

Answer to a question from *The International Economy*, Fall 2017:  
“Does the Conventional Wisdom About Productivity Need to be Reconsidered?”

### Can Technology Hurt Productivity?

J.Frankel, HKS, Oct. 5, 2017

There are a variety of explanations for the declining growth rates in productivity and GDP that have been observed in recent years. The most prominent explanations involve technology. On the one hand, Robert [Gordon \(2016\)](#) has persuasively argued that we should not expect Information and Communications Technology (ITC) and other technological innovations of recent years to have as big an economic payoff as electricity, the automobile, and other technological revolutions of the past. On the other hand, Martin [Feldstein \(2017\)](#) has argued persuasively that productivity growth is higher than we realize because government statistics “grossly understate the value of improvements in the quality of existing goods and services” and “don’t even try to measure the full contribution,” of new goods and services, and that these measurement errors are probably becoming more important over time.

Not much attention has been given to another possibility: while ITC and other technological developments bring many heralded benefits, they have some less-heralded negative side-effects that may contribute to the slowdown in productivity and growth. At the risk of being thought a Luddite, I offer a partial list:

- The advantages of each new incarnation of computer software or hardware are partially offset by the hours that everyone has to spend learning how to use it.
- Employees spend part of each work day on non-work emails, social media, internet videos and videogames.
- Addictive videogames may undermine job skills and hours worked for some of the young. A recent [study by Aguiar and co-authors](#) finds recreational computer activities partly explain a decline in labor supply by men ages 21 to 30.
- I will try to forebear expanding into things that merely undermine quality of life without showing up in the productivity statistics. (Have you stopped answering your phone due to the proliferation of robocalls? And how about the dangers of texting while driving?) But spam, viruses, and security breaches, impose big costs on businesses as well as households.
- Those are just negative side effects of information technology. A list of other technological innovations with obvious downsides would include opiates, advanced weaponry, and more.

To be clear, I am not suggesting that the net effects of recent technological advances are negative. But some innovations have negative side-effects, including for productivity, and that seems often to be ignored.

### References

Mark Aguiar, [Mark Bilz](#), Kerwin Kofi Charles, and Erik Hurst, 2017, "[Leisure Luxuries and the Labor Supply of Young Men](#)," NBER WP 23552, June

Martin Feldstein, 2017. "[Underestimating the Real Growth of GDP, Personal Income, and Productivity](#)," Journal of Economic Perspectives, vol. 31(2), pages 145-164.

Robert Gordon, 2016, "[The rise and fall of American growth: The US standard of living since the civil war](#)" (Princeton University Press).