



The Implications of Deflation

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Back in 1972, I heard for the first time my Economics professor describe a Liquidity Trap. A Liquidity Trap is an economic condition such that lower interest rates do not generate loan demand and therefore do not generate economic stimulus. I thought it sounded a little crazy, for surely at some low rate, people would borrow if only to invest in appreciating assets. With inflation topping out in the mid-teens in the late 70's, I could not imagine a Liquidity Trap ever happening. Europe and Japan are currently there. Their central banks have printed an enormous amount of money and bought government bonds to drive interest rates down to a level they hoped would stimulate borrowing and economic activity. Their efforts seem to have failed.

Why has this happened? It is important to understand one of the big motivations for someone to borrow in order to purchase incremental goods and services. In the late 1970's, the accelerating inflation rate prompted people to borrow and buy today to avoid the higher prices paid in the future. This applies to consumer goods like cars and couches, but especially things like real estate. Chasing and buying the rising asset with borrowed money before it rises further is rational behavior, especially if the asset is rising faster than the interest rate paid. In the 1980's, it made sense to borrow at 8% and buy a house appreciating at 20% a year. Rising prices are further fueled by debt creation, growth in incomes, and a growing population. It creates incremental demand at the margin, or said in the classic phrase, "too much money chasing too few goods."

Europe and Japan have virtually no population growth. In the aggregate, there is no incremental need for more housing. The output of goods and services matches the growth in incomes. There is no upward pressure on prices. There is no urgency to buy. When real estate prices decline, there is no need to buy at all, rent instead. As nations industrialize and mature, their population growth slows and the supply of goods and services balance out, leaving little upward pressure on prices. This has led the European and Japanese Central Banks to drive government interest rates below zero in an attempt to create incremental demand. It hasn't happened, so they are in a Liquidity Trap. Both central banks have attempted to increase their inflation rates with little result. If the inflation rate declines to zero or less, it creates a more extreme behavior, deflation.

Deflation is the mirror image of inflation, but it creates several problems. Just as inflation encourages current consumption, deflation rewards those that hold cash and postpone purchases, decreasing economic activity. Deflation is therefore characterized by a low propensity to buy while prices fall, and a high propensity to save. The remaining emerging markets like India, parts of Southeast Asia, South America, and Africa still play by the old rules of inflationary pressure, with a rising middle class and a growing population. However, the bulk of global GDP, Japan, Europe, North America, and China, is either in or flirting with this new disinflationary category.

Japan and Europe have created mountains of debt. They struggle to get their inflation rate up to their target of two percent. Demand is weak. There is no need to borrow to front-run inflation as prices are declining. They are on the verge of sustained deflation. One third of all sovereign debt in the world is at negative interest rates. German depositors are charged interest for depositing more than \$100,000 in their checking accounts. In Denmark, banks are offering mortgages at negative interest rates. The concern is the next global recession will put additional deflationary pressure on these economies. The key to behavior is to look at interest rates after accounting for inflation, the real rate. If all prices were declining at 3% a year, you would be happy to earn -1% a year in a bond. You are ahead by 2%. There are many bond bears on Wall Street thinking rates are so low, they can't go lower. Where can they go, zero? The rest of the world has shown us that they can go much lower than that. Negative interest rates make sense in a world with declining prices. It is inflation in reverse, theoretically symmetrical.

In the real-world, deflation is not exactly the symmetrical reverse of inflation. Instead, it is a jumble of market distortions. In reality, politics, laws and human psychology hamper this symmetry. As rates go below zero, banks and insurance companies are threatened. Insurance companies are investing to gain excess returns over their future obligations of death benefits, annuities and pension payments. These obligations don't change with inflation or deflation. In a world of negative interest rates, they lose money. Banks also have trouble with negative rates, finding suitable loans to cover a spread even over zero cost funds such as checking accounts. This forces financial companies and lenders in general to increase their credit risk to obtain the required rates of return, which increases risk in the system.

All of this sets up for the moment you have debt defaults, backed by collateral that is declining in price. Lenders lose money and a debt default spiral occurs like 2008 and the Great Depression. As deflation persists, the value of the debt borrowed increases in real terms, aggravating the crisis. Economic activity plummets.

The table below summarizes the two conditions:

Variable	Scenario	
	Inflation	Deflation
Prices of Assets	increase	decrease
Debt Strategy	borrow at fixed rates	hold cash, pay off debt
Consumption Pattern	buy, front run higher prices	hold off for lower prices
Balance Sheet	leverage, long real assets	no debt, long cash
Debt Value	decreases in real terms	increases in real terms

All of this created debt seems to be headed towards deflation with the United States, the last to succumb to these pressures. As debt troubles begin, private borrowers will default. A rerun of 1930 may ensue. This is not a prediction, but more a logical conclusion if the world, and the United States, continue down the path of "debt levels don't matter." Recently, the large supply of Treasuries has stressed the Repo market, where banks borrow money overnight using Treasuries as collateral. As reserves have tightened, the Repo rate has spiked up, forcing the Fed to inject money into the banking system and buy more Treasuries. The Fed can certainly increase its balance sheet again to fix the dislocation, but these types of issues will become larger and harder to manage over time. The real test will be during the next recession, and in all likelihood, we will not fall into the abyss, but no one can be sure.