

Swiss Finance Institute Practitioner Roundups



The Social Bubble Hypothesis: Why Economic Downturns Are Unavoidable

Robust long-term average GDP growth means economic development, and can be extrapolated into the future. But what if much classical economics theory were wrong, describing only a mirage of increased wealth? Could there, in fact, be no booms without busts?

To a good first approximation, the development of an economy is captured by its GDP growth rate. Here, the term GDP refers to real GDP per capita, which is the kind that measures the real innovation associated with true progress. In contrast, nominal GDP takes into account two additional contributors to its growth: population increase and inflation. Nominal GDP can grow due to population changes and/or inflation alone, even if real GDP per capita remains constant or is decreasing, creating a mirage of increased wealth.

Strong GDP growth is lauded since it is supposed to reflect increased productivity and higher living standards. A slowing GDP rate is, on the other hand, considered problematic, requiring intervention from policy makers who should attempt to fix this undesirable state of the economy. A good example of the latter scenario is the recent quantitative easing program of the European Central Bank, which tried—artificially—to recover the high-growth regime of the "pre-2008 era".

"It is tempting to see a long-term average growth rate as the norm, and to extrapolate into the future."

Belief in a naturally ever-growing economy is indeed quite well supported when one looks at the long-term trend of real US GDP per capita (r-US-GDP-pc) over recent centuries (Mulbrandon, 2011).¹ Applying a simple fit to the data, one finds a robust long-term average growth rate of 2 percent over the last 200 years. Considering that this data covers a period that includes two world wars, the Cold War, the collapse of the Bretton Woods system, several large bubbles, crashes, and significant changes in interest rate policies, this robust trend is truly remarkable. It is tempting to see this 2 percent growth rate as the norm and to extrapolate into the future.

Classic economics literature mostly supports the idea of a steady long-term trend insofar as business cycle analysis is conducted by correcting GDP data for this long-term trend, and then classifying the fluctuations around that trend line into business cycles. Additionally, the duration of business cycles is restricted, lying somewhere between one and ten years. Fluctuations appearing on

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The full paper can be found at http://bit.ly/2aPJFMS.

¹ Mulbrandon, C. (2011, March 8). Long-term real growth in US GDP per capita 1871-2009 featured on the Visualizing Economics Blog [Blog post]. Retrieved from http://visualizingeconomics.com/blog/2011/03/08/long-term-real-growth-in-us-gdp-per-capita-1871-2009 [31 July 2016].

shorter time-scales are termed seasonal fluctuations, and long-term fluctuations are ignored to avoid the influence of secular trends.

"But average growth rates differ from the typical growth rates encountered at any given time."

The authors' recent work casts some doubt on previous findings on the subject of business cycle periods. Using parameter-free data analysis tools, they examined quarterly r-US-GDP-pc data without making any a priori assumption with regard to minimum and maximum cycle duration. This analysis suggests that no typical business cycle length scales can be inferred from the data. Instead, the authors find a continuous hierarchy of business cycles that are overlaid on top of one another. So, for instance, if there is a business cycle of three years, then on top of that cycle can be found shorter cyclic fluctuations at a one-year period, say.

"Long-term, stable trends are the result of repeated boom and bust periods."

These cycles give rise to an alternation between a low and a high growth rate: rates whose median values are roughly 1 percent and 3 percent, respectively. Over a longer time scale, these successions of high and low growth-rate regimes balance each other out and give rise to the long-term 2 percent growth regime. However, the average growth rate is not a good description of the typical growth rates that can be observed at any given time. The economy does not evolve with a steady growth rate of 2 percent. Instead, this long-term, stable trend is an emergent result of repeated boom and bust periods.

Similar to the collective enthusiasm that can give rise to overvaluation and financial bubbles, the authors suggest that these "generalized business cycles" can be explained within the framework of the "social bubble hypothesis". In a high-growth regime, positive feedback loops are in operation (deregulation, enhanced credit creation, the belief in a "new economy", etc.). This self-reinforcing feedback then leads to widespread endorsements and investments beyond what would be rationalized by a standard cost-benefit analysis. For a time, the economy grows faster than its long-term trend, leading to a phase of creative innovation (e.g., the Internet dot-com bubble) or credit-based expansion (e.g., the housing boom and financialization of the decade prior to 2008).

"The benefits of strong growth regimes lead economists and policy makers—wrongly—to expect strong, continuous growth."

Reactions to such high growth are overenthusiastic and the growth rate itself is unsustainable, and unavoidably turns into a correction or "consolidation" episode until the next upsurge. This suggests that strong growth periods are intrinsically coupled with periods of recession and plateaus. However, due to the short-term benefits associated with a strong growth regime, economists and policy makers tend to form expectations of strong, continuous growth, which can lead to wrong conclusions being drawn. For instance, the cost of the 2008 crisis was estimated to be an output loss of 14 trillion US dollars. Such enormous cost estimates are based on the assumption that output would eventually return to its pre-crisis trend path. In light of the authors' findings, it is incorrect to extrapolate from the pre-crisis growth rate, which was—by the inherent nature of cycles—abnormally high and much higher than the long-term growth rate. In addition, one should take into account the fact that the base rate following a crisis should be low or even negative for the consolidation to work. Moreover, the duration of boom periods may have a direct impact on the duration of recovery periods. Although the authors do not examine this specifically, similar observations are expected to apply to Switzerland and other (Western) economies.

Key Words

Bubble Business Cycle GDP Real GDP per capita

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