KENNESAW STATE UNIVERSITY
COLES COLLEGE OF BUSINESS
Bagwell Center for the Study of Markets and Economic Opportunity

Commentary

Title:

"Behind the Disconnect between Consumer Sentiment and the Macroeconomy"

Author(s):
Filippo OCchino

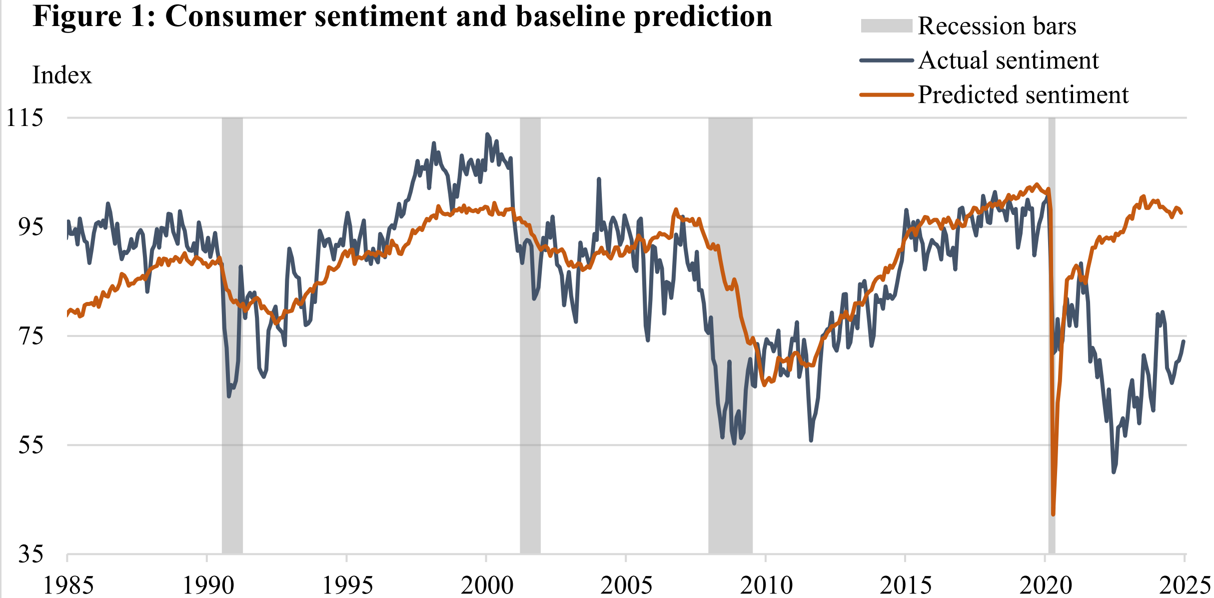
January 2025

Consumer confidence and sentiment are linked to unemployment, inflation, and aggregate economic conditions. Consumers tend to be confident and optimistic when unemployment and inflation are low. Since mid-2021, however, consumers have been pessimistic even though unemployment has been historically low and inflation has declined. In this commentary, I show that consumers have been pessimistic because of relatively low long-term interest rates and high past inflation rates.

Consumer sentiment and the macroeconomy

The most watched consumer sentiment and optimism measure is the University of Michigan's Consumer Sentiment Index.[1] This measure is tightly connected with unemployment and inflation. A *baseline* model that uses only the levels of unemployment and inflation predicts well the highs and lows of consumer sentiment before the COVID-19 recession.[2] Figure 1 plots the actual and predicted levels of consumer sentiment. The vertical bars indicate recessions as identified by the NBER. The figure shows that the level of consumer sentiment predicted by the model is close to the actual level before the COVID-19 recession.

Figure 1: Consumer sentiment and baseline prediction



Sources: University of Michigan's Surveys of Consumers and U.S. Bureau of Labor Statistics; retrieved from FRED, Federal Reserve Bank of St. Louis; author's calculations.
Note: Predicted sentiment is computed by estimating a linear regression of consumer sentiment on a constant, the unemployment rate, and the year-over-year CPI inflation rate from Jan 1985 - Dec 2019.

Since mid-2021, however, consumer sentiment has been exceptionally low relative to what unemployment and inflation would predict. Figure 1 shows that consumer sentiment has been

---

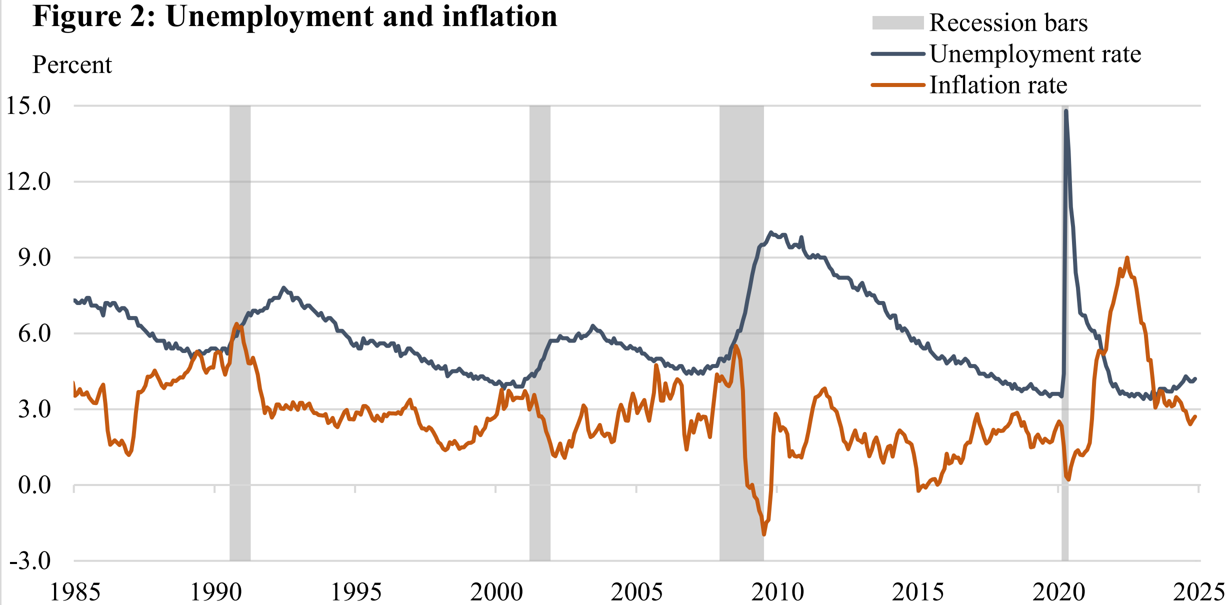
[1] The Conference Board's Consumer Confidence Index is another standard measure.

[2] The model is a linear regression of consumer sentiment on a constant, the unemployment rate, and the year-over-year CPI inflation rate, estimated from January 1985 to December 2019. I began the estimation in 1985 because the pre-1985 data had an outsize effect on the estimates and results. The pre-1985 period was characterized by exceptionally high levels of unemployment and inflation and needs a different explanatory model.

hovering around historically low levels while the baseline model predicts it should be high based on unemployment and inflation.

The model predicts that consumers should be upbeat because the unemployment rate has been historically low, below 4.5 percent. The inflation rate rose and reached 9 percent in 2022 but has declined and been below 4 percent since mid-2023.

Figure 2: Unemployment and inflation



Sources: U.S. Bureau of Labor Statistics; retrieved from FRED, Federal Reserve Bank of St. Louis.
Note: The inflation rate is the year-over-year CPI inflation rate.

More generally, economic and financial developments have been positive in recent years, with solid GDP and wage growth and strong average financial performance. A model that includes the effects of unemployment, inflation, consumption growth, and stock market returns also suggests that consumers should have been more upbeat.

Behind the disconnect

Many economists have studied why consumer sentiment has been disconnected from aggregate economic conditions in recent years. An NBER working paper[3] argues that the recent consumer pessimism has been due to high interest rates, borrowing costs, and housing costs. Brookings' research[4] explores several factors, including media bias towards bad news, political partisanship, non-economic concerns, and population aging. Most importantly, the study finds that consumers have been pessimistic because of the elevated aggregate price level, which, in turn, has been caused by high inflation rates in 2021-2023. In other words, even though inflation has declined, past inflation has permanently raised the aggregate price level, hurting consumer

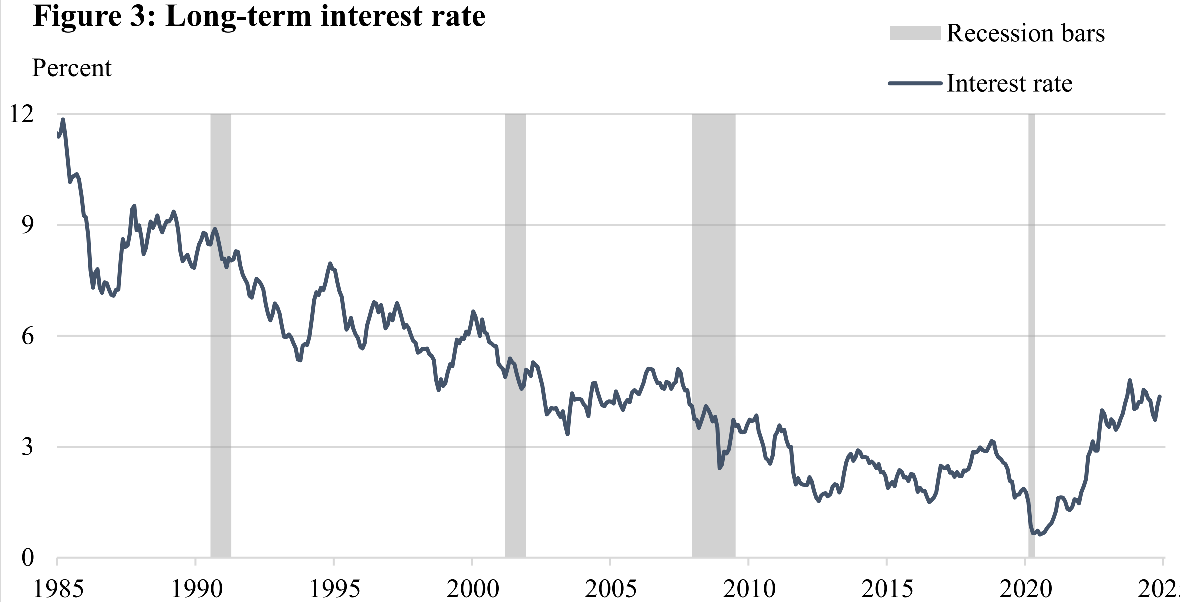
---

[3] Marijn A. Bolhuis, Judd N. L. Cramer, Karl Oskar Schulz, and Lawrence H. Summers, "The Cost of Money is Part of the Cost of Living: New Evidence on the Consumer Sentiment Anomaly," NBER Working Paper No. 32163, February 2024 (https://www.nber.org/papers/w32163).
[4] Ryan Cummings, Ben Harris, and Neale Mahoney, "The paradox between the macroeconomy and household sentiment," Brooking's Research, October 24, 2024 (https://www.brookings.edu/articles/the-paradox-between-the-macroeconomy-and-household-sentiment).

sentiment. A TD Economic commentary[5] summarizes how high past inflation rates, high current borrowing and homeownership costs, and other socio-cultural factors may have caused recent consumer pessimism.

I explored some of these factors and found that two can explain all the apparent disconnect: long-term interest rates and past inflation rates. Once the 10-year interest rate is added to the model, the model can predict most of the consumer pessimism in 2021. However, the reason why the interest rate helps predict consumer sentiment is not the one suggested by the NBER working paper referenced above. In the paper, high interest rates and borrowing costs lower consumer sentiment. In my model, the effect is the opposite: High interest rates and rates of return raise consumer sentiment. Hence, the low interest rate in 2021 depressed consumer sentiment.

Figure 3: Long-term interest rate



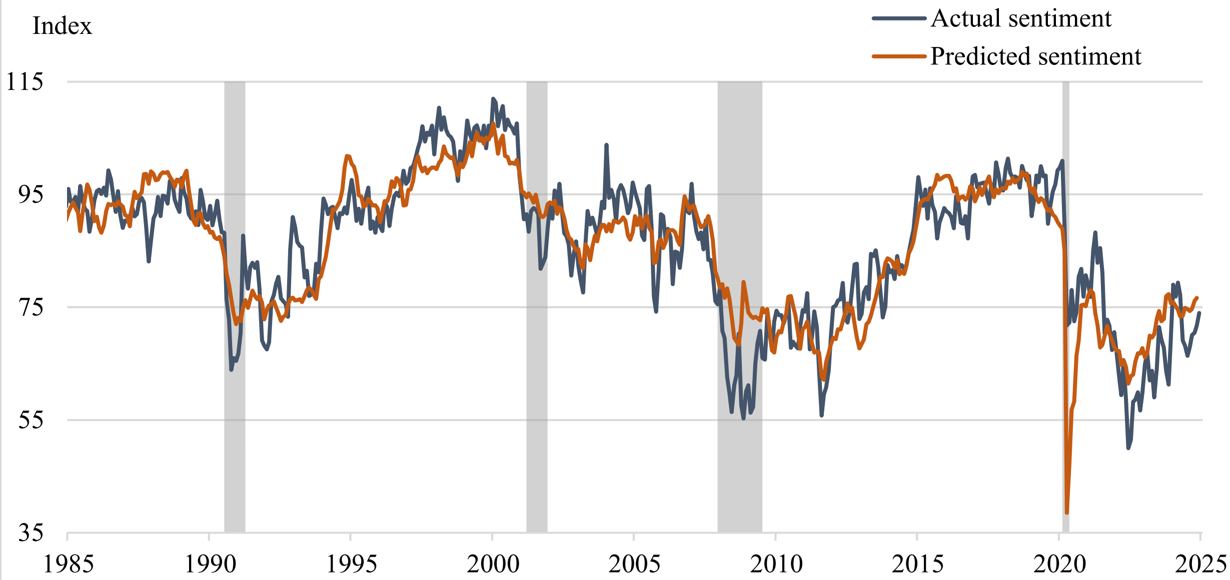
Sources: Board of Governors of the Federal Reserve System; retrieved from FRED, Federal Reserve Bank of St. Louis.
Note: The interest rate is the 10-year Treasury yield.

Once the inflation rates in the past four years are added, the model can predict why consumers have been pessimistic since mid-2021. High inflation rates raise the aggregate price level and depress consumer sentiment for many years.

Figure 4 compares the actual level of consumer sentiment with the one predicted by the *advanced* model that uses the unemployment rate, the interest rate, and the current and past inflation rates. The figure shows that the predicted level is very close to the actual one both before and after the COVID-19 recession. In other words, once the effects of the interest rate and past inflation rates are considered, the advanced model can account for the recent consumer pessimism.

[5] Shernette McLeod, "Why So Glum? The Disconnect Between Consumer Sentiment and Economic Data," TD Economics, April 2, 2024 (https://economics.td.com/us-disconnect-between-consumer-economic-data).

Figure 4: Consumer sentiment and advanced prediction



Sources: University of Michigan's Surveys of Consumers, U.S. Bureau of Labor Statistics, and Board of Governors of the Federal Reserve System; retrieved from FRED, Federal Reserve Bank of St. Louis; author's calculations.
Note: Predicted sentiment is computed by estimating a linear regression of consumer sentiment on a constant, the unemployment rate, the 10-year Treasury yield, and the current and past four years of the year-over-year CPI inflation rate from Jan 1985 - Dec 2019.

This analysis is subject to one *caveat*. The advanced model performs well before and after COVID-19, even though it is estimated using only data before COVID-19. However, when I selected the model variables and the estimation period, I knew the data after COVID-19 and aimed at predicting them. This procedure may lead to overfitting, a model that predicts the past and present well but poorly the future. It remains to be seen whether the advanced model will predict consumer sentiment well in the future.

In sum, an advanced model that includes the unemployment rate, the long-term interest rate, and current and past inflation rates predicts consumer sentiment before and after COVID-19. It accounts for the consumer pessimism since mid-2021. Even though unemployment has been low and inflation has declined, consumers have been downbeat because of the low long-term interest rate in 2021 and the high inflation rates in 2021-2023. Once these effects are considered, there is no disconnect between consumer sentiment and the macroeconomy.