

Seeking Alpha

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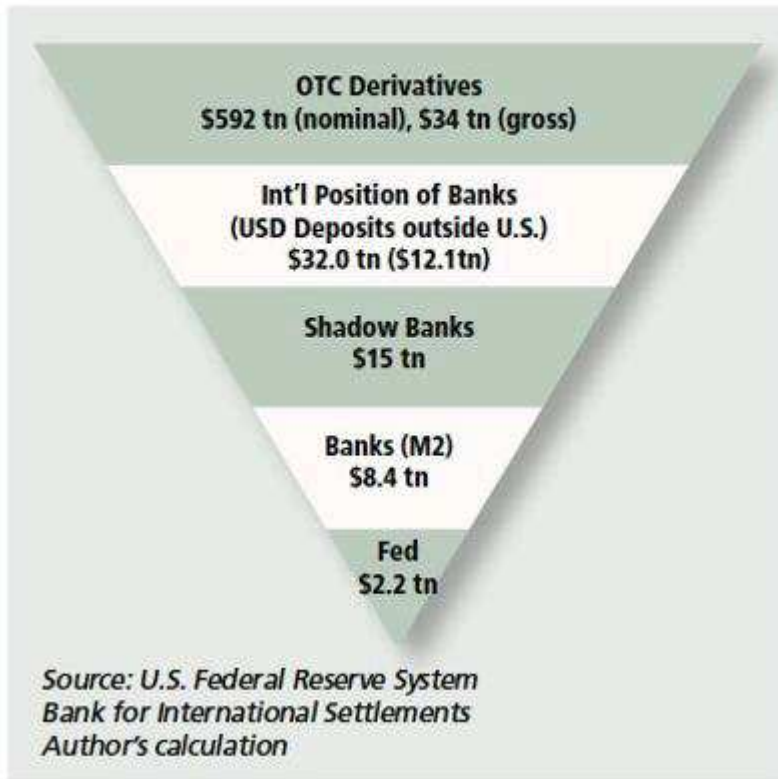
## On Leverage [14 comments](#)

by: John Lounsbury

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Steve Hanke at The *Cato Institute* has constructed the following picture of worldwide leverage ([here](#)), based on dollar denominated activities.

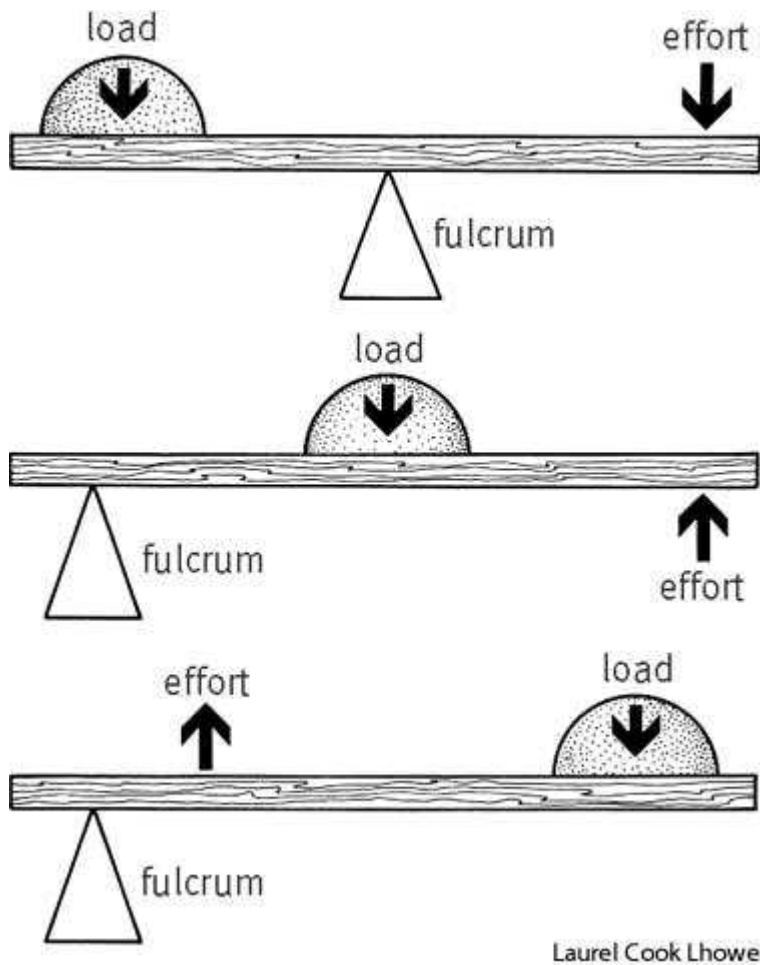
### Chart The USD Credit Triangle



This picture assumes that the leverage of the world is balanced on the financial construct of the United States. In view of the ownership of U.S. sovereign debt and dollar denominated financial derivatives throughout the world, this is very logical.

#### Use of Leverage

Accepting the concept that the U.S. financial structure is leveraged, as shown in Hanke's diagram, and the world financial structure is leveraged off the U.S. financial structure, let's look at how levers are supposed to work. The three types of lever mechanical constructs are shown in the following diagram from *The Free Dictionary.com* ([here](#)).



The world financial system is presumably the fulcrum for increasing the leverage for doing work in the world that depends on financing productive activities. The fulcrum that Hanke has drawn looks nothing like the fulcrum in any of the three stable mechanical systems. In fact, if you place Hanke's inverted triangle in place of the fulcrum in any of the three lever type diagrams, the existence of even the slightest load or effort tips the fulcrum off its balancing point and the mechanical system collapses.

### Over Leverage

I would suggest that the financial system, existing in a vacuum, can remain stable, balanced on the inverted pyramid point. But, when financial leverage becomes extreme, the internally stable structure can not withstand any external force (economic activity) outside the complex interrelationships that are so carefully balanced on the single point.

The situation described in the previous paragraph is called a metastable condition in the physical world. Stability exists only in the absence of a stimulus sufficient to initiate movement to a more stable condition. A metastable condition can be compared to a balancing act.

Systems of fractional reserve banking are utilized to increase the velocity of money. One dollar of money can have the effect of several dollars when credit is created several times the value of the reserve dollar. This works well when the credit is used to increase production of things of utility. It leads to metastable conditions when the credit is used simply to create more credit.

### Valueless Money

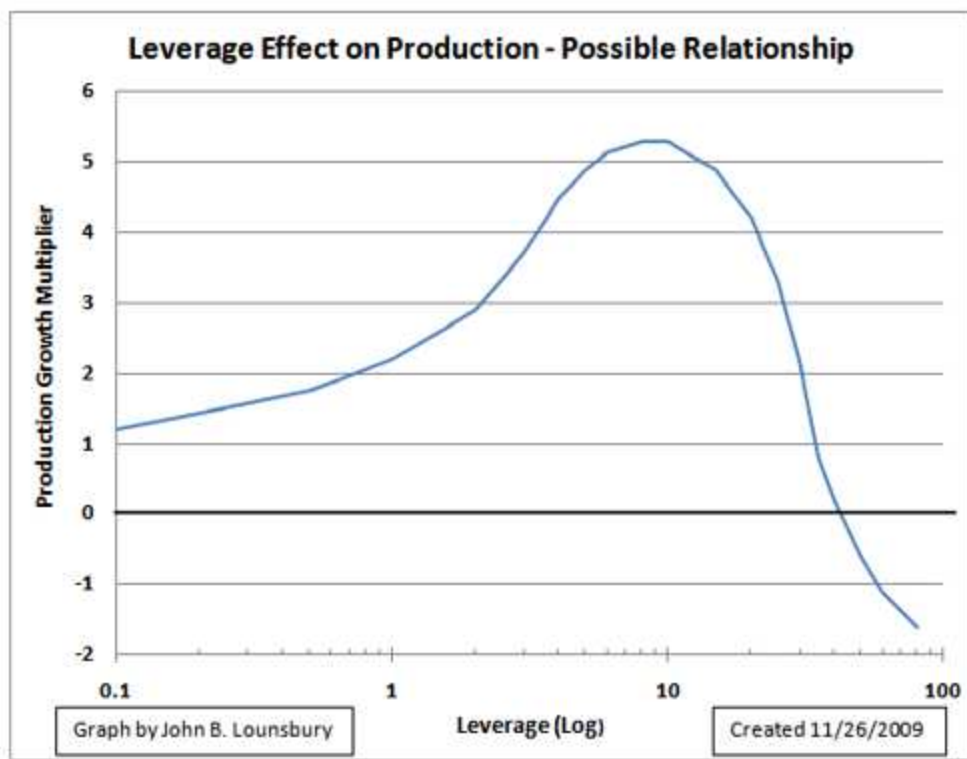
Credit is surrogate money. Money has no value; only the things it can be exchanged for can have value. If credit is used to do nothing but create more surrogate money, it is valueless. A measure of marginal valuelessness is inflation. It can be argued that 95% of today's U.S. dollar is valueless. That is the value of the U.S. dollar destroyed by inflation in the past century.

The above argument overstates the loss of value because many things of utility have been created during this century that did not exist at the beginning. But it is certainly true that a significant part of the inflation of the past hundred years represents no value. A Ph.D candidate could do a thesis on an analysis to determine the value obtained and the valuelessness accumulated

in the past century.

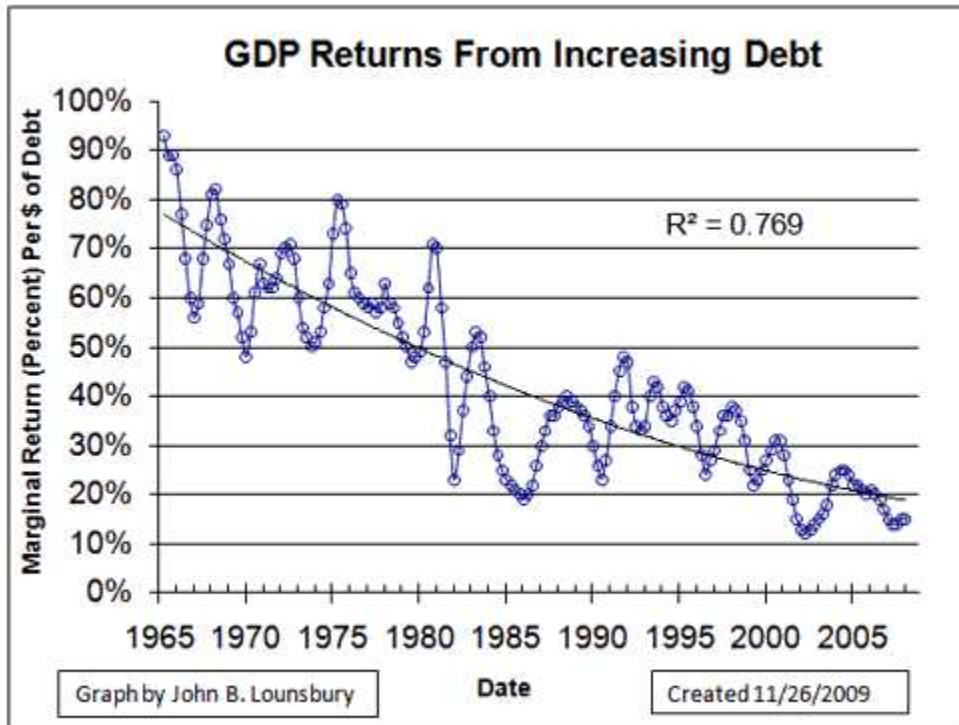
### Limits of Leverage

I expect that such a research project would produce a curve such as the following, which would define the limits of leverage:



Data is hypothetical

This curve could have as much (and as little) value as the famous (infamous) Laffer Curve relating the amount of tax revenue to the level of taxation ([here](#)). It has a relationship to the following graph based on real data, which is adapted from what I have published earlier this year in "the Declining Usefulness of Debt" ([here](#)). Go to that article for details and acknowledgements regarding the origin of the relationship graphed.



Data: St. Louis Fed

The above graph shows that the added improvement in GDP per dollar of debt has been declining for the past 40 years and is approaching only ten cents of increased GDP for every added dollar of debt. The debt referred to here is total debt: all public and private debt.

### Summary

Archimedes famously said, "Give me a place to stand and with a lever I will move the whole world." He didn't mention the fulcrum; that was simply implied. Today, in finance, the fulcrum is the crux of the matter and it has been neglected. In addition, if the lever becomes long enough to have a very large mechanical (or financial advantage), destabilizing forces can cause the slightest deviation from equilibrium to produce loss of control and a crash.

Archimedes may have been able to move the world with a big enough lever, but it would be quite another matter for him to have controlled the movement.