

# **Growth and and Inflation**

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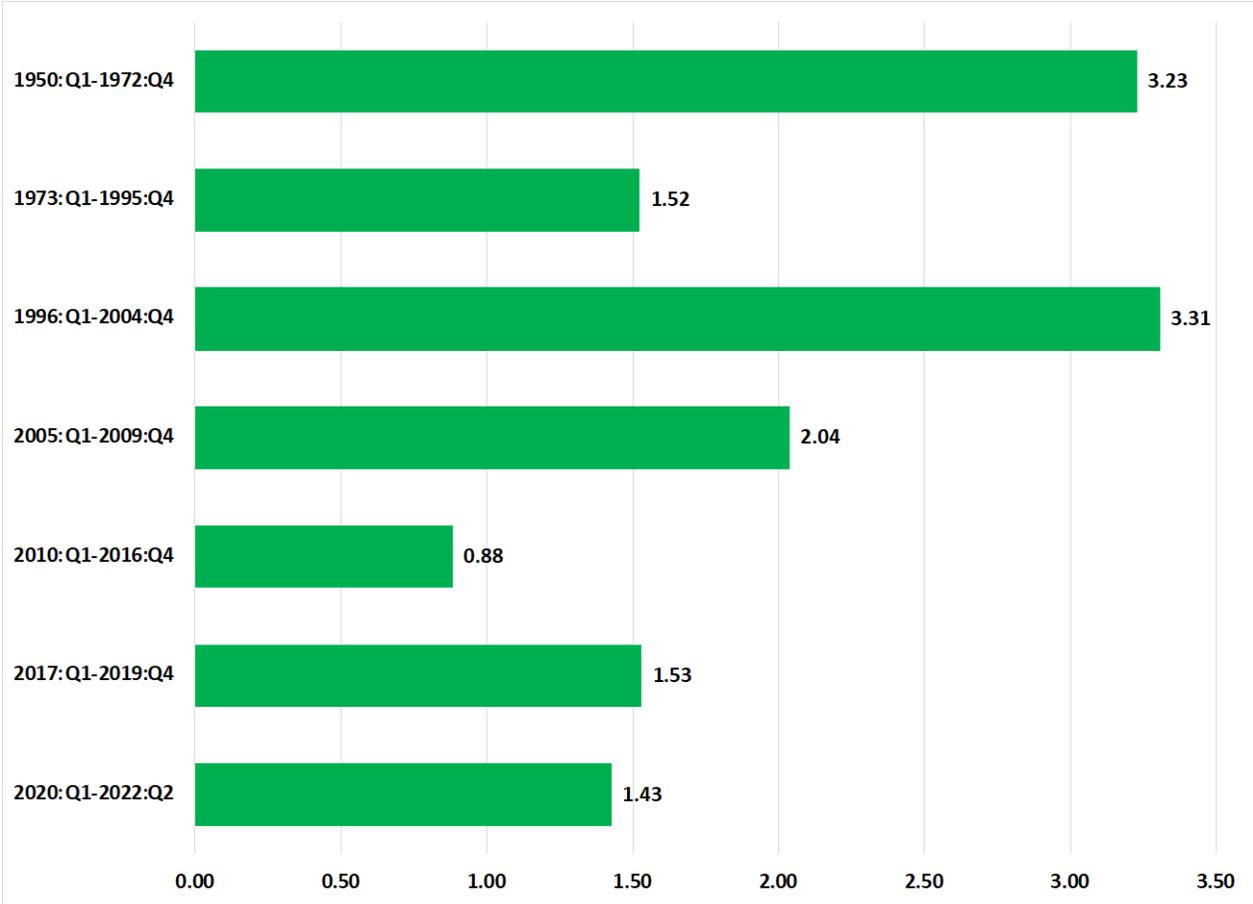
**Academic Advisory Council, Chicago Fed**

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# Growth and Inflation

- **Key to both topics is productivity growth**
- **Why inflation?**
  - **Because what matters for inflation is not wage growth but growth in unit labor costs**
- **Growth in potential output equals**
  - **Growth in labor hours plus productivity growth**
  - **CBO assumes H growth of 0.4, LP growth 1.4**
    - **Total 1.8, marked down from 1.9, before that 2.1**
  - **That's for total economy. Let's look first at business sector, CBO implies  $1.4+0.3 = 1.7$**

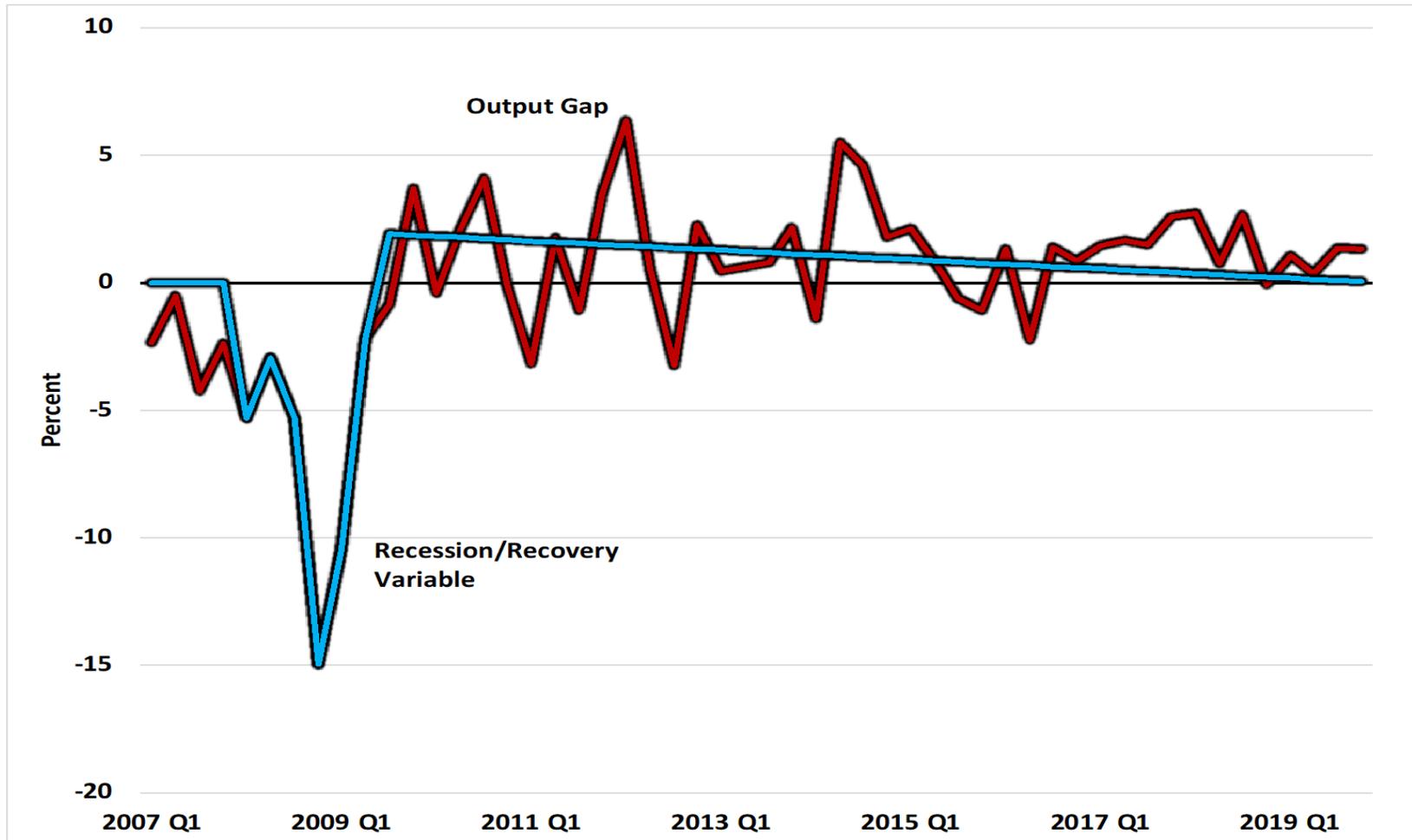
# Business Sector Productivity Growth, Seven Intervals, 1950-2022



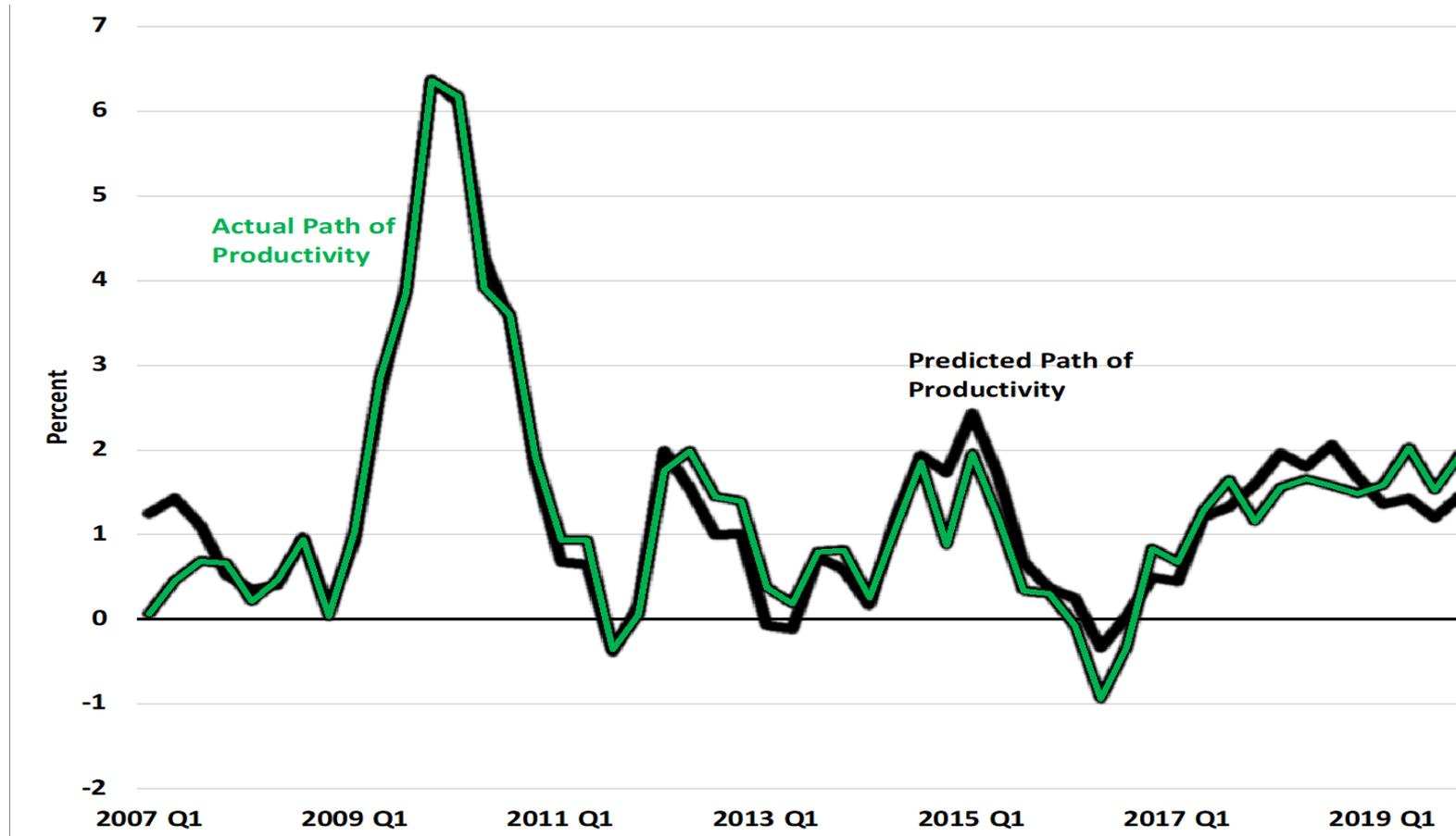
# **New Paper, Regression Study of Changes in Hours Relative to Trend**

- **Labor productivity “growth gap” is actual minus trend growth**
- **Identically equal to output growth gap minus hours growth gap**
- **Hours growth gap is regressed on output growth gap, current and lags**
- **Slow adjustment of hours means productivity growth overshoots, positive 0.6 response followed by negative**
- **Key insight, extra hours response in 2009, panicked firms => “excess layoffs” then recovery rehiring**

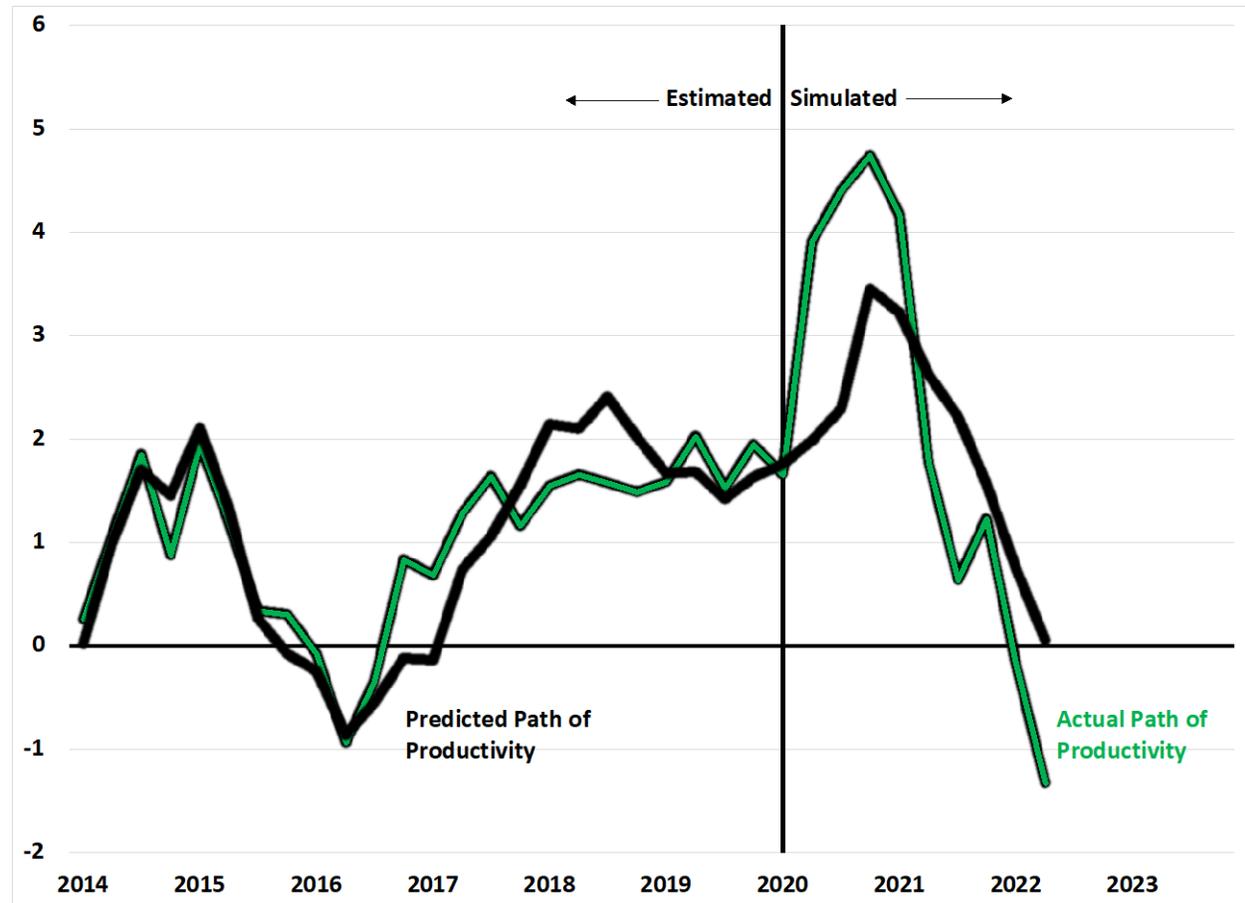
# 2008-09 Recession Effect and 2009-2019 Recovery Effect (Blue)



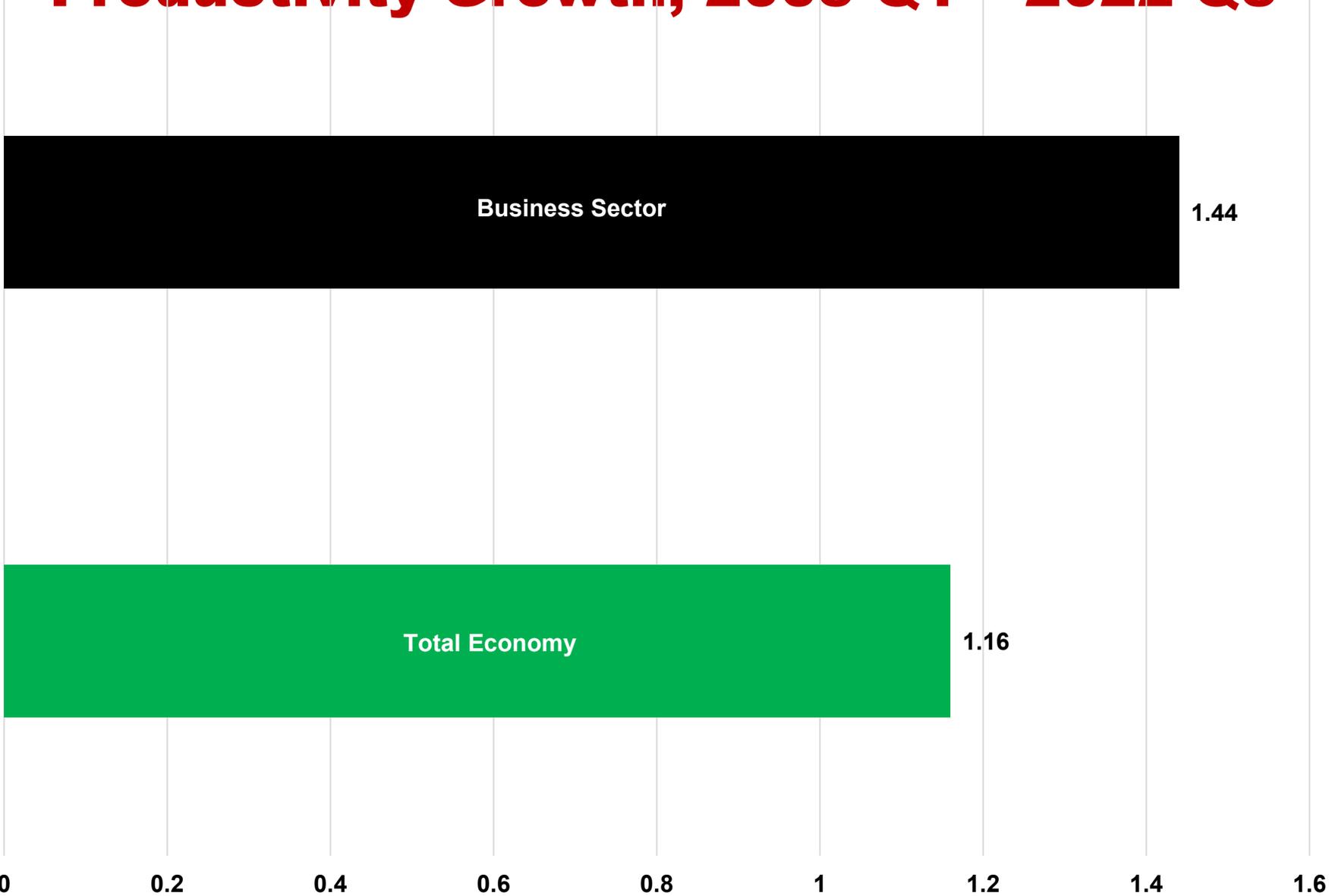
# Productivity Growth 2007-19, Actual (Green) vs. Predicted (Black)



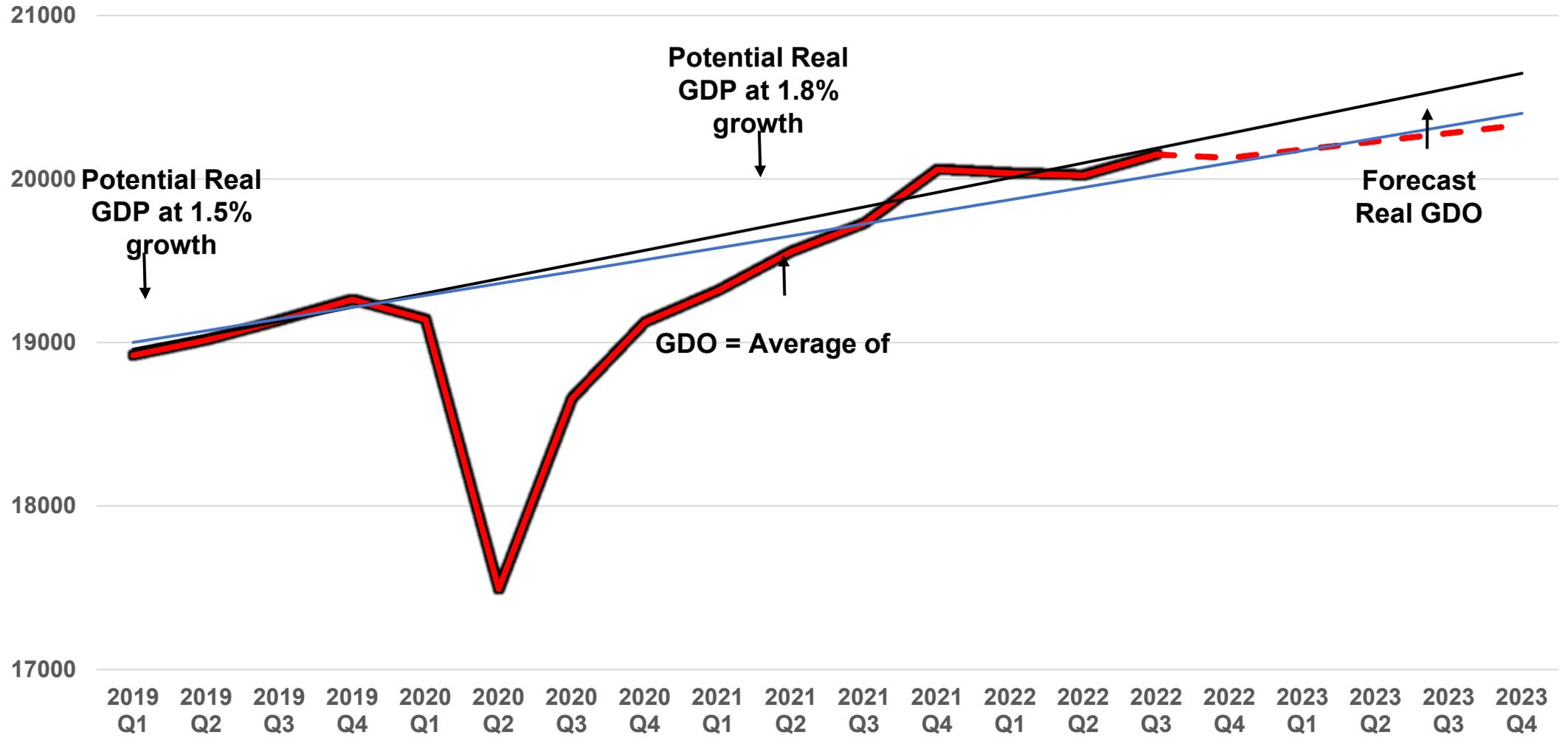
# Actual Productivity Growth vs. Fitted (2007-19) and Simulated (2020-22)



# Productivity Growth, 2005 Q1 – 2022 Q3



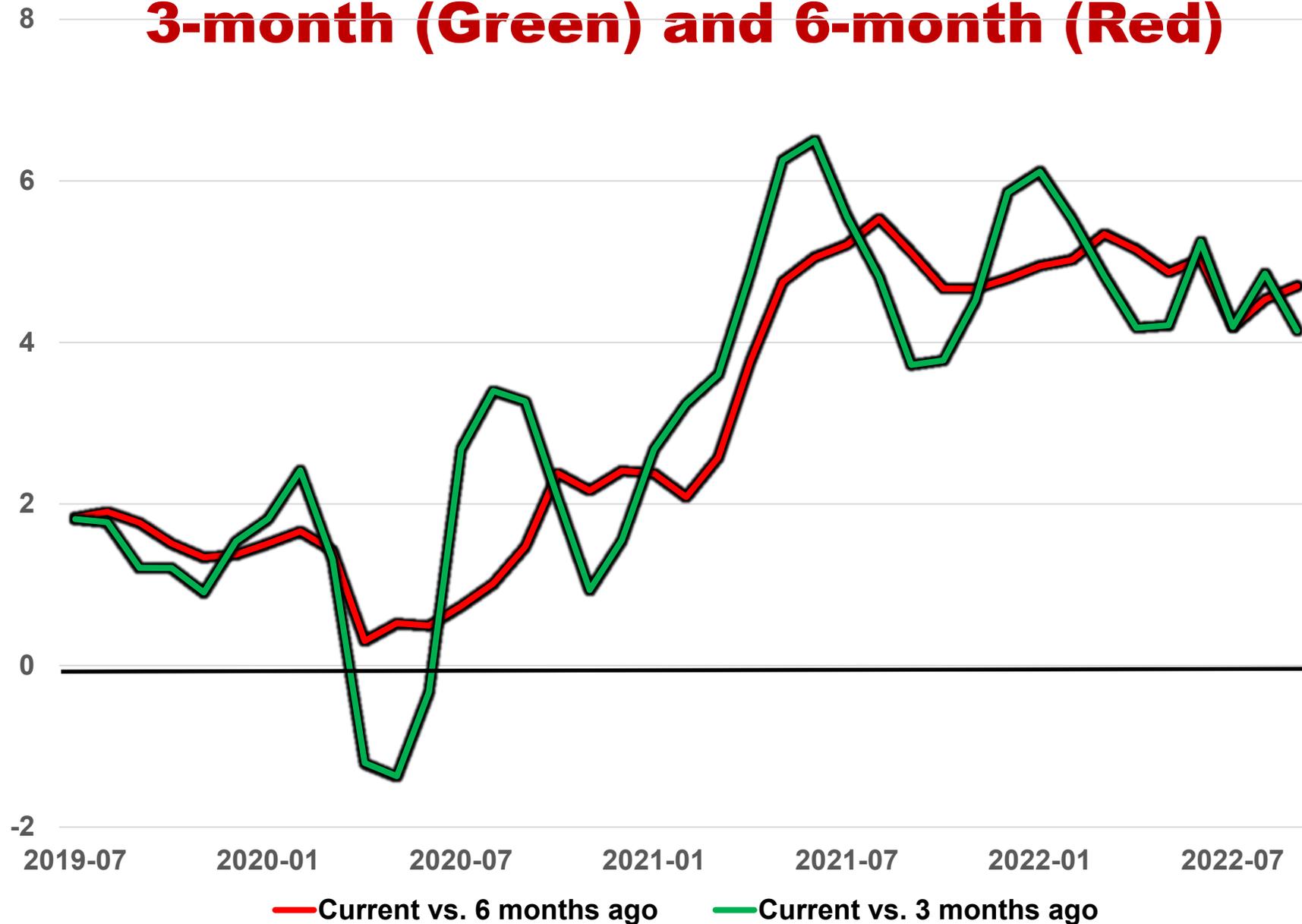
# Actual and Projected GDO versus Two Growth Paths for Potential Output



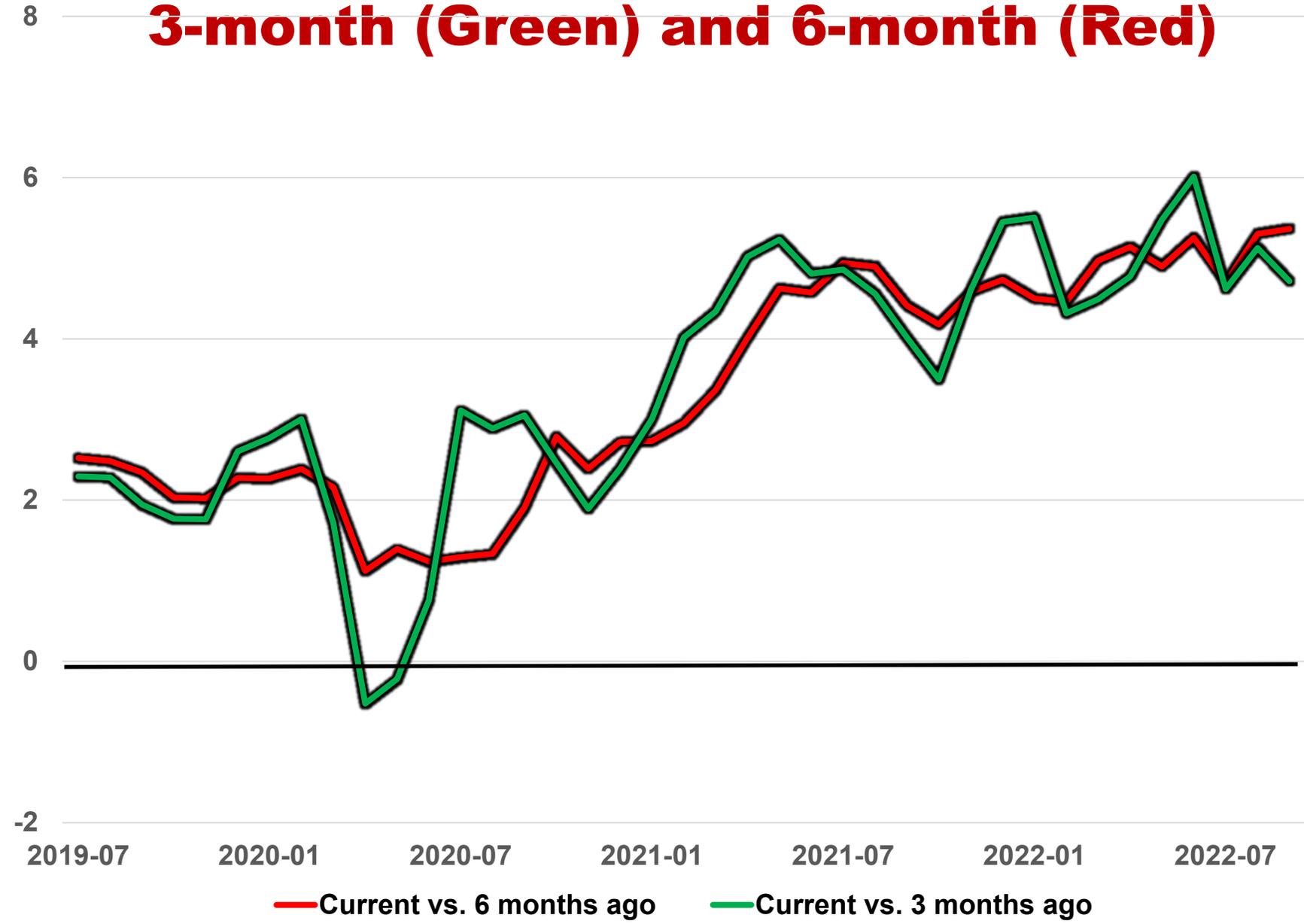
# **When Will Inflation Turn Around and Begin to Decline, and to What Rate?**

- **The ingredients for an answer come from examining 3-month and 6-month annualized inflation rates for core PCE deflator and PCE services**
- **12-month changes are old news. Here are 3-month and 6-month changes**
- **Summary:**
  - **Core inflation has leveled off at 4 to 5 percent**
  - **Services inflation has leveled off at 4.5 to 5.5**
  - **Steady inflation consistent with output gap near 0**

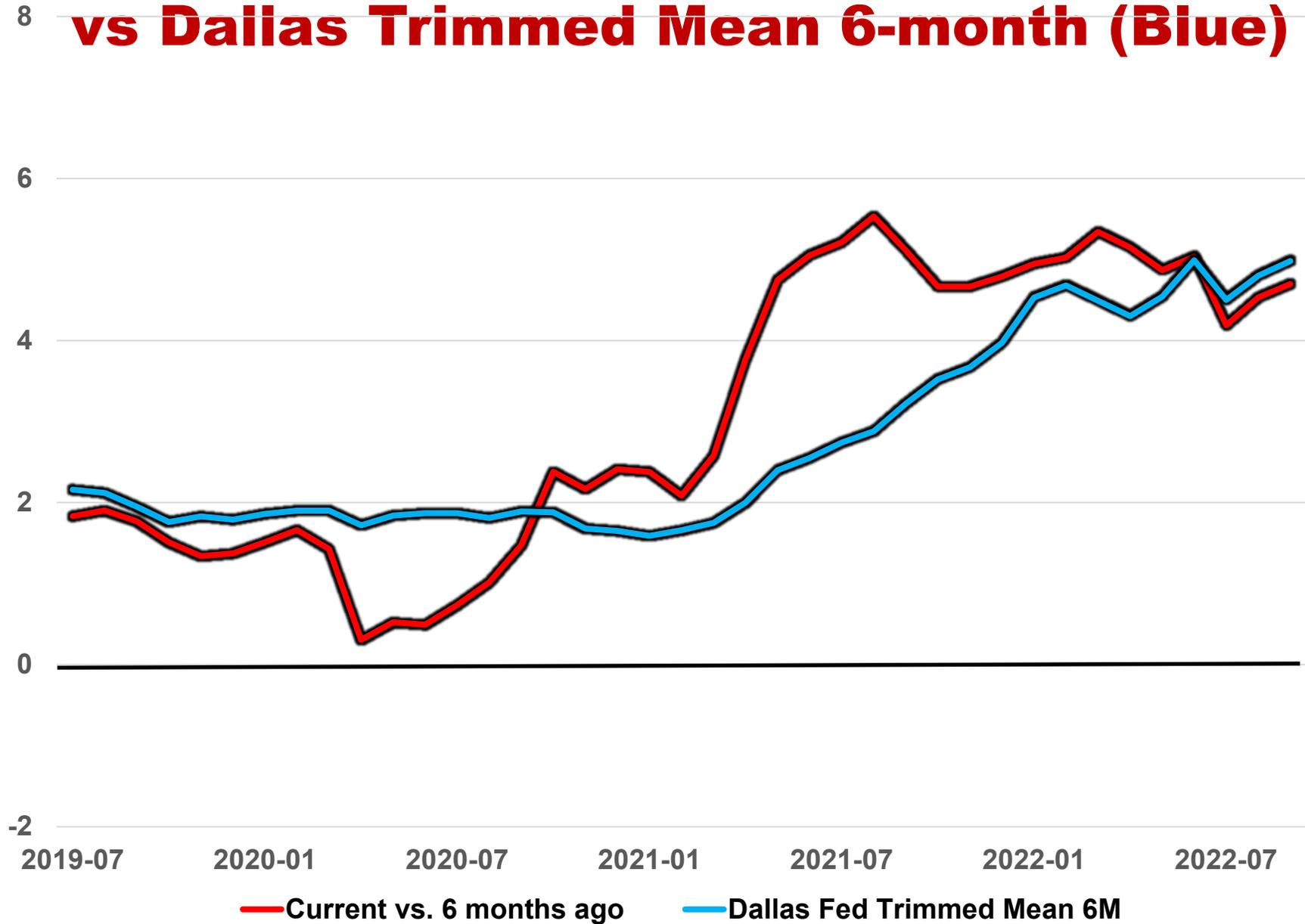
# Core PCE Inflation, 3-month (Green) and 6-month (Red)



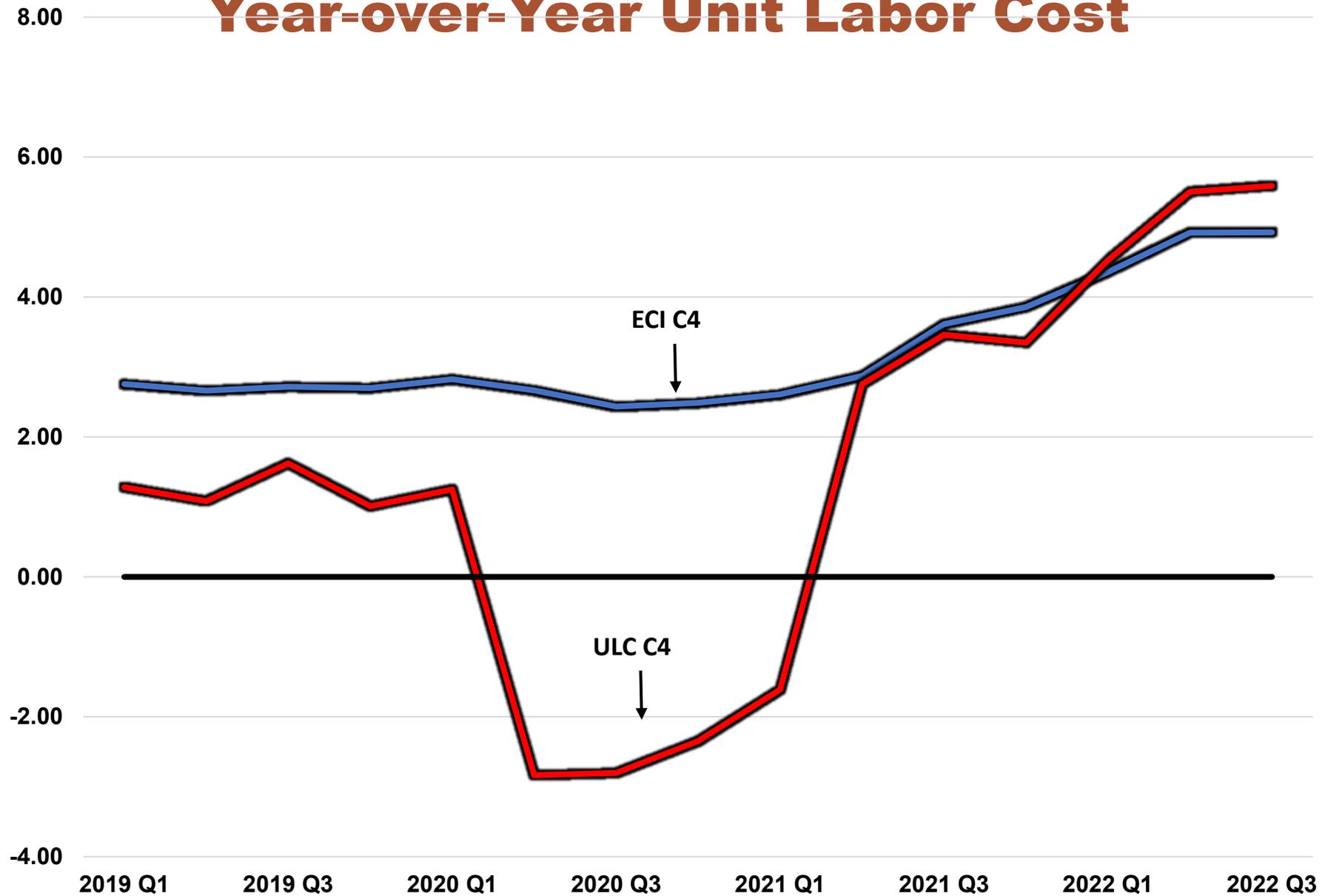
# Services PCE Inflation, 3-month (Green) and 6-month (Red)



# Core PCE 6-month (Red) vs Dallas Trimmed Mean 6-month (Blue)



# Year-over-Year ECI versus Year-over-Year Unit Labor Cost



# When Will Inflation Turn Around and Begin to Decline?

- Excess demand for labor and high lagged inflation implies ECI likely to increase rather than decrease
- Continued rehiring amid labor shortage imply productivity growth will continue zero to negative
- Going the other way, health insurance
- Critical to determining the balance, rents
  - Anecdotal evidence of decline in new leases
  - But upward pressure on rents from high home ownership costs (prices and mortgage rates)
- **Real interest rate is still negative**