

Productivity Of Electricity Usage Climbing

Living organisms are plastic, and no, I am not talking about silicone in its many applications. I am talking about how your brain can form new neural pathways, how your vascular system can expand its capacity and how children's ears can learn not to hear anything their parents say. Market systems, especially in energy infrastructure, are plastic as well. Pipelines and ports can be built and placed to avoid troublesome routes.

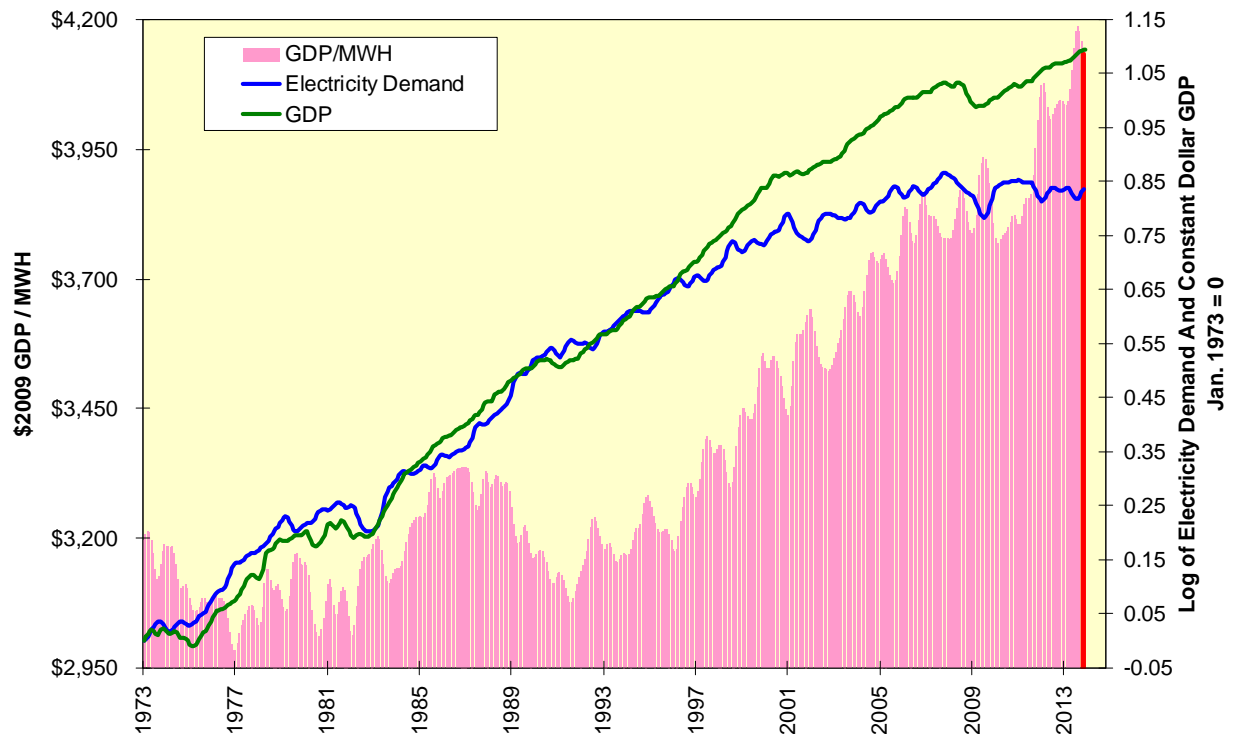
However, no matter how plastic something may be, it can be difficult to overcome self-inflicted wounds such as Germany's perplexing decision to go as "green" as it can in domestic energy production. Wind and solar simply are insufficient to provide baseload electricity and are unreliable unless you believe the wind always blows and the sun always shines when and where you desire. You have to have a Plan B, and in Germany's case, that Plan B has been natural gas-fired turbines with the natural gas supplied from its reliable Russian neighbors to the east.

California is headed in that direction as well with its Renewables Portfolio Standard and its target of 33% of electricity to come from politically favored sources that might, just might, be considered totally harebrained and uneconomic otherwise. Oops; did I just say that or was it the biomass talking? If you want to turn electricity into a luxury good, begin here and keep marching.

Productivity Of Consumption

One of the plastic ways in which the market has responded to changes in the electricity market since various deregulation moves in the 1990s has been vastly increased productivity of consumption as measured by constant-dollar GDP per megawatt-hour. Prior to October 1998, the relationship between GDP and electricity consumption was simple, linear and direct, with an r-squared or percentage of variance explained of 0.988. The U.S. used more electricity to grow, with little apparent increase in efficiency.

Productivity Of Electricity Consumption Reached New High In 2013:Q3



That relationship started to break, and the post-October 1998 r-squared has declined to 0.815. The real changes started to occur after 2007 as the various Bush-era proposals for alternative energy and cap-and-trade changed both utility and consumer behavior. Electricity demand peaked in November 2007 and has declined at a 0.49% average annual rate since then while constant-dollar GDP has advanced at a 0.99% average annual rate. We learned to do more with less, and the productivity of electricity usage has ratcheted higher, peaking so far in 2013:Q3.

Electric Utility Underperformance

While higher productivity is to be celebrated, it has not been a joy for electric utility investors post-November 2007. The S&P 1500 electric utility group has underperformed the Supercomposite itself with a 2.56% average annual return versus 6.46% for the broad market. The electric utility group includes stalwarts such as American Electric Power (AEP), Duke Energy (DUK), Edison International (EIX), Exelon (EXC), Pepco (POM) and Southern (SO). Much of the utility sector's return over this period has been attributable to its high dividend yield, 3.98% at present, relative not only to ten-year Treasury yields but to utility bonds themselves. This dividend yield is equivalent to the yield on ten-year BBB-rated utility bonds. If and when long-term interest rates rise, a statement and not a forecast, utility returns will be pressured.