EARLIER this week, the American Bureau of Labor Statistics said that labour productivity (output divided by hours worked) grew faster in the second quarter than previously believed. However, despite the seeming good news, the overall trend has been deeply underwhelming (http://blogs.wsj.com/economics/2012/09/05/weak-productivity-is-another-bane-of-recovery/). Is this the "new normal" or a temporary bump on the long road to material prosperity?

Before 1750, the standard of living improved at a glacial pace, if at all. Farming in the early 18th century was not that different from farming in Biblical times. The Romans had invented plumbing before the very concept was forgotten for millennia. Then, something happened. Within two centuries the biggest material problems of pre-industrial life had been solved: food was plentiful, water was clean, indoor temperatures were controlled, and distance no longer prevented the speedy transit of goods and messages. Devastating wars and deep depressions did nothing to slow this forward march of progress. Since 1970, however, the observed rate of technological advancement has slowed sharply, despite the temporary bump from the internet:

I've been thinking about this after recently reading Robert Gordon's newest paper (via Alphaville (http://ftalphaville.ft.com/blog/2012/08/28/1134571/ahhhh-no-robots/)). Mr Gordon is an
economist at America’s Northwestern University known for his skepticism of the “New Economy” in the 1990s. He believes the poor performance since 1970 is a harbinger of things to come.

The paper begins with a sensible proposition: “The rapid progress made over the past 250 years could well be a unique episode in human history rather than a guarantee of endless future advance at the same rate.” This caution is reasonable. Many of the world’s worst predictions can be blamed on the mindless extrapolation of the recent past endlessly into the future. But this cuts both ways. Mr Gordon’s main piece of evidence is the relatively disappointing productivity performance of the past four decades—a point he spends more than half of the paper belabouring.

On top of the innovation slowdown, Mr Gordon argues that six additional “headwinds” will depress the U.S. economy even further: aging, debt repayment, a broken education system, global labour arbitrage, inequality, and pollution. After cumulating these forces in a “provocative exercise in subtraction,” Mr Gordon forecasts that the standard of living for an American in the bottom 99% of the income distribution will barely increase for one hundred years. Fortunately, both parts of this claim are overdone.

Mr Gordon attributes most of the gains in the past quarter-millennium to three distinct bursts of innovation “followed by incremental improvements” implemented over decades. The first of these “industrial revolutions” started in the late 18th century with the invention of the steam engine, the cotton gin, and the railroad. The second grew out of scientific and technical advances between 1870 and 1900. These “Great Inventions” led to everything from the telephone to electric lighting to indoor plumbing. The third began in 1960 with the development of computers, robots, and the internet. Each “industrial revolution” culminated in “one-time-only changes” such as the replacement of animal power with machine power. Mr Gordon’s historical account is full of interesting details, such as the amount of excrement that horses used to deposit on city streets (“between 5 and 10 tons per urban square mile”). It is plain that the improvement in living standards between 1870 and 1930 (in the United States) was orders of magnitude more impressive than the gains made since 1950, and especially since 1970.

But the lacklustre growth of the recent past is not a useful guide to what we should expect for the future. It would be better to go back to the very beginning. Something happened in 18th century Britain that led to such a rapid (and relatively steady) rise in the standard of living. One answer is that greater political toleration, the deepening rule of law, and the embrace of mercantile virtues—The Enlightenment—created an environment that encouraged risk-taking and technological invention. This claim is supported by Deirdre McCloskey’s work on the rise of bourgeois culture (http://www.deirdremccloskey.com/articles/bv/virtue.php) and by
Acemoglu’s and Robinson’s study of the importance of inclusive political institutions (http://whynationsfail.com/) . Not only would this explain why past quarter-millennium of material progress began when it did, it would also explain why it began where it did. Mr Gordon never argues that liberal values are in any danger.

Some might suggest that liberalisation is itself another "one-time-only" change, the effects of which will dissipate with time. Yet there is something qualitatively different between the changes that occurred during the Enlightenment and material developments such as the proliferation of electric lighting or indoor plumbing. Free people who celebrate entrepreneurship will always innovate and find opportunities for new "one-time-only" changes. This is not necessarily true of those who can relieve themselves sanitarily without recourse to the outhouse. In fact, many of the changes that have occurred since the Enlightenment, such as the emancipation of women, urbanization, and (by and large) the end of racial and religious discrimination, ought to cumulate and reinforce the natural inventiveness of free people. Rather than leading to a slowdown in the rate of innovation, this should lead to a gradual acceleration over time, even if the process might not always be smooth. As long as the United States continues to be an open society, there is little reason to assume that the age of progress is at an end. Mr Gordon seems to be suffering from a lack of imagination. There are plenty of conceivable “one-time-only changes” yet to be exploited, such as 3D printing, intelligent robots, and nanites that could instantly repair our bodies. That they have not yet happened does not mean that they never will.

Mr Gordon’s other point, which is made in the space of just three-and-a-half pages, is that six “headwinds” will further restrain the growth in the standard of living for the American middle class over the course of the next century. He begins by taking the actual growth rate in real GDP per head between 1987 and 2007 (1.8% annually) as his starting point, which is not unfair. That period includes the rapid gains from 1996-2004 and excludes the economy’s performance since the start of the crisis. Mr Gordon then subtracts a few tenths of a percent for each of his six “headwinds.” He admits that “the particular numbers don’t matter” and that he was aiming for “shock value” rather than a concrete prediction. It is difficult to believe that any of these “headwinds” could persist for 100 years but one in particular stands out. Mr Gordon writes that “if inequality continues to rise as it did in the last two decades, income for the bottom 99 percent of the income distribution will grow about half a point slower than” the average standard of living. That seems unlikely. The share commanded by the top 1% grew from about 14% in 1993 to about 20% by 2010 (http://elsa.berkeley.edu/%7Esaez/saez-UStopincomes-2010.pdf) . For Mr Gordon’s “exercise in subtraction” to make any sense, the rich would have to see their share of national income keep going up. In fact, they would end up earning all the income in the country well before the end of the century.
We’ve Been Here Before

Mr Gordon’s fundamental argument is not new. It always seems to regain popularity whenever the economy is in a prolonged slump. In the late 1930s, Alvin Hansen (http://en.wikipedia.org/wiki/Alvin_Hansen) was one of America’s leading economists. He claimed that the United States was doomed to endure a “secular stagnation.” Like Mr Gordon, he believed that his country’s past prosperity was due to a series of favorable developments that could only be exploited once. (He thought they were the settlement of the West and the development of “great new capital-consuming industries.”) More recently, Tyler Cowen, an economist at America’s George Mason University, argued in early 2011 that the United States was in the midst of a “great stagnation” that could last for decades (http://www.economist.com/node/18276872) because—wait for it—the “low-hanging-fruit” of an uneducated populace and uncultivated natural resources had already been picked. Hansen was wrong then. Messrs Gordon and Cowen are likely to be wrong now.