



The Case for Inflation from a Plateauing Supply

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This is a guest post from [Jeff Vail](#).

Will Peak Oil lead to inflation, deflation, or some variant thereof? I don't claim to know the answer—in fact, I'd argue that anyone who "knows" the answer is discussing theology, not economics. My hope here is to present a case for Peak Oil resulting in inflation, and to spark a centralized debate on the topic. Allow me one courtesy: for the purposes of this discussion, assume that we are not able to sufficiently mitigate the effects of Peak Oil through conservation, efficiency, or alternative energy sources. Assume that Peak Oil will have significant, negative economic effects—the issue that we are discussing here is whether those negative effects will be inflationary or deflationary. I will focus my discussion on effects on the United States, but thoughts on the inflation/deflation debate outside the US are certainly welcome.

A quick review, so that we are all comparing apples to apples.

[Inflation](#) is the decrease in purchasing power of a currency due to an expansion in the supply of that currency ('printing money') and the interest rate offered by that currency's central bank. Personally, I subscribe to the [Austrian theory](#) that interest rates are a function of global economic growth and currency-specific money supply, allowing markets, not central bankers, to play the key role in rate setting.

[Deflation](#) is the opposite of inflation and is an increase in the purchasing power of a currency. There are several theories about the cause of deflation, but there is general agreement that it is caused by the combination of a reduction in money supply and a slowing of consumer spending (because this reduces the velocity of money in the economy).

Central Banking, and Measures of Money Supply

To what extent do central bankers in the US, the Federal Reserve Bank have the power to decide between inflation and deflation? This balancing act is the central problem of [central banking](#). Central bankers have three critical tools in their tool belt: interest rate setting, and setting of reserve requirements, and open market operations.

Interest Rate Setting: The Fed sets the benchmark Fed Funds Rate, which governs the rate at which banks lend—via balances with the Fed—to other banks overnight. While this is the most visible of the Fed's functions, it is possibly the least important. Ultimately, the price of money (the interest rate) is set on the markets, such as through bond trading at the CBOT, and is based on supply and demand. If the Fed sets a rate that is too far off the market rate, it is essentially subsidizing lenders (though, as explained below, they can set that market rate through open

Reserve Requirements: The Fed also sets reserve requirements for banks—how much they must keep in liquid assets to cover loans that they have made. For example, if a bank has \$100 million dollars, and the Fed has a 10% reserve requirement, then that bank can (via fractional reserve banking covered by overnight loans at the Fed Funds Rate) generate loans of \$1 billion dollars. If the Fed changes the reserve requirement to 5%, then that same bank can now make \$2 billion in loans—this increases the money supply, and represents an inflationary pressure.

Open Market Operations: This is, in my opinion, the most important and most hidden tool in the central banker's tool belt. The Fed engages in open market operations by buying and selling their own securities ([T-Bills](#), [T-Notes](#), [etc.](#)). When the Fed sells these securities, they are decreasing the money supply because the private party purchasing the security must give the Fed money now in exchange for a note that will pay them money at some future date. Conversely, when they buy back their own securities, they are increasing the money supply because they are providing money today to buy back a note that only obligated them to future payment. This is the actual mechanism by which the Fed "prints money." There is virtually no limit to the amount the fed can increase or decrease the money supply (there is a theoretical limit to their ability to increase the money supply because they can only buy back all securities currently in circulation, but this isn't much of a limitation), but significant buying or selling of securities will also have a significant impact on their price—essentially the rate of return that the Fed must pay on these debt instruments. Finally, the Fed can get around the theoretical limit of how much they can increase the money supply buy selling higher numbers of very short term T-bills, for which the market will only absorb at an increase in the rate of return—even though this decreases the money supply until the maturity of the T-bills, it has the ultimate effect of increasing the money supply after their maturity.

In addition, central banks such as the Federal Reserve often decide how to report issues related to central banking. Money supply is, in the US, measured by the Federal Reserve. Historically, they provided three measurements of money supply: M1, M2, and M3 (definitions of these measures [here](#)). They recently discontinued reporting the M3—something that I see as an ominous portent signaling the intention to discretely "[inflate away our problems](#)."

Before I lay out my argument for why the Federal Reserve will choose to pursue an inflationary policy in response to Peak Oil, I'd like to outline three specific areas in which the inflation vs. deflation decision will have significant ramifications:

1. The Elephant in the Room: Entitlements

What "environmental" factors will influence the central bank's decision to pursue either inflationary or deflationary policies? In my opinion, the elephant in the room—in both the US and internationally—is our huge set of entitlement commitments and debt obligations. Our entitlement commitments include corporate commitments to pensions (and their government backing when corporations default), and government commitments to social security payments—both especially salient given the wave of "Baby-Boomers" expecting to be able to retire in the near future. In 2004, [\\$492 Billion was paid in Social Security benefits](#). In 2010, the first of the 'baby boom' generation, 76 million Americans, will turn 65, and that number will likely skyrocket. Corporate pension obligations will similarly go through the roof—they are already bankrupting America's car companies, for example—and the likely defaults will increase the burden on the government to pay pensions thanks to our [Pension Benefit Guarantee Corporation](#).

2. Debt Obligations

Our debt obligations are massive, and are held in significant quantities by both domestic and international investors (including nation-states such as China). The U.S. Federal Debt is currently about \$8.5 trillion dollars, [44% of which is held by foreign entities, mostly \(64% of that 44%\) foreign states](#). Inflationary policies will have the impact of reducing the value of our debt obligations, whereas deflationary policies will increase the value of these debts.

3. The Petrodollar System

In addition, inflationary or deflationary policies may have significant impacts on the durability of the existing petrodollar system. *If* the US petrodollar system stays in effect through the effects of Peak Oil, it may mitigate the financial impact with regards to the United States to some degree by passing this burden to other, oil consuming nations. However, for exactly that reason, I see it as likely that the petrodollar system will gradually erode over the next decade or so. I'm no expert in this area, and a huge amount has already been [written](#) on this topic. The erosion of the petrodollar system, though, would likely exacerbate the tendency towards inflation of the US Dollar. The reason for this is that, if the value of a currency is the result of the supply and demand of that currency, then the erosion of the petrodollar system would reduce the demand for dollars, reducing the relative price (value) of those dollars.

The Argument for Inflation

In my opinion, it seems most likely that the US Federal Reserve will pursue a policy of inflation in response to Peak Oil. It is my opinion that central banks can choose between inflation or deflation—though not necessarily the relative magnitude of their choice. That is, the central bank may only be able to choose to create either hyper-inflation or mild deflation. The reason that the Fed has the power to choose either inflation or deflation is because they have theoretically unlimited power to increase or decrease the money supply through open market operations—no matter which way the economy is naturally trending, the Fed can force an inflationary or deflationary environment, though at the extremes these actions will have severe, long-term drawbacks. Given this power to choose, it is my opinion that the US will choose inflation, even hyper-inflation, over deflation, even if that deflation would be relatively mild. There are five reasons why I think that this will be the case:

First, the Federal Reserve will want to maintain at least a modicum of control, and most monetary policy tools at their disposal do not function well, if at all, in a deflationary environment. For example, the bank cannot set interest rates below 0% (well, without giving away money...), and yet a 0% interest rate may not be sufficiently low to expand the money supply to slow or reverse a deflationary spiral.

Second, it is my opinion that our massive entitlement and debt obligations make inflation more attractive than deflation, as they have the effect of diminishing those obligations.

Third, and closely related, is the psychological impact. Inflation can easily be masked by a non-representative [Consumer Price Index](#) (CPI), as I think is currently occurring—the CPI does not include many housing, health care, education, or energy costs. As real inflation gradually erodes the purchasing power of fixed wages and incomes, people will only slowly perceive the damage.

Fourth, and also related, is the short-term nature of our political decision making process. During the relatively benign economic conditions in the US over the past 20 years, with only mild

recessions, it has been possible for the Federal Reserve to act with a high degree of independence from politicians. However, I think that under more severe economic hardship, political forces will exert a great deal of influence over the Fed. With that said, I think that the very short term nature of our political system—with a two to four year time horizon—we will opt for the short term relief of inflation from our debt and entitlement obligations despite the long term pain that inflation will cause.

Fifth, I think that the popular view of history favors inflation over deflation. The Great Depression was a deflationary spiral, and is the benchmark within the American experience for true economic hard times. In comparison, the inflation of the '70s and '80s seems mild. While that comparison may not be valid in reality, I think that it carries great weight in our national psyche. Given the choice, I think that the Fed (especially under increasing political pressure) will do anything to avoid comparisons with the deflationary events surrounding the Great Depression.

Of course, given that I think the negative economic effect of Peak Oil will be severe, it might be more accurate to characterize this inflation as "[stagflation](#)", which is inflation combined with recession (or depression).

Finally, what will about the timing of inflation in response to Peak Oil? This, I think, is one question that is simply to complex to answer satisfactorily. The timing of the decline of the petrodollar system, the timing and speed of the decline in global oil production, and countless other economic factors all come into play. In the end, though, I do not think that the timing issue prevents forming an opinion on the general direction: inflation or deflation? I think that the evidence weighs clearly in favor of an inflationary future.

As a final disclaimer: I am not a central banker. I studied economics and finance in my undergraduate education, as a component of a doctoral program, and as a student at the American Institute for Political and Economic Systems in Europe. I think this debate is incredibly important and interesting, both from a financial mitigation perspective as well as for personal preparations. That said, my goal here is to learn about this issue, not to prove that I am right. Let the debate begin!



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