

The U.S. Economy's Remarkable Resilience to Higher Interest Rates

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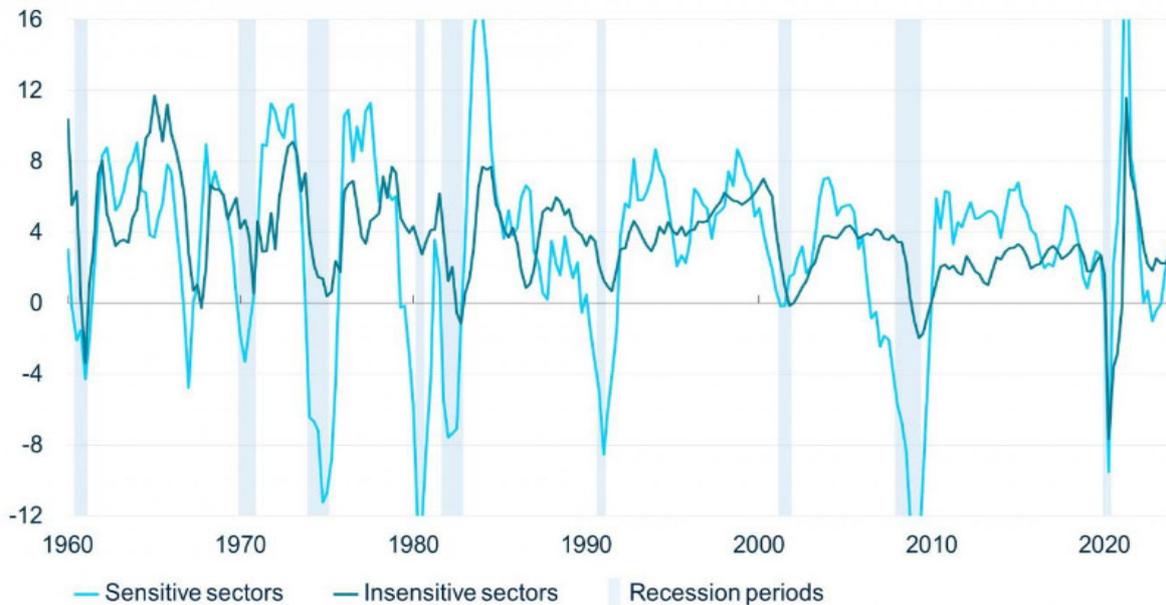
Despite the most aggressive tightening cycle in decades and a Fed funds rate that by many measures remains restrictive, the U.S. economy continues to be remarkably resilient. Given the magnitude of interest rate increases and the persistent inversion of the U.S. Treasury yield curve - a usually reliable indicator - many economic models would have predicted a recession in 2023. But contrary to both consensus expectations and historical precedent, U.S. economic growth actually accelerated last year. This resilience caused us to question whether the historical relationship between economic growth and interest rates had somehow changed and, if so, to what extent. Our analysis found that features related to the pandemic - such as extraordinary demand from stimulus and the healing of supply chains - may have reduced the economy's sensitivity to interest rates in both 2022 and 2023.

The question now becomes whether the economy's reduced sensitivity to interest rates will begin to fade, or if 2023's strong growth is repeatable. We believe the answer lies somewhere in between, with the historical relationship between higher rates and the interest-rate sensitive sectors of the U.S. economy beginning to reassert itself. However, due to the unique nature of the recovery, the economy is likely to remain fairly resilient even in a higher-for-longer interest rate environment.

As part of the research we conducted last year into the U.S. economy's evolving sensitivity to interest rates, we found unique features of the pandemic that may have lessened the impact of higher interest rates. Not only was there a positive supply shock as supply-chain healed, but demand was well above pre-pandemic trends due to extraordinary fiscal stimulus and a shift in consumption toward goods from services.

As a result, certain sectors of the economy that had historically been sensitive to interest rates did not respond to higher interest rates as expected. Whereas, in prior episodes of Fed hiking, these interest-rate sensitive sectors have contracted by as much as 10-12%, some contracted by only 1% over this period (Fig. 1).

FIGURE 1: Interest Rate Sensitive Sectors Have Not Contracted as Sharply as Prior Cycles (U.S. real GDP growth; 4-quarter, %)



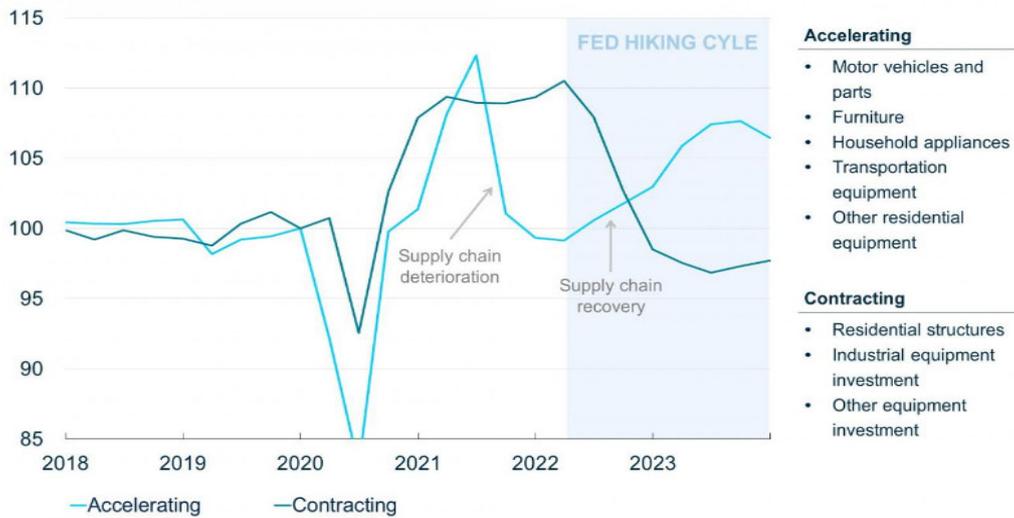
Source: PGIM Fixed Income as of December 2023

We then drilled down into each of these interest-rate sensitive sectors to determine which ones were responding to interest rate rises and those that were not. The housing sector was among those responding as expected. We noted a large drop in residential investment almost immediately as interest rates rose. As expected, we also saw a decline in industrial equipment investment. However, there were several traditionally interest-rate sensitive sectors that did not contract, such as autos, trucks, and furniture.

An Unusual Recovery

We further found that there was an interesting evolution of the output or consumption of these sectors through the pandemic. These sectors registered a steep contraction around the beginning of 2021 when the supply-chain crisis engulfed the global economy. However, as supply-chains healed the output of these sectors accelerated right as the Fed started to raise interest rates. This imprint of the evolution of the shock and recovery to supply chains struck us as a notable factor increasing the economy's resilience to higher interest rates (Fig 2).

FIGURE 2: The Output of Certain Sectors Carry the Imprint of the Supply Chain Crisis (Index, 19Q4=100)



Source: PGIM Fixed Income as of December 2023

So, it's not to say that the U.S. economy isn't sensitive to interest rates. It's that there were unique features of the pandemic that may have lessened the interest-rate sensitivity of the economy just as the Fed was hiking rates. Said another way, a varied adjustment process across certain sectors lowered the broader economy's sensitivity to interest rates.

Staggered Adjustments

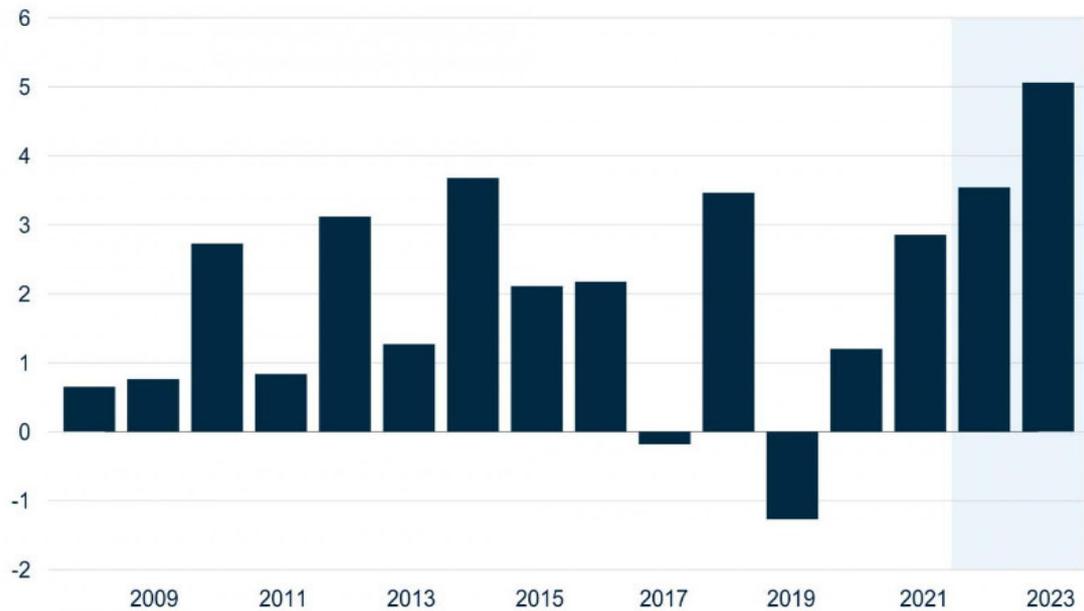
One of the implications of some interest-rate sensitive sectors responding to higher interest rates while others did not is a staggered adjustment process to the Fed's hiking cycle. This rolling process essentially meant that the economy had more support at the aggregate level. Because not all of these interest-rate sensitive sectors are contracting nor moving in the same direction, the economy has remained somewhat more resilient.

Add in the buoying effect from strong household balance sheets and a surge in immigration and the sources of U.S. economic resilience become clear (Fig 3 & Fig 4).

FIGURE 3: Strong Consumer Balance Sheets ... (U.S. consumer balance sheets; % of DPI)



Source: Macrobond, Federal Reserve, BLS, PGIM Fixed Income as of March 22, 2024. Note: DPI stands for Disposable Personal Income.

FIGURE 4: ... and a Surge in Immigration Also Helped the U.S. Economy (U.S. foreign born population growth; %)

Source: Macrobond, Federal Reserve, BLS, PGIM Fixed Income as of March 22, 2024.

Looking forward to the rest of 2024, does economy's reduced sensitivity to interest rates begin to fade or have we experienced a paradigm shift? We believe the answer lies somewhere in between. On one hand, we cannot deny that the usual relationships still work in the sense that when interest rates rise, some segments of the economy are bound to experience stress.

At the same time, we believe certain factors, such as the enduring element of fiscal stimulus, may continue to reduce the economy's sensitivity to interest rates going forward. This view continues to inform our U.S. economic outlook, whereby still-tight monetary policy slows momentum to a below-trend pace of real GDP growth, but that the economy remains resilient overall.

The Fat Tails on Each Side of the Growth Distribution

That said, the macro backdrop remains anything but predictable, and to account for this uncertainty, we consider growth scenarios along the full range of the distribution (Fig 5).

FIGURE 5: The Range of Potential Growth Scenarios

| | | Growth (1-year horizon) | | |
|---|------------------------|----------------------------|----------------------------------|----------------------|
| | | Low (<1%) | Moderate (1-2.5%) | High (>2.5%) |
| Inflation (Core PCE, 1-year horizon) | High (>2.5%) | | Weakflation 30% | Nominal GDP boom 15% |
| | Moderate (1.5-2.5%) | | Moderation (Soft Landing) 25% | |
| | Low (<1.5%) | Recession 20% | | Roaring 2020s 10% |

Source: PGIM Fixed Income as of March 2024. Note: Moderation represents a convergence towards trend growth and inflation hits 2% target. Cells are left blank in the matrix if the market outcome is not distinct from that of an adjacent cell. The gold rectangle shows the base case scenario. High, moderate, and low are delineated by 1 standard deviation around trend.

Left-tail risks include a labor market that runs out of steam and a monetary policy-induced recession (20%). Right-tail risks include a still-solid labor market supporting consumer demand and productivity growth allowing U.S. growth to remain above trend, leading to either a nominal GDP boom (15%) or the Roaring 2020s (10%).

For now, we continue to see weakflation as our base case (30%), followed by a 25% chance of a soft landing. Both of these scenarios envision strong consumption, along with other fiscal impulses—such as securing supply chains in a more de-globalized world, potential increase in defense spending and financing the energy transition - leading to positive economic growth and interest rates that may remain higher for longer than what most market participants were expecting just a few months ago.

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Source(s) of data (unless otherwise noted): PGIM Fixed Income, as of March 25, 2024.

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