

## The Innovation Plateau

April 2013

We once had economies that grew because it was natural for them to do so. Population growth required more consumption of everything. Innovation fueled productivity growth, allowed wages to grow and the cost of most everything to decline, inspiring more consumption. And new innovative products inspired consumption by providing for an easier and more robust living experience. Under these circumstances, our economy seemed to be a rising tide that over many years continued to lift most ships.

As we know, this doesn't describe today's developed market economies. Our current economy seems stuck treading water. Economically inspiring demographics have turned 180 degrees, with stagnant populations at best, while median age continues to rise. Stagnating populations don't buy as much new stuff, and old people don't need to buy as much stuff as the young.

Today, innovation isn't inspiring productivity growth as much as it seems to be attacking the developed world's labor pool, either by shifting labor to more cost effective markets, or by replacing labor outright with automation. Thanks to technology, the number of jobs around the world is growing, but the number of jobs in the US is lower than it was five years ago. One can't consume without the wages of labor, yet we can't seem to create enough worthwhile jobs.

The whole nature of economy in the developed world has changed, which shouldn't really be a surprise since everything is always changing. But this change, where organic growth seems to have left the room, is quite unsettling. The sustainability of our social, political, and economic infrastructures depends on growth. No growth means these infrastructures could collapse around a lot of unhappy people. Which comes first may be great subject matter for a future socioeconomic history lesson.

More than anything else, innovation has led the way for growth since Gutenberg invented the printing press around 1450. Since then, we've had one innovation after another that has helped propel economy. In doing so, the quality of life and life expectancy exploded, and so followed population.

In 1850 the world's population was around a billion. Today it stands at seven billion. A newborn's life expectancy in 1850 was 38 years. Today the life expectancy of a newborn is close to 80 years. For most of human existence, life expectancy was probably at best 35 years of age. Now, in a tiny fraction of historical time, it has at least doubled, and the Earth's population, a 7X increase.

Innovation dramatically juiced economy for hundreds of years. From the steam engine to distributed electricity to the car, airplane, telephone, medical discoveries, and modern home conveniences, innovation became ubiquitous. This enormous increase in the quality of life inspired a population explosion. Growth fed on growth. Innovation growth led to population growth that led to more innovation growth.

But what if we are now innovated out? Sure there are thousands of innovations to still take place, but will they be as economically valuable as the enormous life changing inventions of the last 450 years?

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The innovation that really matters is that which makes us personally more productive because it allows us to earn more wages, which inspires more consumption. The fact that wages have been stagnating for over a decade may be evidence that we could be innovated out, at least for the near term, which in historical standards could equal generations of time. The innovation we see today may be less consequential incremental change, or worse yet, something that causes us to become less productive.

Consider our latest, greatest “innovation”, the social media explosion. Is social media making us personally more productive or is it stealing time away from our productive capability? Is social media increasing our overall societal productivity as much as distributed electricity, the washing machine, automobile, or telephone? Where is the example of social media catapulting productivity and economy like the PC and Internet? Where is the social media inspired economic explosion?

It seems the best one might argue is that social media is a new form of advertising and/or a new form of leisure, but at the expense of what previous advertising and leisure? Have we traded in the book, newspaper, and magazine for gossip and self-absorption? Yahoo’s latest decision to pull employees back into the office suggests productivity may be higher when people are face-to-face rather than just electronically connected.

Again, the innovation that really matters is that which makes us personally more productive. So how much more productive can we get? Is Google going to plant a chip in our brain so we can access the Internet and solve problems faster than typing or speaking? Will someone commercialize the Star Trek teleporter so we can do away with planes, trains and automobiles? When are we going to see a nutriment pill that replaces our need to cook and eat food?

What part of modern life can we improve on that will make us more productive? How much faster and cheaper can we make and get our basic needs of food, clothing, shelter, energy, transportation and communication? What new needs can we envision that will increase our personal productivity?

It's not just economic pundits and technology junkies that profess we can always depend on new innovation to inspire growth, but all of us regular folk assume it will continue because that's what we have experienced in our lifetimes. We really only know that which we have personally experienced. That's what sets our expectations. We expect innovation. We expect growth. But what might we have forgotten to learn from longer-term human history?

There was never a sizable and sustainable middle class until *long after* Gutenberg's invention unleashed the minds of mankind. Now we believe having a middle class is a mandatory political and economic goal. And it appears happiness today can only be achieved by having a MacMansion with at least two luxury cars, appliances, and electronics littered around, assisting but maybe now also enslaving us. We have everything we need, so now economy seems driven mostly by what we want.

We have become growth addicts. And we are certainly innovation addicts. But what if we've reached an innovation plateau? Clues of how such will affect economy and our lives may likely be in view today.

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A handwritten signature in black ink, appearing to read 'Douglas' in a cursive style.

Douglas A. Leyendecker  
713-862-3030  
doug@armchaireco.com