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CAPITAL ADVISORS

When Markets Disagree: TIPS, Commodities, and Inflation

Executive Summary

If markets are efficient, can well developed and liquid markets reach opposite conclusions about the future direction and level of inflation? If markets discount the same information about the future of inflation, yet reach different conclusions, what is the possible cause of this apparent inefficiency and how long can it last?

In our January 2006 commentary we observed that the commodities market and U.S. Treasury Inflation Protected Securities (TIPS) market were sending very different signals about the future direction of inflation. At that time, commodity markets were in the midst of a bull market – for many monetarists this is an important leading indicator of inflation (more money chasing the same amount of goods leads to price inflation). At that time, the TIPS market was projecting relatively benign inflation rates. (See Perspectives: When Markets Disagree – January 27, 2006).

In our study we contrasted the rally in the price of gold with the low level of inflation projected by the TIPS market. We concluded that commodity markets would likely be better at forecasting inflation than the TIPS market. Since that time our conviction about this point has strengthened, as actual inflation has exceeded inflation rates predicted by TIPS breakevens. The question presented to us today is whether these inflation pricing disparities can be sustained, and if so, for how long.

The table below shows the change in TIPS breakevens (the Treasury market forecast for inflation), CPI, and commodities. Gold and the Goldman Sachs Commodities Index (GSCI) were the commodities referenced in our original study and they are included below for consistency:

Table 1: Changes since Original Study

	TIPS B/Es	Actual CPI YOY	Gold	GSCI
1/27/2006	2.50	3.4	$560	449
6/30/2008	2.53	5.0	$925	863
Change	0.03	1.6	$365	414
% Change	**1%**	**47%**	**65%**	**92%**

Since the time of our 2006 study, commodities have rallied sharply, inflation has risen, but TIPS breakevens have essentially been stable. The inflation forecast generated by the TIPS market is derived from the breakeven inflation rate between TIPS and nominal Treasuries. As readers will recall, the breakeven inflation rate is the difference between the real yields of TIPS and the nominal yield of a regular Treasury. If real yields on TIPS rise and the nominal yield of a regular Treasury does not, the breakeven narrows and so does the inflation forecast. If the real yields of TIPS were constant, but the nominal yield of a regular Treasury fell, the breakeven would also narrow and the inflation forecast would also fall. What if there were purely technical forces at work that have kept TIPS breakevens low and the Treasury market's inflation forecast wrong?

In the discussion that follows we will offer an update on our original study, and recommendations for policy makers and investors concerned with inflation. We will also offer a thesis that seeks to reconcile the apparent contradiction in Treasury and commodity market viewpoints on inflation. *In essence, we will offer that the supply and demand characteristics of the TIPS and nominal Treasury markets are at the root of the compressed TIPS breakevens and low Treasury market inflation signals.* Finally, we will highlight the opportunities that exist today for investors looking for ways to take advantage of the under priced inflation protection available in the TIPS market.

Discussion

Table 2, below, shows our original observations about TIPS inflation breakevens, CPI, Gold, and the Goldman Sachs Commodity Index. In January 2006 we observed commodities were providing better insight into the direction and scope of moves in inflation.

Table 2: Original Study

	TIPS B/Es	Actual CPI YOY	Gold	GSCI
7/1/2005	2.33	2.5	$427	391
1/27/2006	2.50	3.4	$560	449
Change	0.17	0.9	$133	58
% Change	**7%**	**36%**	**31%**	**15%**

Table 3, below, is particularly interesting: for the entire period beginning July 1, 2005 (the starting point of our original study) and ending June 30, 2008, the breakdown of the relationship between TIPS breakevens and actual CPI could not be clearer. Furthermore, the relationship between the actual increase in CPI for the period and the increase in commodity prices for the same time is also apparent.

Table 3: Changes over Entire Period

	TIPS B/Es	Actual CPI YOY	Gold	GSCI
7/1/2005	2.33	2.5	$427	391
6/30/2008	2.53	5.0	$925	863
Change	0.20	2.5	$498	472
% Change	**9%**	**100%**	**117%**	**121%**

This breakdown in the relationship between TIPS Breakevens, CPI and commodities prices have important conclusions both for policy makers and investors:

1. Investors still have an opportunity to purchase what is likely cheap inflation protection. TIPS breakevens continue to forecast very modest levels of inflation. As long as inflation remains above TIPS breakevens, TIPS are likely to do well for two possible reasons: breakevens finally expand to reflect more realistic inflation conditions, and/or the inflation accruals on TIPS provide an added source of return not discounted in the TIPS market. It should be noted that for the period July 1, 2005 through June 30th 2008 The Lehman Brothers Treasury Index returned 14.97%, while the Lehman Brothers TIPS Index returned 18.28%. *To the extent that commodity markets remain better leading indictors of inflation, today's high commodity prices suggest TIPS breakevens are still too low.*

2. Policy makers, particularly those at the Federal Reserve, should take these conclusions very seriously. Even a cursory review of FOMC minutes in recent years will find that Fed officials have frequently discounted headline CPI by taking solace from the low level of inflation projected by TIPS. They appear to have reasoned that the TIPS market allows for price discovery in a large and transparent marketplace – surely the inflation signal coming out of the TIPS market could not be wrong, could it?

It will be a long time before financial historians are able to fully answer the question posed above, but we believe we have enough market observations to hazard a thesis: supply and demand imbalances in the Treasury market are the source of this apparent inefficiency.

When we examine the contrasting supply characteristics of the TIPS and nominal Treasury markets in recent years, and consider those dynamics in the context of the flight to quality environment of this same period, it becomes clear that technical forces may indeed be the culprit behind this conundrum.

The table below shows the change in market value of both the nominal Treasury market and the TIPS market as measured by the respective Lehman Brothers benchmarks for those sectors.

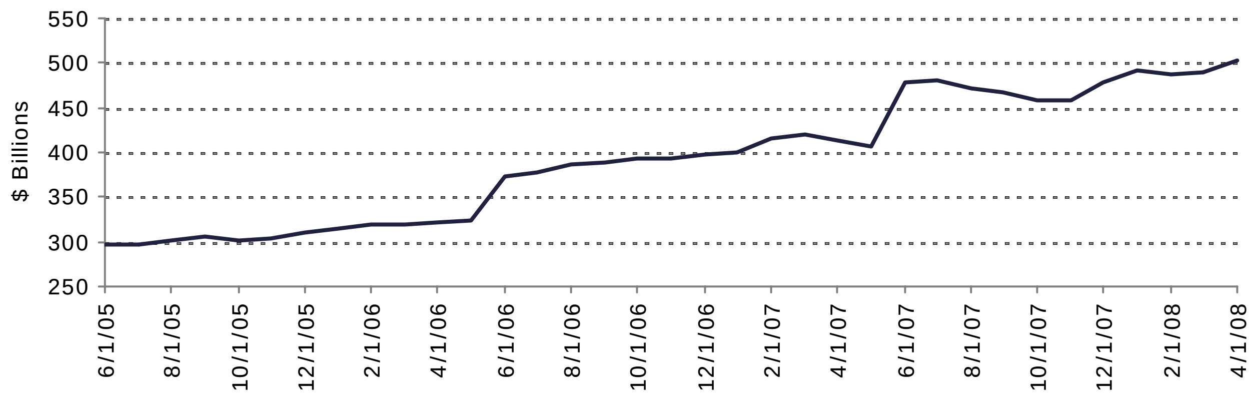
Table 4: Growth of U.S. Treasury and TIPS Markets ($Millions)

	U.S. Treasury Index MV	TIPS Index MV
7/1/2005	$2,074,330	$298,094
6/30/2008	$2,353,147	$471,868
Change	$278,817	$173,774
% Change	**13%**	**58%**

As the table shows, the growth in the TIPS market has surged over the period, while the growth in nominal Treasuries has been far more muted. In a hypothetical world where breakevens (and inflation forecasts) are influenced only by supply and demand, more TIPS would equate to higher real yields relative to nominal Treasury yields, and smaller breakevens.

What if at the same time there was an increased demand for the slower growing nominal Treasury market? As the chart below shows, purchases by China's central bank over the period of our study absorbed the vast majority of the new supply of nominal Treasuries.

Chinese Holdings of U.S. Treasuries



Other central banks were purchasers as well. When you combine the insatiable appetite of foreign central banks for nominal Treasuries with the desire of investors for Treasuries during the flight to quality environment of these times, the underlying argument of our thesis becomes clearer and more reasonable: TIPS breakevens, and the benign inflation forecast projected by the TIPS market, have been determined by market technicals relating to supply and demand of the different markets – not necessarily by an inflation outlook.

Conclusions

For patient investors with a long view, the TIPS market remains very inexpensively valued. While TIPS are well suited for foundations and endowment strategies, they are not particularly tax-efficient. As a result, private clients are generally advised to purchase these securities for their IRA's and other tax-sheltered investment vehicles. For private clients who seek to take advantage of today's inexpensively priced inflation protection in a more tax-efficient manner, it should be noted it is possible to combine municipal bonds with CPI Swaps to replicate the inflation protection of TIPS, but in a more tax-efficient manner. We will provide further updates on this concept to clients in future commentaries. Finally, policy makers concerned about inflation should acknowledge that all markets periodically experience times when supply and demand forces can cause distortions and the relationship between TIPS and nominal Treasury markets may be no different.

As a result, Fed officials would be well advised to place less reliance on TIPS as an inflation indicator and a broader reliance on a larger basket of indicators – all of whom will periodically experience their challenges.

And when will TIPS breakevens reflect today's higher inflation rates? If our thesis is correct, this will happen when the technical forces driving today's compressed breakevens abate. Two of the technical forces we have noted are driven by government policy decisions: The relative supply imbalance between TIPS and nominal Treasuries is influenced by the issuance preferences of the U.S. government. The foreign central bank purchases of U.S. Treasuries are influenced by the policy preferences of their governments. Finally, the flight to quality pressures that have influenced nominal Treasuries will abate in better times. Predicting when these forces will reverse course is tricky; acknowledging that inflation protection is cheap today is a more straightforward proposition.

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Data Source: Lehman®, Bloomberg®