over the past four quarters through Q4-2018, while productivity accounted for the remaining 1.8ppts ([Fig. 3](#) and [Fig. 4](#)).

Productivity growth fell slightly below zero during Q2-2016 and Q3-2016 and has been trending higher since then. Its 1.8% reading during Q4-2018 was the highest since Q1-2015.

Meanwhile, the growth of hours worked edged down to 1.9% over the same period. Shortages of workers, particularly skilled and experienced ones, may be forcing more and more companies to implement labor-saving innovations, boosting productivity.

(3) *Labor costs & inflation.* The quarterly [Productivity & Costs](#) report produced by the Bureau of Labor Statistics includes data on NFB hourly compensation, a much more volatile measure than the Employment Cost Index (ECI) for private industry. We track the yearly growth rate in the ratio of the ECI to NFB productivity to measure labor costs and their influence on the inflation rate. The ratio's inflationary push has been remarkably subdued since the mid-1990s ([Fig. 5](#)). Since then, price inflation has remained subdued as well.

(4) *Productivity and real compensation.* By the way, the uptrend in productivity is reflected in the comparable uptrend in inflation-adjusted hourly compensation, just as predicted in the microeconomic textbooks. In competitive product and labor markets, workers' real pay should be determined by their marginal productivity.

It's been widely noted that income inequality has been exacerbated by the widening gap between productivity and the official measure of NFB hourly compensation divided by the Consumer Price Index (CPI) ([Fig. 6](#)). That "productivity gap" narrows significantly using the NFB price deflator rather than the CPI to deflate hourly compensation. The CPI has an upward bias drift compared to price deflator measures. Furthermore, in determining wages, employers are influenced by the prices they receive, not the ones that consumers pay. A producer of widgets isn't in the business of producing gasoline or bread.

(5) *Output gap & NAIRU.* Both real GDP and the unemployment rate are back at readings consistent with the perfect alignment of the stars according to the star-gazers at the Fed.

Real GDP as a ratio of real potential output reached precisely 1.00 as of Q2-2018 and was 1.01 as of

Q4-2018 ([Fig. 7](#)). In other words, actual output is spot-on with its potential after having fallen well below it since 2009.

When unemployment peaked following the recession at 10.0%, it had well exceeded NAIRU estimated at around 5.0% ([Fig. 8](#)). But now actual unemployment of 3.8% has fallen below NAIRU of 4.6%.

Are NAIRU and the output gap starting to venture into accelerating-inflation territory? We doubt it given our view that g^* may be closer to 3.0% than to 2.0%. All the more reason for the Fed to pause, even if economic growth makes a comeback from Q1's apparent soft patch. (In the video podcast linked above, I review the seasonality problem that has been weighing on Q1 real GDP stats since the 2008 financial crisis.)

Pensions I: Funded & Unfunded. We continue to dive into the Fed's [Financial Accounts of the United States](#), which was released recently with data through Q4-2018. Last week, we observed that the biggest asset on the balance sheet of the household sector in the Fed's accounts is an item titled "pension entitlements." It ended last year at \$25.6 trillion, slightly below its record high at the end of Q3-2018 ([Fig. 9](#)). The second-biggest asset on the household sector's balance sheet at the end of last year was directly held stocks (\$16.1 trillion), followed by owners' equity in household real estate (\$15.5 trillion), equity in non-corporate business (\$13.1 trillion), time and savings deposits (\$9.7 trillion), and mutual fund shares (\$7.8 trillion). (See [Table L.101](#).)

There are lots of devils in the details, however. Our main focus today is on pension entitlements. One of our accounts had a closer look at it and suggested we do the same. Without any further ado, here goes:

(1) *Household retirement entitlements* includes public and private defined benefit and defined contribution pension plans and annuities, including those in IRAs and at life insurance companies. It excludes Social Security.

The Fed's accounts provide data on the amounts of these entitlements that are funded and unfunded. The latter category is described as "claims of pension fund on sponsor." At the end of last year, of the \$25.6 trillion in entitlements, \$18.7 trillion was funded, while \$6.9 trillion (or 27%) was unfunded ([Fig. 10](#)).

(2) *Private pension liabilities* are the actuarial value of accrued pension entitlements in private defined benefit plans and defined contribution plans. These liabilities are assets of the household sector.

At the end of last year, these liabilities totaled \$9.4 trillion, with \$8.9 trillion funded and \$0.6 trillion unfunded ([Fig. 11](#)). (See [Table L.118](#).) In other words, the private sector's pension plans are in good shape.

(3) *State and local government employee retirement funds* are woefully underfunded. The problem is with defined benefit plans, which totaled \$8.6 trillion at the end of last year, accounting for almost all of the \$9.1 trillion in state and local government retirement funds. Of this total, a whopping \$4.7 trillion (or 52%) was unfunded! Again, in the Fed's accounts, the unfunded item is described as "claims of pension fund on sponsor" ([Fig. 12](#)). (See [Table L.120](#).)

Guess who is the sponsor that owes all this money? It's taxpayers, of course, many of whom helped to elect politicians who made contractual retirement promises to their municipal employees that far exceed the assets available to meet these obligations. So the unfunded amount is financed by the IOUs of taxpayers.

The result has been rising tax rates to meet these retirement liabilities on a pay-as-you-go basis. In many states, cities, and towns, the politicians are running into resistance to higher taxes and have been forced to reduce spending on public services and infrastructure.

(4) *Federal government employee retirement funds* had liabilities totaling \$4.0 trillion at the end of last year, with \$1.7 trillion of them unfunded. (See [Table L.119](#).)

(5) *Social Security* is not included in the Fed's accounts as an asset of the household sector.

Pensions II: Lots of Retired Public Employees Are Millionaires. The massive underfunding of federal, state, and local retirement funds increasingly reflects some inconvenient truths about the public employee retirement system. Most public-sector employees are hard-working and dedicated workers, who are permitted to retire in their 40s and 50s because they have had tough jobs as cops, firefighters, and teachers.

The problem is that contractually they are entitled to start receiving their retirement benefits right away rather than at the more traditional retirement age of 65 in the private sector. As longevity has increased, many of these folks are living longer, which is one of the main reasons that the public employee retirement plans are increasingly underfunded.

Measures of income inequality never consider the fact that a growing number of retired public employees are millionaires, in effect, when taking into account the present discounted value of their contractually guaranteed retirement benefits. At current interest rates, the rest of us working stiffs would have to amass a few million dollars in savings to match the retirement income received by the many public pensioners living 20-40 years past their first month of retirement.

CALENDARS

US. Tues: Factory Orders 0.3%. **Wed:** MBA Mortgage Applications, FOMC Rate Decision 2.25%-2.50%, Interest Rate on Excess Reserves 2.40%. (DailyFX estimates)

Global. Tues: Germany ZEW Survey Current Situation & Expectations 13/-11, UK Employment Change & Unemployment Rate (3-month) 120k/4.0%, BOJ Minutes of January Policy Meeting, RBA Minutes of March Policy Meeting. **Wed:** UK Headline & Core CPI 1.8%/1.9% y/y. (DailyFX estimates)

STRATEGY INDICATORS

S&P 500/400/600 Forward Earnings ([link](#)): LargeCap's forward earnings rose for a third week for the first time in five months. MidCap's rose for the first time in 10 weeks, while SmallCap's was down for a tenth straight week. All three of these indexes are still on the downtrend that began in late October. LargeCap's forward EPS improved to 1.9% below its record high of \$175.48 in late October, while MidCap's and SmallCap's are now 2.8% and 8.0% below their mid-October highs, respectively. LargeCap's forward EPS had been the most below its record high since June 2016, while MidCap and SmallCap have not been this far below since February 2016 and October 2010, respectively. The yearly change in forward earnings soared to cyclical highs during 2018 due to the boost from the Tax Cuts and Jobs Act, but is tumbling now as y/y comparisons become more difficult. In the latest week, the rate of change in LargeCap's forward earnings was steady at a 26-month low of 6.6% y/y. That's down from 23.2% in mid-September, which was the highest since January 2011 and compares to a six-year low of -1.8% in October 2015. MidCap's y/y change was down to a 26-month low of 7.0% from 7.3%, which compares to 24.1% in mid-September (the highest since April 2011) and a six-year low of -

1.3% in December 2015. SmallCap's dropped to a 28-month low of 7.9% from 8.6%, which is down from an eight-year high of 35.3% in early October and compares to a six-year low of 0.3% in December 2015. Analysts had been expecting double-digit percentage earnings growth in 2019, but those forecasts have been dropping since October. Here are the latest consensus earnings growth rates for 2018, 2019, and 2020: LargeCap (22.5%, 3.6%, 12.0%), MidCap (23.1, 3.0, 12.4), and SmallCap (21.4, 6.3, 17.3).

S&P 500/400/600 Valuation ([link](#)): Forward P/E ratios rose w/w from four-week lows for these indexes, to levels well above their multi-year lows in late December. LargeCap's weekly forward P/E rose to 16.4 from 16.0, and is up from a five-year low of 13.9 during December. That compares to a six-month high of 16.8 in mid-September and a multi-year high of 18.6 on January 26 (highest since May 2002)—and of course is well below the tech-bubble record high of 25.7 in July 1999. Last week's level remains above the post-Lehman-meltdown P/E of 9.3 in October 2008. MidCap's forward P/E gained 0.3pts to 15.7. That's up from 13.0 during December, which was the lowest reading since November 2011. MidCap's P/E is down from a 15-year high of 19.2 in February 2017 and the record high of 20.6 in January 2002. However, MidCap's P/E has been at or below LargeCap's P/E for most of the time since August 2017—the first time that alignment has prevailed since 2009. SmallCap's P/E rose to 16.8 from 16.4, and is up from a seven-year low of 13.6 during December. That's well below its 51-week high of 20.2 in December 2017 (which wasn't much below the 15-year high of 20.5 in December 2016, when Energy's earnings were depressed). SmallCap's P/E was higher than LargeCap's P/E for a tenth week, after being below for much of December for the first time since 2003.

S&P 500 Sectors Quarterly Earnings Outlook ([link](#)): With two weeks left in the Q1 books, analysts continued to trim their Q1 forecasts. Last week saw the S&P 500's Q1-2019 EPS forecast drop six cents w/w to \$37.49. That's down 6.6% since the end of Q4 and is on pace to be the worst quarter since Q1-2016. The \$37.49 estimate represents a forecasted pro forma earnings decline for Q1-2019 of 1.5%, compared to -1.4% a week earlier and 5.3% at the end of Q4. If it comes to pass, Q1's y/y decline would be its first after 10 straight gains, and down from 16.8% in Q4 and 28.4% in Q3 (which marked the peak of the current earnings cycle). Just four of the 11 sectors are expected to record positive y/y earnings growth in Q1-2019, with none rising at a double-digit percentage rate. That compares to 10 positive during Q4, when seven rose at a double-percentage rate. Five sectors are expected to beat the S&P 500's Q1 growth rate, compared to just four during Q4. Utilities is the only sector expected to post better growth on a q/q basis during Q1. Here are the latest forecasted Q1-2019 earnings growth rates versus their blended Q4-2018 growth rates: Industrials (5.0% in Q1-2019 versus 27.1% in Q4-2018), Health Care (5.0, 13.3), Financials (3.6, 15.6), Real Estate (2.4, 6.2), Utilities (-0.3, -10.4), Consumer Staples (-2.1, 4.6), Consumer Discretionary (-3.3, 17.3), Communication Services (-5.4, 26.3), Information Technology (-6.3, 10.3), Materials (-13.4, 4.0), and Energy (-18.1, 81.5). On an ex-Energy basis, analysts expect S&P 500 earnings to drop 0.6% y/y in Q1, well below the 14.1% y/y gain in Q4.

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