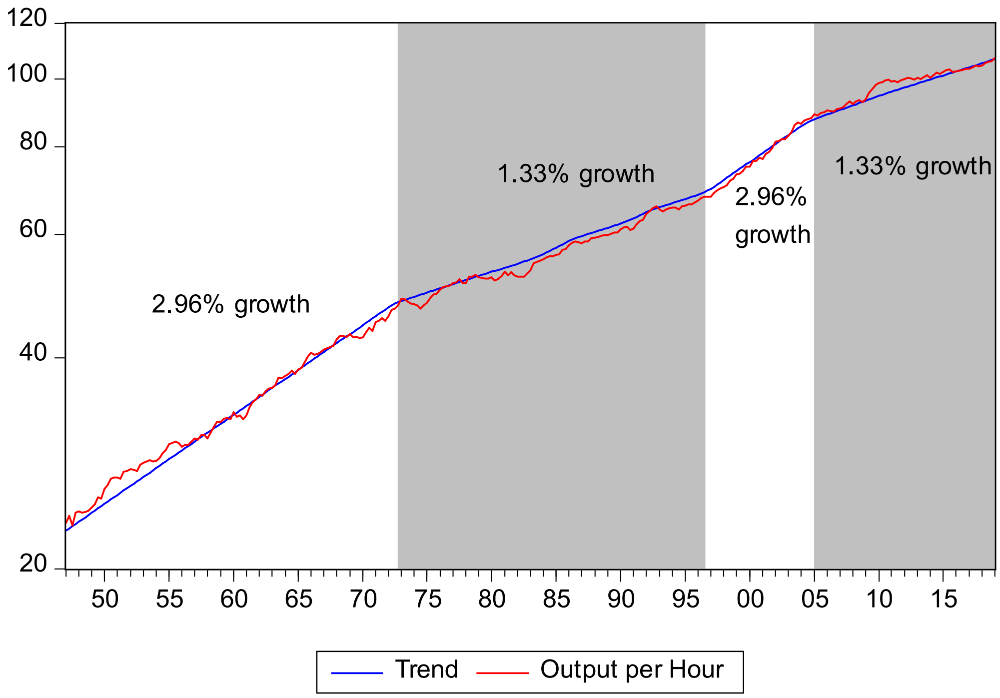
Trend Productivity Growth Update*

Productivity Growth Trends



Note: Output per hour index set to 100 for 2012. The scale is logarithmic.

Labor productivity in the U.S. over the post-war period appears to have alternated between "regimes" of high and low trend growth. Our model (see Kahn and Rich, 2007) estimates regime-specific growth rates and assigns probabilities to each regime at every date, and is updated with every productivity data release.

Key Points

- Using data through 2019Q1, the model finds that with probability 0.93 productivity remains in a low-growth (1.33% annual rate) regime (Chart 1). This probability, however, is lower than the 0.95-0.98 values that prevailed for most of the past few years, and in fact is the lowest since 2011. Two of the three model inputs (productivity and real labor compensation) showed substantially stronger growth in the latest quarter, and all three showed a pick up in the pace of year-over-year growth.
- The preliminary data release reported productivity growth in 2019Q1 in the nonfarm business sector was 3.6% (annual rate), the highest rate in more than four years. The four-quarter change was 2.4%, the highest year-over-year reading since 2015Q1. The near-term forecast profile, however, is little changed, with a small chance of a switch back to higher growth and thus a predicted 5-year trend of 1.9% (Chart 2).

- This data release continues to support the model's conclusion that productivity has been in a low growth regime since late 2004/early 2005, and that the brief rebound of growth from 2007-10 and exceptional weakness since 2010 were cyclical and transitory in nature (Chart 3). Nonetheless, the recent strength in the indicators suggests a bit more uncertainty on the positive side going forward

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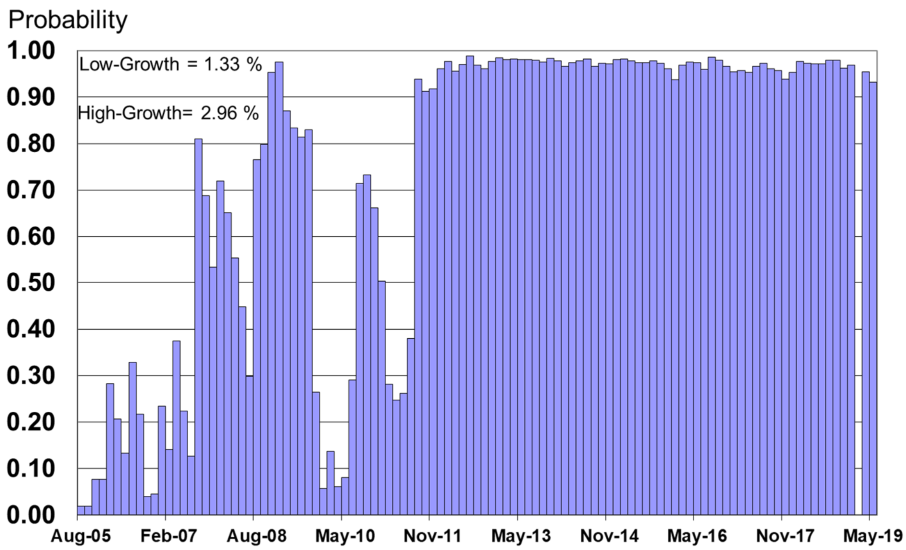
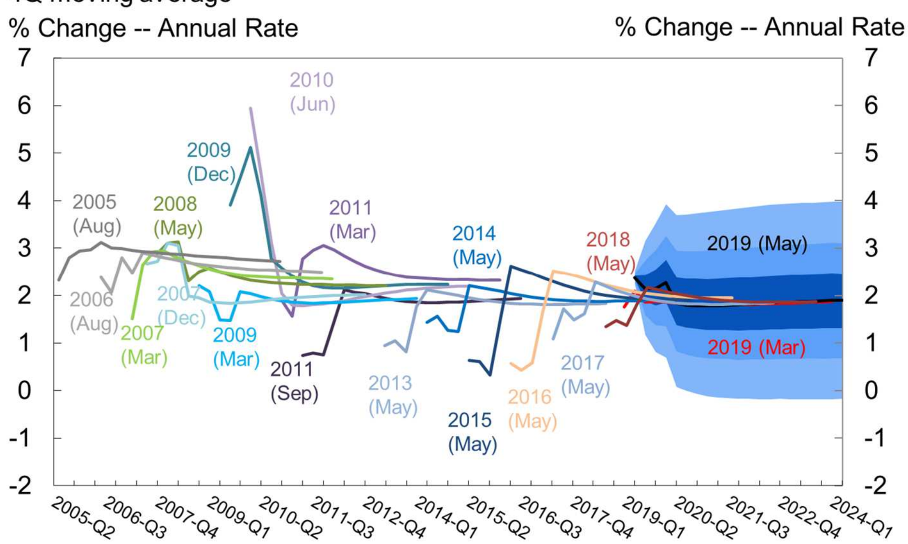
Low-Growth Regime Probabilities (Chart 1)

Real-Time Assessments for the Most Recent Quarter

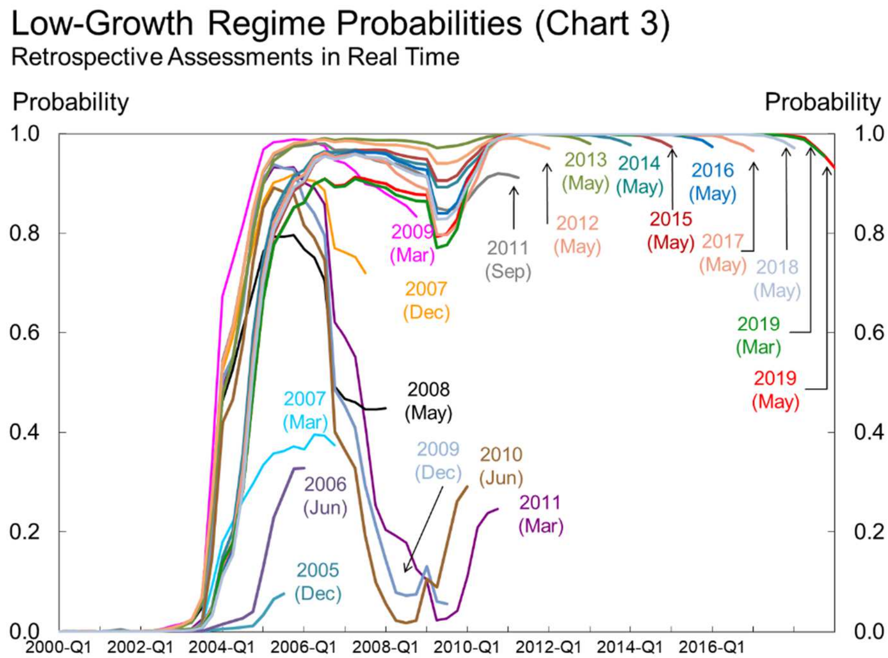


Five-Year Forecasts of Productivity Growth (Chart 2)

4Q moving average



Note: The shading represents the 25, 50, and 75% probability bands around the May 2019 forecast.



Reference

Kahn, J. and R. Rich, "Tracking the New Economy: Using Growth Theory to Detect Changes in Trend Productivity," *Journal of Monetary Economics* 54(6), September 2007, 1670-1701.

*The views, model results, and analysis presented are solely those of the individual contributors and do not necessarily reflect the position of the Federal Reserve Bank of Cleveland or the Federal Reserve System.