ECONOMIC FINDING • MARCH 2023

Sentiment, Productivity, and Economic Growth

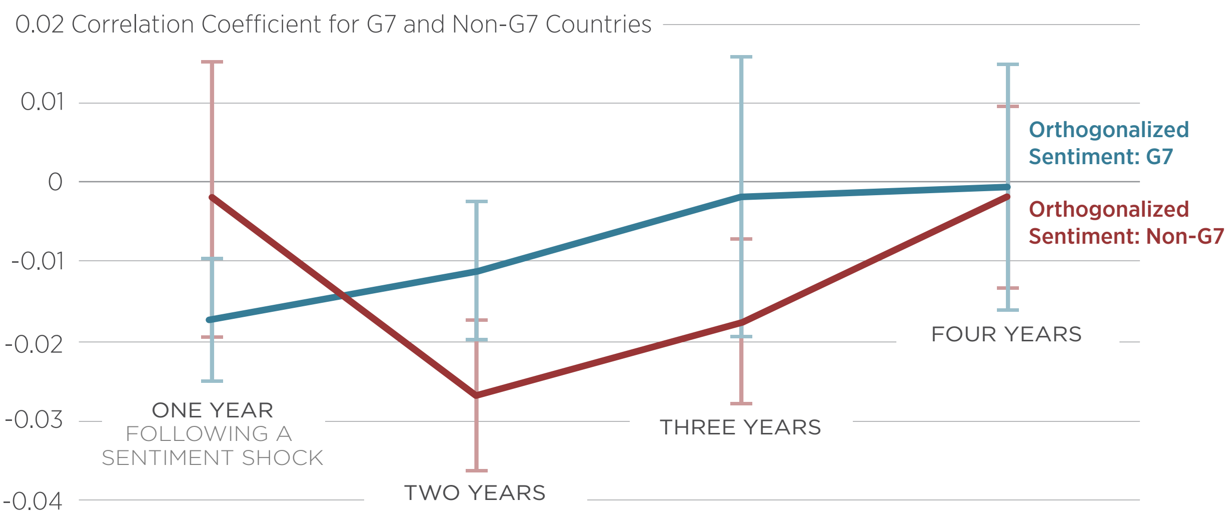
Based on BFI Working Paper 2023-40, "Sentiment, Productivity, and Economic Growth," by George M. Constantinides, Chicago Booth; Maurizio Montone, University of Utrecht; Valerio Potì, University College Dublin (UCD), Smurfit; and Stella Spilioti, Athens University of Economics and Business

In countries with less efficient capital markets, increases in consumer sentiment lead to increased economic growth and total factor productivity, while in countries with more efficient capital markets, increases in sentiment increase economic activity only temporarily and without affecting productivity.

A growing body of evidence shows that sentiment and economic growth tend to rise and fall together. However, the channel of this correlation and potential causality are unresolved. Is sentiment related to fundamentals? Is sentiment a signal of future productivity but does not cause it? Does sentiment exert an immediate and lasting effect on economic growth through a self-fulfilling feedback loop? Given the many factors that impact economic activity, isolating the effects of consumer sentiment poses a challenge.

The authors propose a novel way to address these questions by analyzing data across sixteen countries with varying degrees of efficiency in their capital markets over the period 1975 to 2019. They hypothesize that

Figure 1 • Relationship between Sentiment and Stock Returns in the Years Following a Sentiment Shock



Note: This graph plots the average country-level correlation between sentiment (orthogonalized to macroeconomic indicators) and stock returns at one-, two-, three-, and four-year intervals following a sentiment shock. The correlation coefficient is plotted separately for G7 and the set of non-G7 countries studied here. As you can see, in G7 countries the effect of orthogonalized sentiment on stock returns is insignificant two and three years ahead and becomes effectively zero four years ahead. For non-G7 countries, the coefficient is negative and significant for two- and three-year-ahead stock returns and becomes zero in year four. These results support the authors' conjecture that advanced/larger economies exhibit more efficient financial markets. Mispricing correction is fast in G7 countries, as it takes place within one year only, and small, which indicates the presence of lower initial mispricing. Conversely, mispricing correction is slow in non-G7 countries, as it only takes place two and three years ahead, and larger, which attests to the presence of higher mispricing.

countries with less efficient capital markets respond more strongly to sentiment shocks because investors are unable to distinguish between a change in fundamentals and a change in sentiment unsupported by fundamentals, a prediction that they exploit in their research design. The authors apply four different measures of efficiency of capital markets: inclusion in the G7 group, inclusion in the Eurozone, stock turnover over GDP, and per capita GDP. The authors study how economies of varying efficiency of capital markets respond to changing sentiment, and find the following:

- In countries with efficient capital markets, positive sentiment shocks increase economic activity only temporarily and without affecting total factor productivity. Sentiment shocks predict modest increases in consumption, employment, and income for two years.
- In countries with less efficient capital markets, sentiment shocks predict more prolonged economic growth and a corresponding increase in total factor productivity. Sentiment shocks predict large increases in consumption, employment, and income for four years.
- These effects are driven largely by financial markets: with positive sentiment driving up stock prices, investors are quick to take advantage of the lowered cost of capital. The authors observe increased capital investment and their associated rate of return following sentiment shocks.
- Countries with efficient capital markets exhibit a faster mispricing correction, lending support to the authors' hypothesis that such markets are more efficient. As a result, sentiment is a negative predictor of returns.
- By contrast, countries with less efficient capital markets exhibit a slower mispricing correction because investors misinterpret consumer optimism as a signal about better investment opportunities. As a result, sentiment is a positive predictor of returns.

This paper offers new evidence on how sentiment impacts the economy. At least in countries with less efficient capital markets, sentiment appears to be a driver of economic booms. By contrast, sentiment shocks in countries with efficient capital markets leads to only short-term fluctuations that are unrelated to productivity. More broadly, this paper demonstrates how the financial sector influences economic growth.

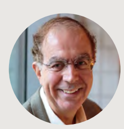
READ THE WORKING PAPER

NO. 2023-40 · MARCH 2023

Sentiment, Productivity, and Economic Growth

bfi.uchicago.edu/working-paper/2023-40

ABOUT OUR SCHOLAR



George M. Constantinides

Leo Melamed Professor of Finance, Chicago Booth

chicagobooth.edu/faculty/directory/c/george-m-constantinides