



**APRIL 2010**  
**DEFLATION OR INFLATION**

When the financial system seized up in late 2008, the primary concern of the Federal Reserve was deflation. Similarly, in the last recession, Federal Reserve officials were concerned that the aftermath of the technology bubble would be a period of deflation exemplified by Japan after their real estate and stock market bubbles burst in 1989. Perhaps accentuating this concern, Mr. Bernanke is a scholar of the depression and, therefore, presumably more concerned about deflation than inflation.

The prescription for deflation was massive fiscal stimulus and a very expansive Federal Reserve policy. In fact, the concept of the Federal Reserve was born out of the Panic of 1907, which featured a desperate liquidity situation where banks did not trust each other. At the time, J.P. Morgan inspected the books of banks that needed money and then advanced them the credit that they needed. Thus, the Federal Reserve was supposed to expand access to credit during a panic or tight money conditions to alleviate lack of liquidity. Clearly the Federal Reserve fulfilled its role in the Panic of 2008.

Now investors wonder, when will the Federal Reserve reign in liquidity? Furthermore, Mr. Bernanke's speech in 2002, stating that central bankers could always induce inflation (i.e. avoid deflation) by running the printing presses, worries investors. It would appear that the Federal Reserve in its eagerness to avoid a deflationary maelstrom will shove the country into an inflationary spiral.

Fortunately, inflation does not appear to be a concern in the short to intermediate term. In the short-term, cyclical effects will limit inflation. Historically, inflation has fallen during every recovery, since recessions create economic slack. Longer term, technology and trade will continue to exert deflationary pressures.

**High Unemployment and Excess Capacity**

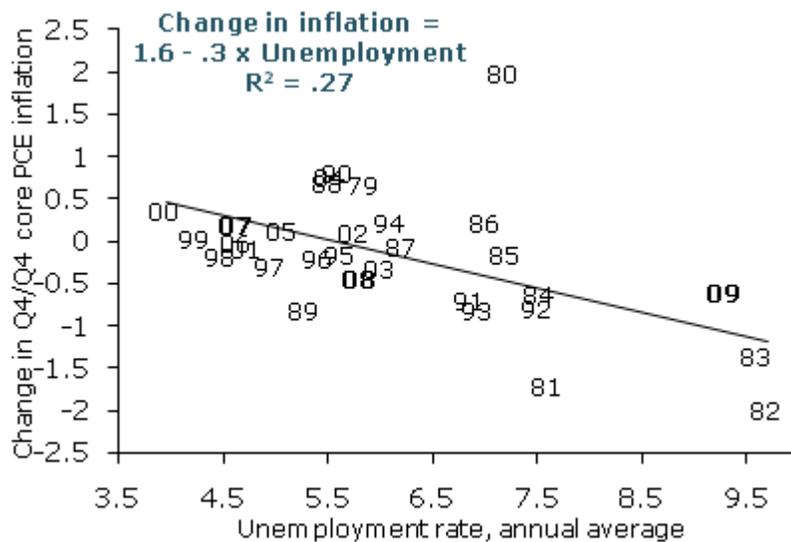
Over the next year or two, high unemployment, excess capacity, and the reduction of debt will keep price increases to a minimum. The law of supply and demand tells us that an excess of supply relative to demand tends to push down the price of goods. High unemployment reflects an excess of workers relative to available jobs. Not surprisingly, wage costs have been falling. Furthermore, the layoffs that led to the high jobless rate were a reaction by businesses to the dramatic fall in demand that developed during the financial crisis.

While it may be relatively obvious that, with multiple applicants for a job, employees will not be able to demand a higher wage, projecting inflation requires a better understanding of the relationship between unemployment and inflation. Since labor costs are a large part of the costs of most businesses, one would expect that unemployment would have a significant relationship to inflation.



The Phillips curve plots the historical relationship between annual unemployment and changes in year over year core inflation. The chart below illustrates this relationship over the last three decades. High unemployment is related to declines in inflation, while low unemployment is associated with increasing inflation. The current unemployment rate implies a 1% year-over-year decline in inflation. The unemployment rate explains about one quarter of the variation in inflation. The figure shows a clear negative relationship, as indicated by the downward-sloping regression line. For example, years with high unemployment also typically post declines in inflation (notably 1981 through 1983). In the past few years, the relationship between unemployment and inflation has been very close to that predicted by the historical data. (The observations for 2007, 2008, and 2009 are given in bold.)

### Unemployment and change in inflation



Most economists expect the unemployment rate to stay high for an extended period of time, suggesting that inflation could decline over that extended period of time. According to the historical relationship, unemployment would have to decline below 6% before this deflationary influence would abate.

The economy is not operating at full capacity. The physical corollary to high unemployment is idle manufacturing capacity, high real estate vacancy rates, and empty space in the transportation industry. Clearly, we have seen that fewer travelers, resulting in empty seats on planes, causes an airline to lower the price of seats to fill those planes. Also businesses have been actively idling capacity to lower the costs of operating excess capacity. Much of that capacity will reappear as activity picks up. Also the excess capacity, if debt financed, exerts pressure on the balance sheets of owners. However, the balance sheet effects can take longer to play out.



## **Debt Reduction**

Debt reduction can have a depressing effect on prices. Debt reduction will absorb cash flows that might otherwise go to spending and consumption. Debt reduction that occurs through foreclosure and transactions will tend to depress asset prices. Lower asset prices not only lowers purchasing power and credit capacity but also encourages new owners to lower prices to boost volume. For example, high debt levels in commercial real estate result in transactions and restructuring that reset the basis of the property. At the lower price the (new) owner can justify lower rents to increase occupancy. The process effectively lowers the break-even level, allowing the investor to make money at the lower cost basis.

## **Secular Forces**

In addition to these cyclical deflationary forces, there are a number of secular or long-term deflationary forces. The two most important are technology and trade. Technology has had a persistent deflationary effect on costs. Technological investments have increased productivity. This progression is historically evident in agriculture and manufacturing where the percentage of the work force and numbers of workers have trended down over time as these industries have improved productivity. Large technological advances over the last 20 years are being rapidly adopted, accelerating the pace of change and accentuating the deflationary forces.

Trade is deflationary to the United States because our trading partners and the large exporters of the world – China, Japan, and Germany – have pursued a mercantilist trade policy of maintaining a weaker currency in order to have trade balance. While Japan's trade surplus policy has been a function of their national concerns about having an inadequate base of natural resources (which also drove their expansion in World War II), China has used trade to boost their economic growth beyond what they could achieve domestically.

The effect of these (permanent) surpluses is deficits in the United States. First, since one country's surplus is another country's deficit, there must be a corresponding deficit for the trade surpluses of China, Japan, and Germany. Second, because of our reserve currency status and our size, the United States is ultimately the only country that can sustain trade deficits corresponding to these large surpluses.

The U.S. trade deficit has a deflationary effect because it lowers domestic demand relative to domestic supply. And excess supply in relation to demand is deflationary as discussed above. This situation develops because, on balance, purchases of foreign goods are equivalent to a portion of U.S. demand going overseas. Thus, domestic demand is lower than it would otherwise be, meaning that if supply – employees and productive capacity – previously met demand, after the trade deficit the U.S. is left with excess supply, also known as unemployment and excess capacity.



## High Government Debt

While these arguments over deflationary forces both short and long term may be compelling, the scale of government debt and spending overwhelms many people. Aren't these high levels of debt and government spending inflationary? And isn't there a risk that the government will use inflation to lessen the cost of this debt, or will they similarly pursue a policy of Dollar devaluation?

The basic argument is that there will be so many dollars chasing the same goods that those goods will experience inflation. When we examine the relationship between government debt and inflation in the developed world, we find that there is no correlation. Most recently Japan's debt levels have increased dramatically over the last 20 years, and yet they still have no inflation and are periodically flirting with deflation. Similarly, during the depression and World War II government spending and increased debt levels were not associated with inflation.

Furthermore, our financial system does not print dollars in the sense of more currency being physically printed. Rather credit is made available. Thus, the increase in the monetary base has the potential to increase credit. However, whether that increase in credit results in more credit cards chasing the same quantity of goods and resulting in higher prices depends on the banking system extending credit and potential borrowers taking advantage of the increased availability of credit. In Japan, for example, credit was available after the initial downturn, but businesses eschewed taking on more credit and reduced their indebtedness. There may be many consumers unable to get credit because of a poor credit history, while the qualified borrowers who are able to get credit choose to not borrow, since that served them well in the crisis. Under these conditions, on average, credit is available, but aggregate borrowing declines.

Importantly, credit growth is dependent not only on traditional banking but also on the market for asset backed securities. In order to meet the needs of investors and to accommodate borrowers, many assets have been used to back debt: car loans, homes, and credit cards are the most common. These markets offer liquidity and diversification for both banks and investors. However, even with a recovery in these markets, which is inevitable, it seems very unlikely that investors will accept the levels of leverage that existed before the crash. Clearly the asset values are not there, and perhaps more importantly, the capacity to pay back those debts was never there.

The dollar as a reserve currency has allowed the United States to grow credit beyond what we might otherwise be able to do. This preferential system allows the U.S. to operate very differently than a household or a country that does not have a reserve currency. Fundamentally, investors and other countries will accept our currency, if they have confidence that we are a good place to invest. Certainly it is possible to pursue policies that would undermine that confidence, but, so far, the economic policies are relatively similar to other governments.



PARAGON  
CAPITAL MANAGEMENT

## Notes and References

1. The Panic of 1907: Lessons Learned from the Market's Perfect Storm by Robert Bruner.
2. The source for the Philips Curve regression graph and the description of the findings is “Inflation: Mind the Gap” a Federal Reserve Bank of San Francisco Economic Letter by Zheng Liu and Glenn Rudebusch
3. The source for the discussion of trade as a deflationary force is globalization: n. the irrational fear that someone in China will take your job by Bruce C. N. Greenwald and Judd Kahn
4. The source for the comments on Japan include The Holy Grail of Macroeconomics: Lessons from Japan's Great Recession by Richard C. Koo