

EconSouth Fourth Quarter 2013

“The Productivity Paradox: Is Technology Failing or Fueling Growth?” by Andrew Flowers, a senior economic research analyst in the Atlanta Fed’s research department

Discussion questions

1. What is the difference between a “techno optimist” and a “techno pessimist” in terms of economic growth?
2. How do structural and cyclical trends differ? What is an example of each? Which trend does the Federal Reserve tend to focus on in setting monetary policy?
3. Which three factors does the Congressional Budget Office point to as explaining the slowdown of potential gross domestic product in recent years? How have demographics played a role?
4. How does productivity growth drive economic growth? What are two ways in which productivity is measured? Which one captures the effect of technology?
5. How did macroeconomist Robert Gordon describe the three industrial revolutions? What were the technological breakthroughs of each? In which revolution was the highest productivity growth seen?
6. What six factors does Gordon feel explains the slow growth in the recent industrial revolution? What does he think this will mean for per capita growth for most Americans?
7. What is meant by the “productivity paradox”? How did economist Robert Solow describe it?
8. How do the techno optimists explain the slow productivity growth in the computer age?
9. How does techno-pessimist Tyler Cowen explain the slow productivity growth of recent decades using marginal analysis? What does he predict that machine intelligence will create in the future?
10. How will technology contribute to skill biased technical change and labor market polarization? Do you think that technological advances will make an education more or less valuable in the future?
11. What is the mainstream view of the current slowdown in productivity?

Related links

[“Are You a Techno Optimist or a Techno Pessimist?”](#) *The Technological Citizen*

Where do you stand in the debate? This blog post can help you decide.

[“Debate: Erik Brynjolfsson and Robert J. Gordon at TED2013,”](#) TED talk, posted by [Thu-Huong Ha](#), February 26, 2013

Watch as two prominent thinkers in the productivity paradox debate share their opposing views—and find some common ground—in this TED talk.

[“Economists Debate: Has All the Important Stuff Already Been Invented? Northwestern University Colleagues Have Opposing Views of 21st Century Economy,”](#) Timothy Aepfel, *Wall Street Journal*, June 15, 2014

The article highlights the views of techno-pessimist Robert Gordon and his Northwestern University colleague and techno-optimist Joel Mokyr.

["Freaks, Geeks, and GDP: Why hasn't the Internet helped the American economy grow as much as economists thought it would?"](#) Annie Lowrey, Slate.com, March 8, 2011

This article covers the basics of the productivity paradox and introduces the major players in the current debate.

["Innovation Pessimism: Has the ideas machine broken down?"](#) The *Economist* online, January 12, 2013

The article gives an overview of the productivity paradox debate with useful graphs.

["Is U.S. Economic Growth Over? Faltering Innovation Confronts the Six Headwinds,"](#) Robert J.

Gordon, National Bureau of Economic Research, August 2012

Techno-pessimist Robert Gordon's article sparked much of the current debate.