A Wicked Flip? Technology and Workers

Andrew McAfee, MIT
amcafee@mit.edu
@amcafee
Two stories about capitalism, which explain why economists don’t reach agreement

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Why is it that if you know an economist’s political leaning you can guess many of his or her factual beliefs? Would raising the minimum wage would help or hurt the poor overall? Is
Real Wages vs. Population in England, 1280s – 1860s

Source: Clark, 2005
“We are being afflicted with a new disease of which some readers may not yet have heard the name, but of which they will hear a great deal in the years to come--namely, technological unemployment. This means unemployment due to our discovery of means of economising the use of labour outrunning the pace at which we can find new uses for labour.”

- John Maynard Keynes, 1930
The Great Decoupling

US Productivity, Real GDP per capita, Employment and Income: 1947-2012

Source: research.stlouisfed.org
The Great Decoupling

Composition-Adjusted Real Log Weekly Wages

Source: Acemoglu and Autor, 2010  http://economics.mit.edu/files/7006
Technology-driven

“The adoption of computers substitutes for... workers performing routine tasks—such as bookkeeping, clerical work, and repetitive production and monitoring activities—which are readily computerized because they follow precise, well-defined procedures.”

- Autor and Dorn, 2013
“We evaluate numerous alternative explanations for the pronounced differences in wage and employment polarization... including deindustrialization, offshoring, ... and growing low-skill immigration. None of these alternatives appears central to our findings.”
- Autor and Dorn, 2013
Global

Change in Occupational Employment Shares in Low, Middle and High Wage Occupations in 16 EU Countries, 1993 - 2010

Source: Goos, Manning and Salomons (forthcoming, Table 1). High-paying occupations
Capital / Labor Split

Corporate Profits After Tax and Labor Share as % of GDP, 1947-2013

Source: Federal Reserve Bank of St. Louis, Economic Research
Technology-driven and Global

“We document, however, that the global labor share has significantly declined since the early 1980s, with the decline occurring within the large majority of countries and industries. We show that the decrease in the relative price of investment goods, often attributed to advances in information technology and the computer age, induced firms to shift away from labor and toward capital.”

- Karabarbounis and Neiman, 2013
Effective Policy Responses
The ‘Econ 101 Playbook’

- Education
- Infrastructure
- Entrepreneurship
- Immigration
- Original Research
The ‘Econ 101 Playbook’

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U.S. Students Slide In Global Ranking On Math, Reading, Science

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BILL CHAPPELL

American 15-year-olds continue to turn in flat results in a test that measures students’ proficiency in reading, math and science worldwide, failing to crack the global top 20.

The Program for International Student Assessment, or PISA, collects test results from 65 countries for its rankings, which come out every three years. The latest results, from 2012, show that U.S. students ranked below average in math among the world’s most-developed countries. They were close to average in science and reading.

A graphic released with the 2012 PISA results shows the annualized change in performance in average math scores between 2003 and 2012. The chart includes only nations that have comparable data from both 2003 and 2012.
In spite of soaring tuition costs, more and more students go to college every year. A bachelor’s degree is now required for entry into a growing number of professions. And some parents begin planning for the expense of sending their kids to college when they’re born. Almost everyone strives to go, but almost no one asks the fundamental question posed by Academically Adrift: are undergraduates really learning anything once they get there?
The ‘Econ 101 Playbook’

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Infrastructure

Entrepreneurship

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Figure 1. The U.S. economy has become less entrepreneurial over time Firm Entry and Exit Rates in the United States, 1978-2011

Source: U.S. Census Bureau, BDS; authors’ calculations

Hathaway and Litan, 2014
The ‘Econ 101 Playbook’
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Conclusion

- Absent intervention, AI advances seem likely to increase the great decoupling
- ... but large tech changes have *always* called for policy interventions
- The Econ 101 playbook is clear, but is not being followed