



***Macroeconomic Advisers***

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# **Productivity and Potential Growth in in the “New” Economy**

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# The Backdrop

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- Productivity Growth 1973-95 = 1%
- 1995-98 = 1.9%, Since 1998 Q2 = 2.9%
- Late Cycle Acceleration is Unusual
  - Catch-up from 1994-95? Unsatisfactory!
  - Demand-Induced? Unconvincing!
  - Faster *Capital Deepening*?
  - Faster *Technical Advance*?
- Special Role of Computers, Info Tech?

# The Backdrop

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- If It Persists, Important Implications for:
  - The Standard of Living
  - Equity Valuations
- For Fiscal Policy
  - Bigger Structural Surplus
  - More Fiscal Choices
- For Monetary Policy
  - Faster Non-inflationary Growth
  - Smaller Current Output Gap

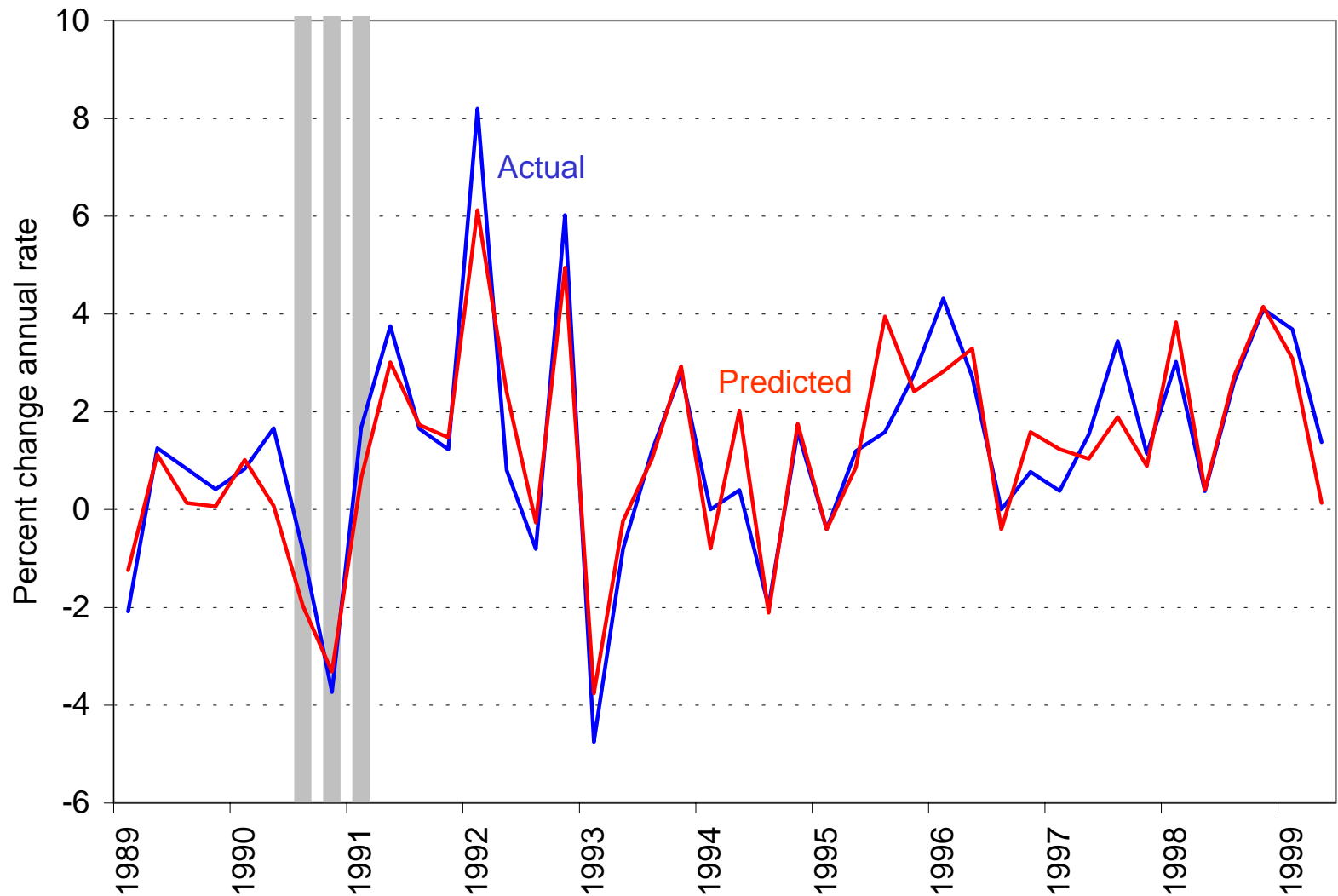
# The Basic Setup

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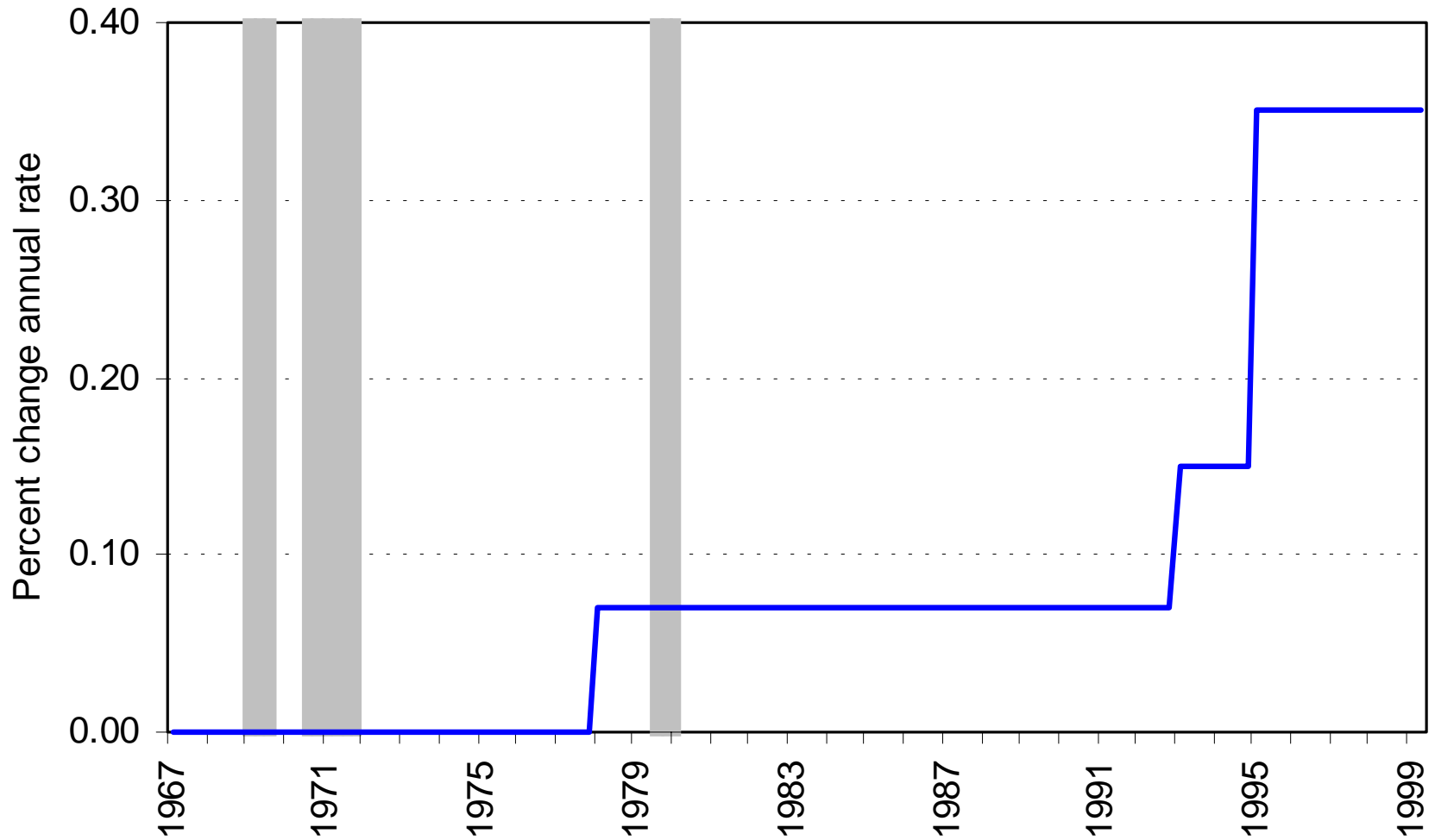
$$\dot{\Omega}_t = \underbrace{\dot{\Gamma}_t}_{\text{Rate of Technical Advance}} + \underbrace{\alpha(\dot{K}_{t-1} - \dot{L}_t^*)}_{\text{Contribution from Capital Deepening}} + \underbrace{\alpha(\dot{i}_{K,t} - \dot{i}_{L,t})}_{\text{Contribution from Relative Utilization}} + \underbrace{\mu_t}_{\text{Unexplained Residual}}$$

- Price Measurement
- **Computer Quality**
- Time Varying Element
- **Computers/Peripherals**
- Other PDE
- Nonres Structures
- Nonfarm Land
- T-O Housing
- Nonfarm Inventory
- Relative Utilization
- Output Acceleration
- Unem Gap Acceleration

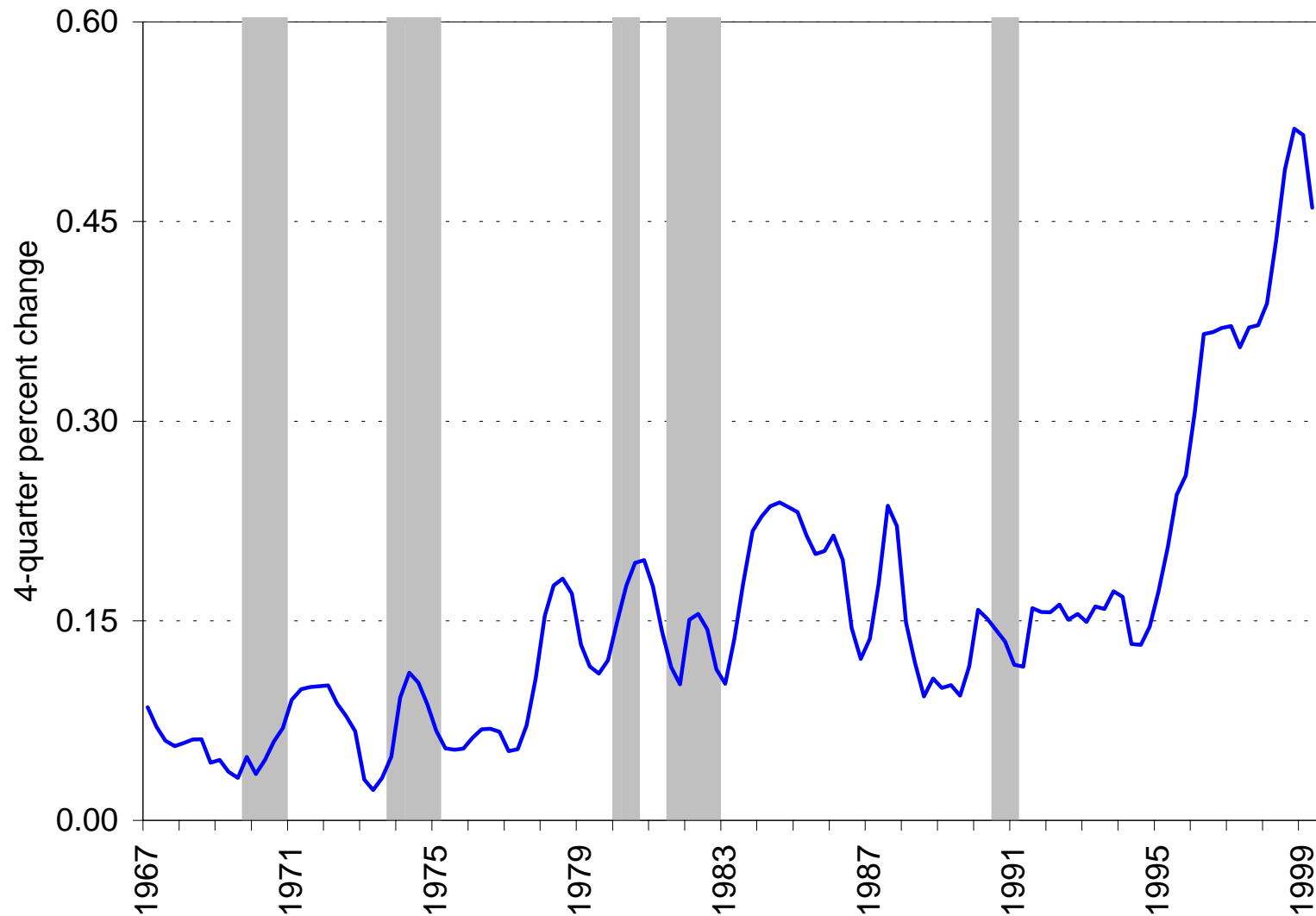
# Actual and Predicted Productivity Growth



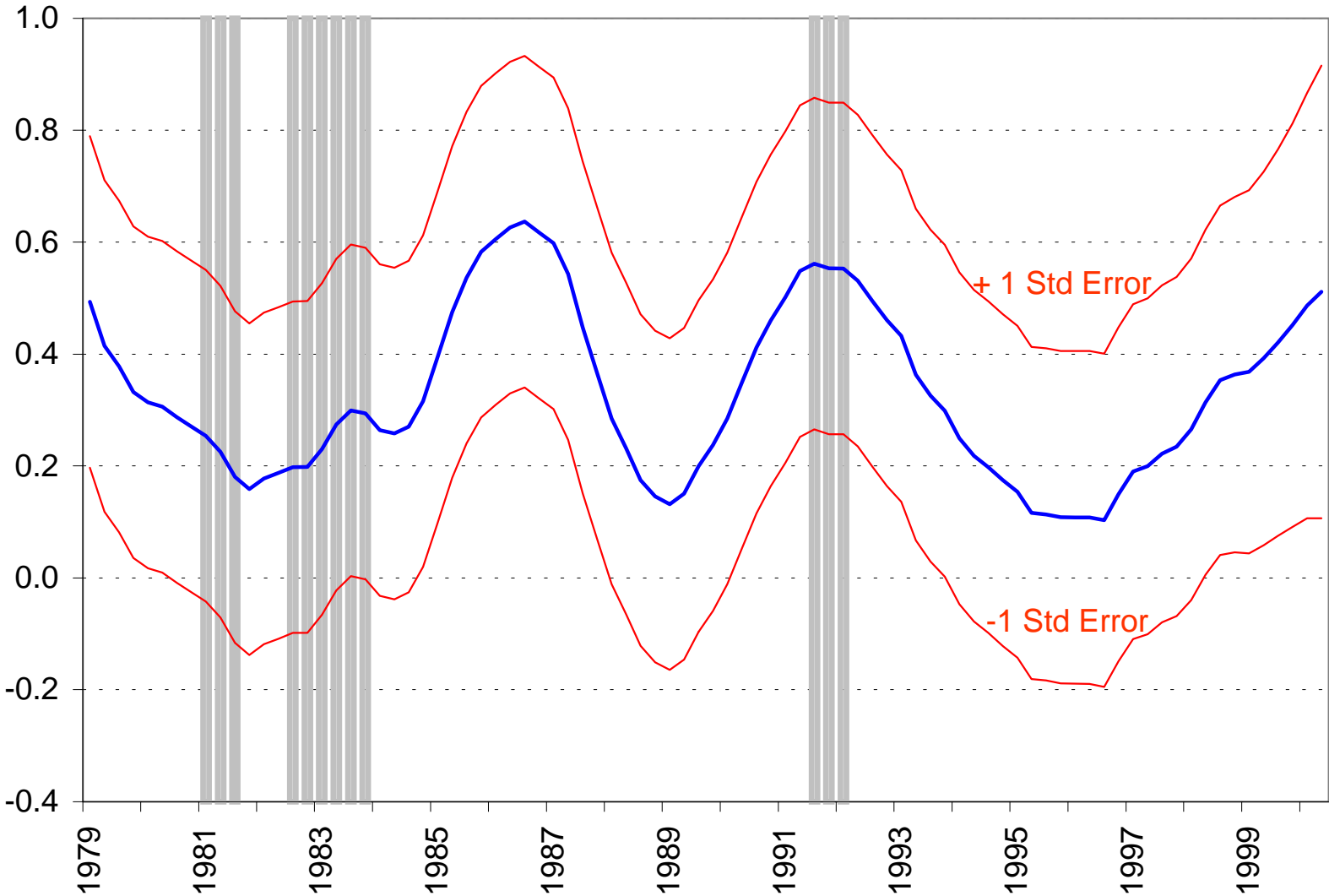
# Rate of Technical Advance: Price Measurement



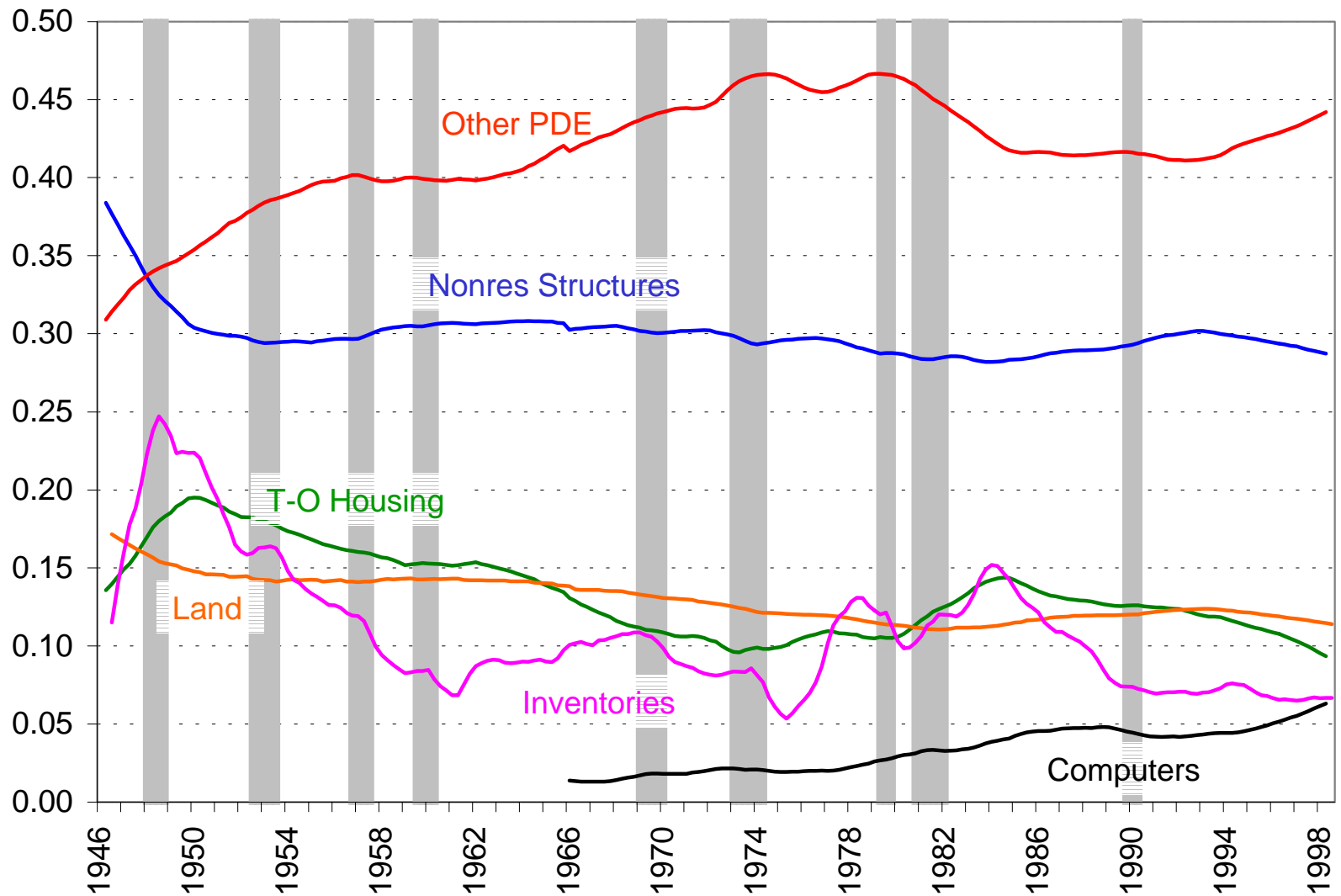
# Rate of Technical Advance: Computer Quality



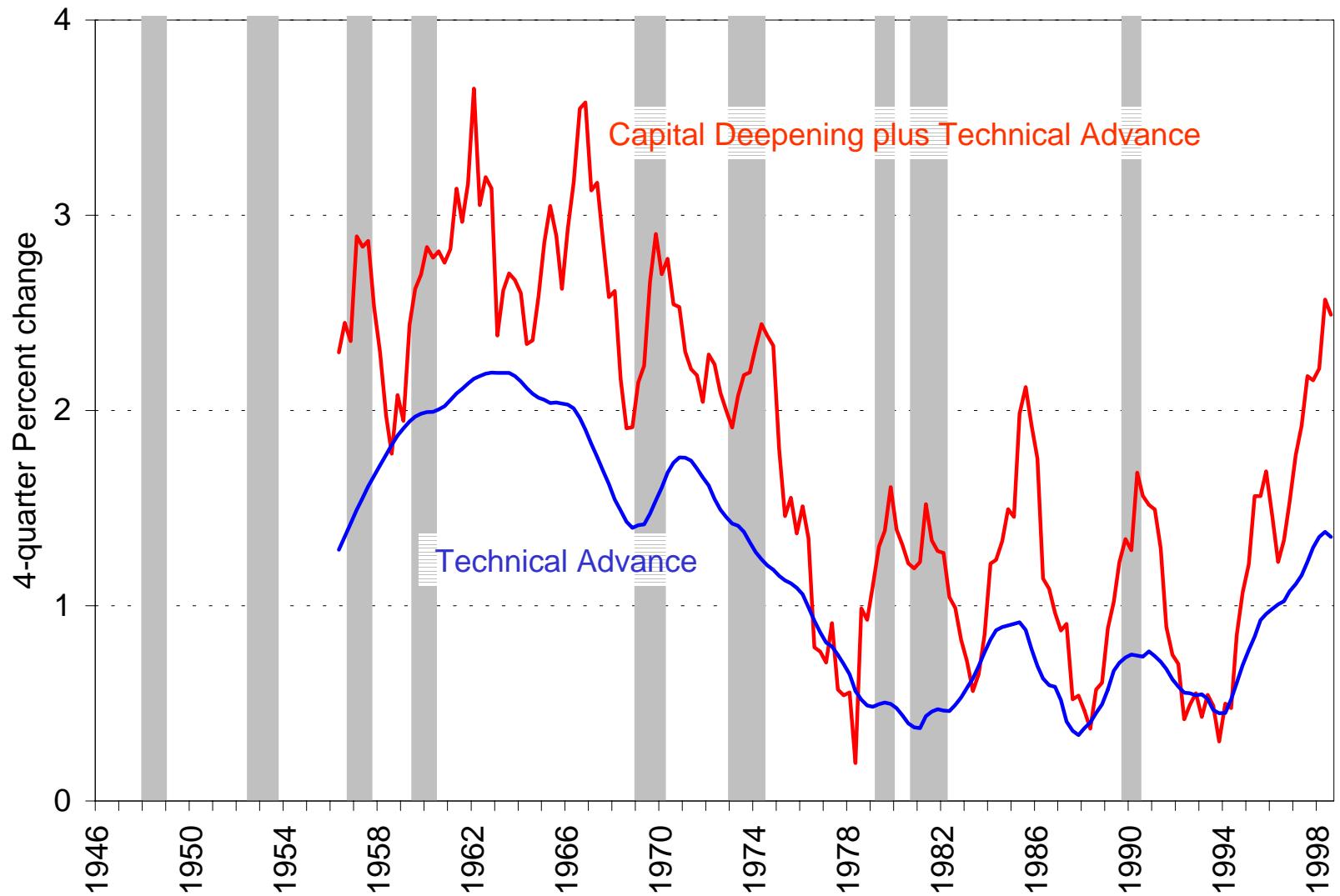
# Rate of Technical Advance: Time Varying Element



# Relative Capital Weights



# Decomposing Explained Growth in Potential Productivity

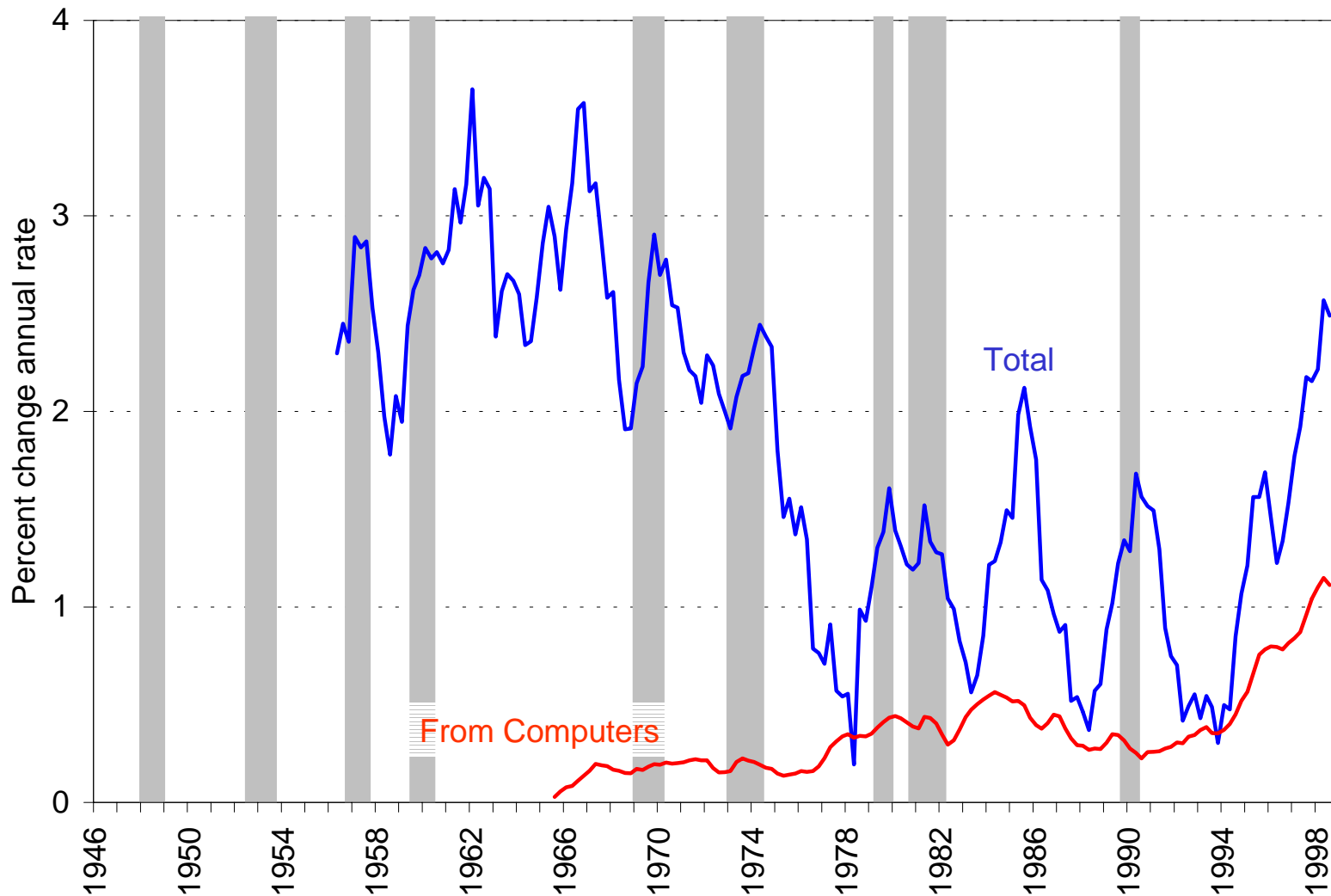


## How New Is the “New” Economy?

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- Strong Productivity Growth Is *Renewed*
- Our Analytical Approach Certainly Isn't New
- Technical Advance from Price Measurement
  - Is Only *Apparently* New
  - And May Be Understated
- Up-tick in Time-Varying Technical Advance?
- The Special Contribution of Computers?

# Contribution of Computers to Explained Growth in Potential Productivity



# Potential GDP: A Conditional Projection

