

Bumping against the Growth Ceiling: Implications for Nuclear Energy

By Gail E. Tverberg

Biography: Ms. Tverberg's is a researcher and writer on the subject of how limited oil supply can be expected to affect the economy. Her background is as a casualty actuary, working in the insurance industry. In 2005, she became interested in the oil-economy issue, because she realized that limitations on oil supply could indirectly cause problems for the financial industry. She left insurance consulting in 2007 to work exclusively on this issue, and became an editor of The Oil Drum, a web site dealing with "Energy and our Future," in 2008. She has written a peer-reviewed article for the journal *Energy* called "Oil Supply Limits and the Continuing Financial Crisis." She also has her own blog, Our Finite World (ourfiniteworld.com).

Abstract: The nuclear industry implicitly assumes that the future will be at least as good as today, in terms of providing a suitable environment for nuclear reactors. But what if this isn't the case? We live in a finite world and at some point, we can expect to start reaching resource limits. It appears that we are now reaching the first of these limits to cause significant problems, and that is *inadequate supply of cheap oil*. (There is still plenty of expensive-to-extract oil in the ground!) The lack of inexpensive oil tends to cause problems such as recession and debt defaults, especially for oil importing countries. Because high oil prices are tied to high food prices, lack of inexpensive oil can lead to riots and overthrow of governments. All of these issues call into question the assumption that new nuclear reactors can exist peacefully for the next 60 years in their new locations, and that resources for decommissioning will be available at the end of that time. Perhaps we need to rethink nuclear strategy.