



Yanni Partners  
A Division of GBS Investment Consulting, LLC

# MEASURING UP

DELIVERING  
THE PROMISE

Volume 21 | Number 3 | Summer 2009

IN THIS  
ISSUE

Strategies to protect portfolios against the threat of inflation and deflation.

## The Threat of Inflation and Deflation

The severity of the current recession has sparked widespread uncertainty and speculation about the future of the global economy.

Investors and economists are deeply divided on the lasting impact of U.S. Federal Government stimulus measures. Some investors remain wary of deflation, which could result if the global economy falters rather than continuing on the path toward recovery. Others are convinced that the unprecedented U.S. Federal Government programs will spark runaway inflation in the coming years. Regardless of which argument ultimately proves to be correct, investors can act now to protect their portfolios against the threat of inflation and deflation.

In this version of *Measuring Up*, Yanni Partners, a Division of GBS Investment Consulting, LLC, explores the causes of inflation and deflation, examines the current inflation and deflation risks and introduces portfolio strategies that can help fiduciaries hedge these risks from their portfolios. We have discussed investments that help to fight inflation and deflation many times over the years, most notably in our 2006 research paper, *The Quest for Growth*. Current circumstances make this an opportune time to revisit these concepts.

### What is Inflation? Deflation?

Inflation and deflation are terms for a change in the price level of goods and services. When prices rise over time, it is called inflation; when prices fall, it is deflation. Inflation has historically been far more common than deflation, but both pose risks for investors. To understand these risks, investors must understand the general causes of both inflation and deflation and why each is a problem for portfolios and the economy.

Inflation typically occurs when there is more money chasing the same amount of goods and services. When there is more money in the overall economy, the money supply is larger and each consumer is willing and able to pay more for the same supply of goods. The combination of high economic growth and low interest rates can spark inflation if the growth in the money supply exceeds the growth in the output of goods and services.

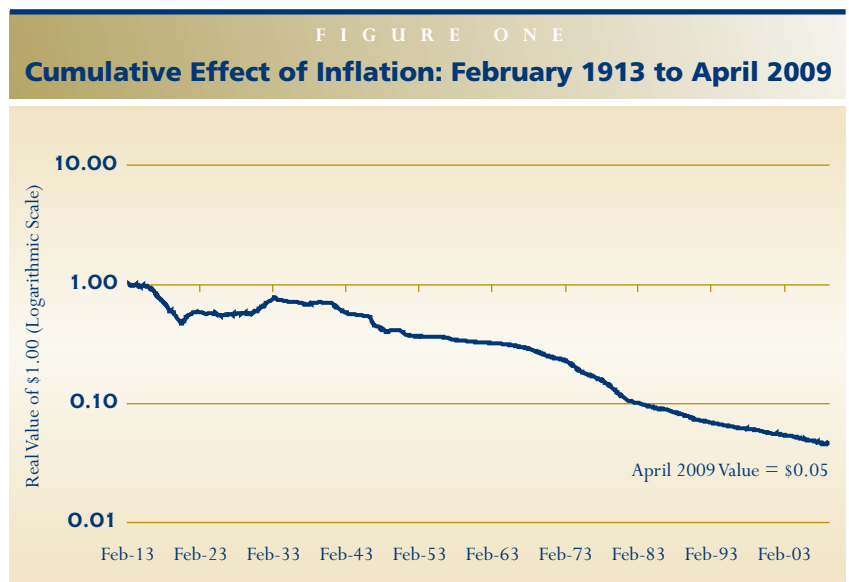
Inflation is a problem because it reduces the purchasing power of a dollar. *Figure One* shows how the value of \$1 has decreased since 1913 due to price changes. Prices have risen over time, and the purchasing power of a dollar declines each time prices increase. The purchasing power of the dollar has depreciated by a factor of 20 since 1913, as prices have risen by that amount. Investing in the capital markets has historically offset the falling purchasing power of a dollar.

High inflation encourages consumers to spend every dime today rather than saving or investing for the future. Consumers have to buy now before prices rise further. If high inflation is sustained over a long-term period, as it was in the U.S. during the 1970s and early 1980s, businesses and consumers will adapt their behavior to compensate for inflation. The consequences of this behavior can be highly detrimental.

Historically, deflation has been much less common and occurs when the amount of money in the overall economy drops severely over a given time period. Reactions to deflation are generally the opposite of inflation: Consumers and businesses have no incentive to spend today since prices will be lower tomorrow. Deflation poses a relentless problem for the economy since the value of assets will fall as prices fall. The problem is particularly acute for businesses or consumers that have debt. These entities owe a fixed amount, but the value of the assets they hold to repay that debt is falling. If unchecked, deflation can spiral downward and potentially ruin the economy. This happened most notably during the Great Depression.

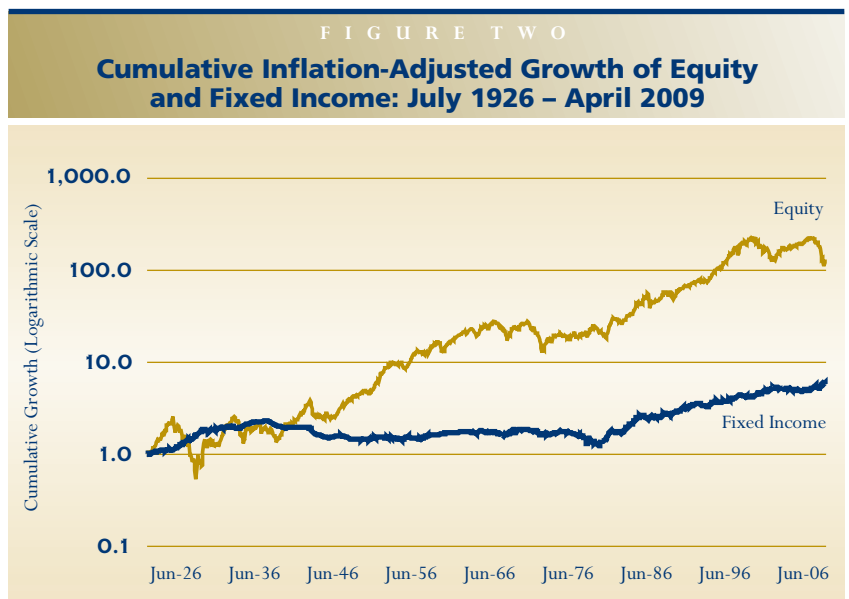
### What Causes Significant Changes in Prices?

Moderate inflation (between 1 and 3% per year) is a normal, healthy characteristic of a stable, growing economy. Periods of moderate inflation have historically posed little risk to investors, since both



Source: U.S. Bureau of Labor Statistics, Consumer Price Index

stocks and bonds are likely to generate positive real (inflation-adjusted) returns over long-term investment horizons (see *Figure Two*). The risk to investors is a significant and sustained change in prices: inflation above 4% or deflation over a period of several years. History has shown that periods of significant, sustained inflation and deflation are generally caused by policy errors.



Indices: Equity-FamaFrench U.S. Equity Series  
Fixed Income-Intermediate U.S. Treasuries

Errors in fiscal policy, generally set by the executive and legislative branches of the U.S. Federal Government, or monetary policy, generally set by a

FIGURE THREE  
**Episodes of Deflation and Inflation**

	ANNUALIZED RESULTS		
	Inflation (Deflation)	Equity	Fixed Income
<b>DEFLATION:</b> U.S. (Aug 29 - Mar 33)	-8.5%	-28.5%	14.6%
<b>DEFLATION:</b> Japan (Dec 00 - Dec 02)	-0.8%	-18.1%	4.2%
<b>INFLATION:</b> U.S. (Dec 67 - Dec 81)	7.5%	-1.2%	-1.6%

Notes: Equity and fixed-income returns are real (after inflation). Japan data in local currency.

central bank such as the Federal Reserve, have contributed to the most serious periods of price instability. During the 1930s, the Federal Reserve followed a passive approach to the Great Depression. Deflation took hold and the money supply shrank by one-third. Economic output fell by a similar amount. Critics, with the benefit of hindsight, contend that the Federal Reserve should have done more to stabilize and increase the money supply. If the amount of money available to purchase goods and services had been stable, prices would have likely remained more stable – and the damage done during the Great Depression would have been far less severe.

A modern example of policy error leading to deflation is the Bank of Japan's actions during the 1990s. With the country facing the aftermath of its 1980s "bubble economy," the Bank of Japan (BOJ) aggressively cut interest rates to stimulate Japan's economy and increase the money supply in the early 1990s. The BOJ's actions showed promise, as Japan's economy began showing signs of recovery in 1994. Unfortunately, the BOJ then raised interest rates to ward off the threat of inflation that often accompanies a strong economic recovery. The interest rate hike proved to be premature and sent Japan's economy back into a downward spiral.

Policy errors have led to periods of high inflation, as well. Between December 1967 and December 1981 prices rose 175% cumulatively, a rate of 7.5% per year. The Federal Reserve contributed to the

problem by allowing inflation to accelerate in the mistaken belief that there was a constant trade-off between inflation and unemployment. The Fed's belief, widely supported by academic literature at the time, was that higher inflation would be accompanied by lower unemployment. With memories of the Great Depression's 25% unemployment rate still fresh, the Fed believed this trade-off was acceptable. The results were disastrous. Inflation expectations became self-fulfilling; consumers expected to pay higher prices, and companies raised their prices to match expectations. By the early 1980s, the Federal Reserve under new Chairman Paul Volcker saw the error in its policies and acted quickly to bring inflation under control.

Capital market returns during these periods have been disappointing, highlighting the risks that inflation and deflation pose to investors (see *Figure Three*).

### **Are Recent Stimulus Measures Likely to Cause Inflation or Deflation?**

In short, it is much too early to know the lasting effects of U.S. Federal Government stimulus programs.

Lessons of the past, however, are impacting the recent actions taken by the Presidential Administration, the Federal Reserve and the Treasury Department. The U.S. Federal Government has collectively launched more new



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programs and a greater degree of economic stimulus in recent times than at any other time since the Great Depression. It is likely that the high degree of involvement has prevented a repeat of the economic conditions last seen in the 1930s, but the ultimate effect of all these policies remains unclear. For example, a meaningful portion of the money the Treasury loaned to banks under the original Troubled Asset Relief Program (TARP) has been repaid with interest. This money never actually made it into the hands of consumers (it was used to temporarily fortify the banks' balance sheets instead), so it is unlikely to have an inflationary impact.

The TARP program, of course, is but one in the long list of new policy initiatives and programs. And while it is easy to identify policy errors of the past, it is much more difficult to determine whether any of the new U.S. Federal Government programs will ultimately become mistakes. The current stimulatory environment carries more potential for policy errors. Given the sheer size of some new programs, any errors have the potential to result in significant price instability. The current risk of a policy error and the potential consequences of such an error highlight the importance of building protection against inflation and deflation into investment portfolios.

## **What Assets Protect Against Inflation and Deflation?**

Investors can purchase direct inflation protection by investing in Treasury Inflation Protected Securities (TIPS). TIPS are bonds issued by the U.S. Federal Government that are directly adjusted for inflation. TIPS also provide a degree of deflation protection, although nominal U.S. Treasury bonds are the best hedge against deflation.

Real assets have also historically protected investors against unexpected rises in the price level. Real estate and commodities have both performed well during periods of high inflation. Both asset classes are vulnerable to falling consumer prices, however, and the prices of real assets are likely to fall during periods of deflation.

## **How Should Investors Proceed Amid the Uncertainty of the Economy?**

All investors should start by analyzing the impact inflation or deflation is likely to have on their portfolios and organizational objectives. The nature of each portfolio and organization will determine whether inflationary or deflationary protection (or both) is most important. Investors should then determine which investments make the most sense in light of the current portfolio positioning. Yanni Partners' consultants are working directly with each client on a case-by-case basis to determine the most appropriate course of action in this uncertain environment.

Yanni Partners provides a full range of consulting services vital to the management of various portfolios. Our ultimate goal is to offer a basis for improved investment monitoring and performance.

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