Is Productivity Really Negative?

Income or Widgets, What Really Matters

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Productivity is a Residual

US 2Q PRODUCTIVITY DECREASES 4.6%

US 2Q Unit Labor Costs +10.8%; Consensus +9.5%

Productivity is a residual variable intended to relate aggregate output to the hours worked. As the economy has evolved from manufacturing to services and intellectual property products, aggregate output has become more difficult to guesstimate. Consequently, the residual variable, productivity, has become increasingly questionable. In 1H22, as consumption shifts from goods to services, the productivity data looks particularly dubious. Our preferred measure of total output, gross domestic income, may be having its day in the sun that leads to a change in focus for policymakers, market participants and government statisticians. Income, not output of 'stuff', drives investment in capital, labor and technology, which are the inputs to productivity growth. In 1Q21, real GDI increased 1.8%, nominal increased 10.2% and total factor productivity measured utilizing GDI, increased 2.2%. Using the expenditure method (GDP), productivity fell 2.4% due to the 1.6% decline in GDP primarily attributable to a negative contribution of 3.2% from net exports as supply chains cleared and imports surged. Consider the logic in falling productivity due to a surge in imports as opposed to an increase attributable to surging corporate profits, near record profit margins and 10+% household income growth. Another way to think about this is to compare employment growth from 4Q19 through 1Q22 of -0.7%, to real gross domestic income growth of 6.1%. This looks like surging, not falling, productivity growth to us.

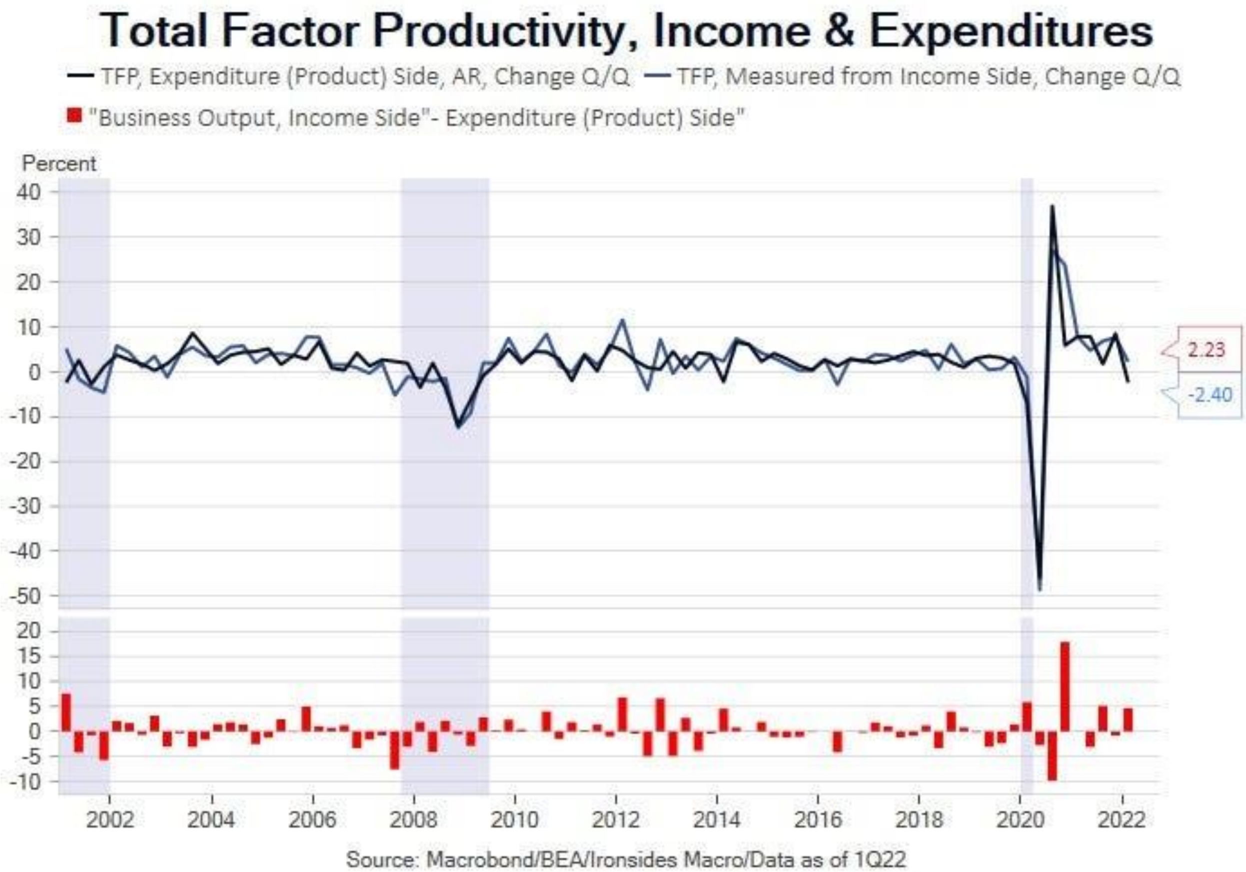

Figure 1: Total factor productivity (TFP) calculated using GDP fell 2.4% in 1Q22 but using gross domestic income it increased 2.2%. We do not yet have the BEA's first estimate of 2Q22 GDI. We suspect it increased at a similar rate to 1Q.

Turning to 2Q, a decline in GDP of 0.9% was primarily due to negative 2% contribution from inventory investment ($81.6 billion from $188.5 billion) as supply chains cleared. Importantly, inventory investment did not decline, it grew more slowly. In 2020, inventory investment as a percent of GDP fell to its lowest level since the post-WWII '49 recession, in late 2021 and 1Q22 it recovered but just as nondurable goods imports surged, consumer demand waned as demand shifted to services. Negative GDP and surging employment led to a jump in unit labor costs and negative productivity measured using the expenditure method. We do not have the BEA's first GDI estimate, however employee compensation increased 10% in 2Q, down from 11.1% in 1Q. It seems likely the corporate sector net operating surplus was at least as strong as Q1's 8.4% increase, given a 10% increase in Russell 3000 earnings, the drag on those earnings from companies with large international sales (not counted in gross domestic income), rising sales per employee, and near record profit margins.

[*The Income- and Expenditure-Side Estimates of U.S. Output Growth*]

Figure 2: Corporate earnings are an input to GDI, unsurprisingly GDI is a better fit to earnings and sales growth. Income growth drives investment and productivity.

We expect that nominal gross domestic income grew roughly 10% in 2Q, consequently, real GDI was likely positive, implying that total factor productivity calculated using the income method was also positive. In 2Q, S&P 500 adjusted capital investment (Capex plus R&D) increased 15.8% quarter-on-quarter annualized (GDP, GDI math) and 18.5% year-on-year. Sales per employee increased 8.26% quarter-on-quarter annualized. Increasing sales per employee, margins near record levels and strong capital investment growth implies strong productivity growth in the corporate sector and an improving productivity outlook.

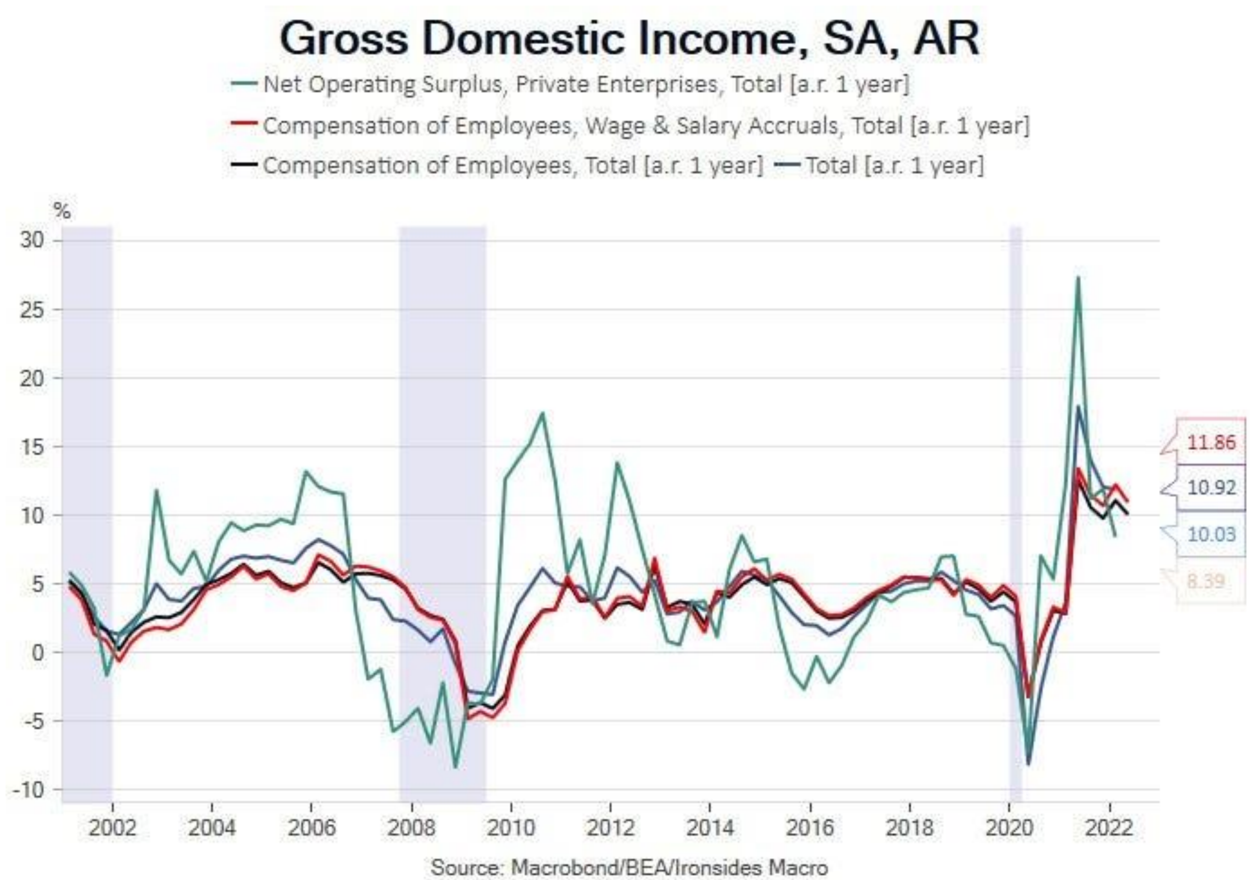

Figure 3: Employee compensation increased 10% in 2Q, down from 11.1% in 1Q. Wages and salaries increased 10.9% vs. 12.2%. Net operating surplus, the broadest measure of corporate income, increased 8.4% in 1Q. Though we don't have the government's estimate for 2Q, Russell 3000 2Q earnings growth is tracking 10.3% with 80% of constituents reporting results. Nominal GDI likely remained near 10%, well above the last two cycle's trend.

In the early days of the pandemic, we reached two important conclusions that differentiated the economic outlook from the financial crisis. First, the pandemic was inflationary, not deflationary. Secondly, productivity in the service sector was surging late in the '10s expansion as businesses increasingly substituted capital for labor as we approached full employment primarily through technology innovation adoption. The pandemic accelerated this process. The leisure & hospitality sector is ground zero for this trend: total employment is 1.2 million less than February 2020, however nonsupervisory average hourly earnings are 8.4%, up from 4.5% pre-pandemic and using the S&P restaurant industry index as a proxy, margins are unchanged, and sales are 20% higher. Wages are double the pre-pandemic rate because productivity has surged. The pandemic was a positive productivity shock.

Figure 4: Sales per employees and S&P 500 profit margins imply 10% nominal growth was not accompanied by negative real growth and contracting productivity.

In the ‘20s, we expect a very strong capex cycle, though the ‘Inflation Reduction Act’ and the minimum tax rate on reported profits is a setback for debt financed structures investment that is most sensitive to the tax rate. The pandemic was also the Great Reallocation, it increased fluidity within and across sectors that is likely to boost labor productivity over time and it was a perfect storm for technology innovation adoption. In other words, all three major drivers of productivity, capital, labor and technology innovation, will be contributing to what could be another golden era of productivity growth. Income matters, the Bureau of Economic Analysis should focus on it just as investors do. If you are using GDP as an input to a macro corporate earnings model, you are doing it wrong.

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