**Edited (Tracked)**

America’s Structural “Technology” Imbalance

The 2007–2009 American recession officially began in December 2007, lasting eighteen months until its official conclusion in June 2008. It was longer than the previous three recessions in 1973–1975, 1981–1982, and 2000–2001, and since the Great Depression, it was the deepest recession, referred to as the Great Recession.

After this recession was supposed to be officially over, for over nine years, the US growth struggled below 3 percent compared to 7.7 percent a year post the 1982 recession and 6.2 percent a year after the 1975 recession. Official unemployment hovered at around 10 percent a year after the recession was supposed to be over, around 9 percent two years after, around 8 percent more than three years after and is currently at around 5 percent with several question marks over the reliability of this figure. Correspondingly, China has presented a steady annual growth of 7.5 to 8 percent since 1978 without recessions and is currently hovering at round about 7 percent growth rate. Unemployment in China has consistently hovered at around 4.3 percent, while inequality and poverty in the US have consistently shot up.

The 2007 recession took American policy makers and their economic advisers by surprise. The Chairman of Fed at the time, Ben Bernanke, was telling Congress on July 18, 2007 that: “Overall the US economy appears likely to expand at a moderate pace in the second half of 2007 with growth strengthening a bit in 2008 close to the economy’s underlying trend.”1 He got it all wrong because very shortly after his speech the United States went into a recession. Correspondingly, President Bush at the 2008 State of the Union Speech to Congress said, “We are now in the forty-first month of job growth and recovery that has created 7.2 million new jobs so far. Unemployment is low, inflation low, and wages rising.” Bernanke and the President were, therefore, taken unawares by the recession. The conventional economic profession was unable to predict the recession, despite the masses of conventional statistical data, academic research, and models because they failed to understand the ‘technological’ structure of the economy.

If a friend who has been healthy and strong over the years, plays tennis every day, and regularly sees his doctor, suddenly collapses, it is abundantly clear that he must have an inner structural ailment, which his doctor was unable to diagnose. A reasonable conclusion from this analogy is that the US economy continues to be structurally ill after it collapsed suddenly in 2007. Another reasonable conclusion is that whatever caused the US recession is also outside the knowledge of conventional economists represented by Bernanke. A third conclusion--considering the fact that the immediate previous recessions were mild compared with the 2007–2009 recession--- is that the US economy has a cyclically irregular and unpredictable pattern of behavior. This means that what is driving the US economy must have a large component of cyclical irregularity.

If the US economy has cyclical irregularity, it implies that, similar to a vehicle, it is (technically) structurally unbalanced. Every six or ten years or so, the US economy slips into some kind of recession whose behavior can never be predicted. If the economic cycle suffers an unexpected bigger gyration, as it did in 2007–2009, it is unavoidable that the US will have many more recessions in the future and that some of them may be worse than 2007–2009 with prospects for possible depressions. Scientists associate irregular cyclical behavior with what they call dynamic imbalance and state that the US economic structure is dynamically unbalanced.

Describing the American economy as structurally unbalanced may come as a surprise to many Americans because American policy makers and our conventional economic experts have repeatedly told us that we have the best economy in the world. Having pointed at the gravity of the American structural economic imbalance, I needed, as an engineer and economist, to put this imbalance in perspective to present how this is causing trouble for the US economy, and how economic science is needed if we can save the American economy.

An economy is a dynamic structure because it is perpetually ‘moving’ and changing. According to the scientific law of dynamics any moving object (including human beings) needs to maintain a dynamic balance in order to achieve maximum speed. A car in motion must maintain a dynamic balance at all times. A car consists of several components that must operate as a coordinated whole. An out-of-balance condition in the wheels of a car, for example, can cause increased wear on the ball joints and the deterioration of the shock absorbers & other suspension components and adversely affect the smoothness & speed of the car. Also, dynamic imbalance can cause a car to swing side-to-side while in motion and prevent the car from achieving maximum speed. It is the job of the designer to ensure that the car is built exclusively with components that are necessary in the context of the dynamic balanced movement of the car. Correspondingly, deadweight, which is the weight that has no task to perform, disturbs the dynamic balance and causes high gas consumption like unemployed labor in an economy.

A car in dynamic balance moves effortlessly to achieve maximum speed. A car that is dynamically unbalanced cannot easily achieve maximum speed because the car is contending with many out-of-phase forces than can also make it gas inefficient. Its unbalanced movement presents a cyclical irregularity of motion and correspondingly, the key quality of anything that is dynamically unbalanced is inefficiency. Similarly, America’s economy, because it is unbalanced, is inherently inefficient, which means that it is increasingly uncompetitive. The current American economists do not have the tools to analyze and understand the American economic structure and are not even aware that US economy is dynamically unbalanced. The danger is that if the US imbalance is structural and that it is out of our visibility. It is not the same as driving an unbalanced car as we never feel the US structural imbalance.

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