

SKBA CAPITAL MANAGEMENT

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Lessons on TIPS

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Owning Treasury bonds in 2008 turned out to be a godsend as the 30-Year T-bond produced a 41% total return! No small favor. Most of the return was achieved during the financial crisis in the fourth quarter as investors fled to the safety of Treasury issues. In a 50/50 portfolio of long Treasury bonds and the S&P 500, the bond gain would have offset the horrendous -37% total return of the S&P 500 that year. Of course that same bond produced a negative -19% return through the first three quarters of 2009. Most other assets, growth and value stocks, small- and mid-cap stocks, international stocks, high-yield “junk” bonds, corporate bonds, and especially TIPS moved inversely to the Treasury market – plunging in 2008 as Treasuries soared – and surging in 2009 as Treasuries slumped.

We can all understand the safe-haven effect of owning Treasuries and the fact that this asset class is typically inversely correlated to stock returns in times of economic and financial distress. But then why did TIPS (Treasury Inflation Protection Securities) perform so poorly in the second half of 2008 when these have the same full faith and credit status of nominal Treasury bonds? What gives?

In this report we recap the performance of nominal and real yield Treasury bonds over the fifteen months from July 1, 2008 through September 30, 2009 as there are several lessons to be learned. As a starting point, remember that whereas nominal Treasury bonds have a fixed coupon and par value at maturity, with TIPS, the interest payments and par value at maturity rise (or accrete) every six months at the rate of CPI inflation over the prior six months. Now let’s quickly review the differences between the nominal and real Treasury bonds as shown in Figure 1 below:

Figure 1 - TIPS Versus Treasuries – Advantages of Each Benefits of TIPS

- Protects against unexpected price inflation in the Urban CPI.
- Higher potential returns to TIPS as investors systematically underestimate actual versus expected price inflation.
- Better matches asset returns with the growth in pension liabilities due to cost inflation in wages and benefits.
- Real yields are “normally” less volatile than nominal Treasury yields.

Advantage of Nominal Treasury Bonds

- Interest payments and principal payment at maturity are fixed and known.
- In periods of financial distress, nominal T-bonds better diversify stock market risk than TIPS.
- Treasuries are more liquid investments than TIPS.
- In sustained deflation, Treasury bonds outperform TIPS.

Let's further explain the advantages of each as highlighted in Figure 1 in the next few pages.

If we examine the two consecutive periods, six months ended December 31, 2008 and nine months ended September 30, 2009, we can see the near mirror image of performance characteristics between TIPS and Treasuries as shown below in Figure 2 using Barclays Capital indexes of TIPS, Intermediate Treasuries and Long-Term Treasuries:

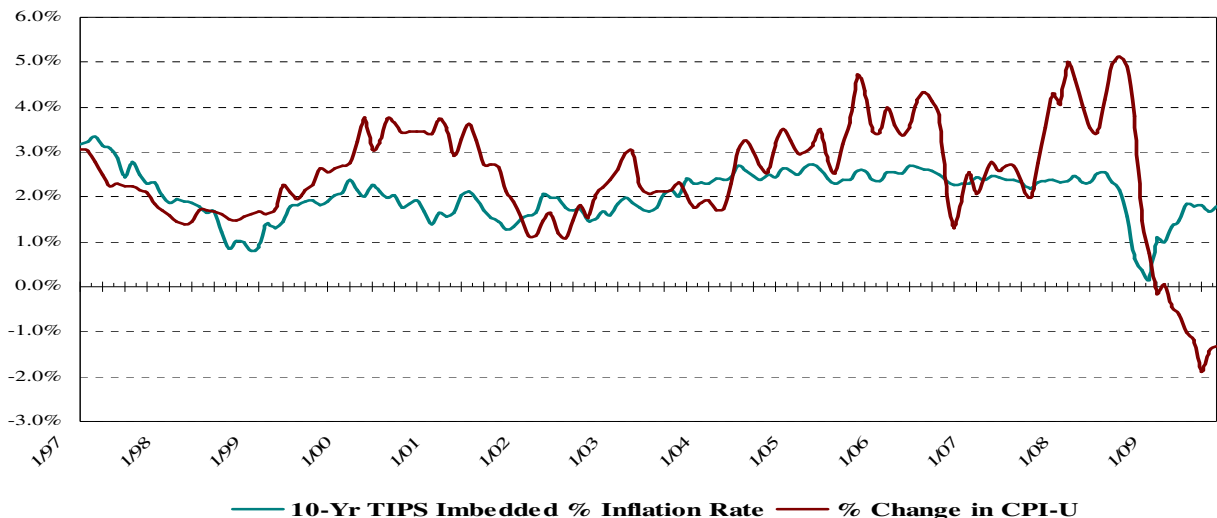
Figure 2 - % Change or Total Return	Barclays			
	CPI-U	Barclays TIPS	Intermediate Treasury	Barclays Long-Term Treasury
June to December 31, 2008	-2.5%	-6.9%	8.8%	22.1%
Dec 08 to September 30, 2009	2.0%	9.5%	-0.8%	-8.0%

Since Treasury bond payments are fixed and known and TIPS payments rise (or fall!) with the Urban CPI, the unprecedented (post WWII) -2.5% decline in the CPI in the second half of 2008 was the primary undoing of the TIPS market, helping produce a -6.9% total return in that period, while long-term Treasuries soared +22.1%. Conversely, as both the CPI and inflation expectations rose in 2009, the Barclays TIPS index gained 9.5% versus the -8.0% return of long Treasuries. So what lessons can be learned from the TIPS market and these time period experiences?

Lesson #1 – Historically, investors have systematically underestimated the actual inflation rate in the CPI-U.

One can see this phenomenon in Figure 3 below. Since the inception of TIPS in the U.S. in 1997 to the beginning of the financial crisis in August 2008, the CPI-U rose at an average annual rate of 2.8%, 0.7% higher than the average expected rate of inflation of 2.1% (as measured by the difference between the nominal yield to maturity on the 10-year T-bond and the real yield on 10-year TIPS). The reason for this is that nominal Treasuries have uses that are not related to ownership based on inflation expectations. Central Banks own Treasury issues as part of their exercise of monetary policy and exchange rate management, financial institutions and investment managers use them to manage duration risk of mortgage-backed portfolios, and corporations to manage asset and liability duration matching in pension funds. These phenomena create a long-term and lasting advantage for TIPS over nominal Treasury bonds.

Figure 3 - Annual CPI-U % Change vs Imbedded Inflation Expectations



Even if one includes the 14 month period from August 2008 through September 2009 in which the actual inflation rate turned negative, the long-term average annual increase in the CPI-U over expected inflation still amounts to a 0.4% advantage for TIPS. In our view, the experience in the second half of 2008 should turn out to be the anomaly not the norm for the future of TIPS versus Treasuries.

Figure 4

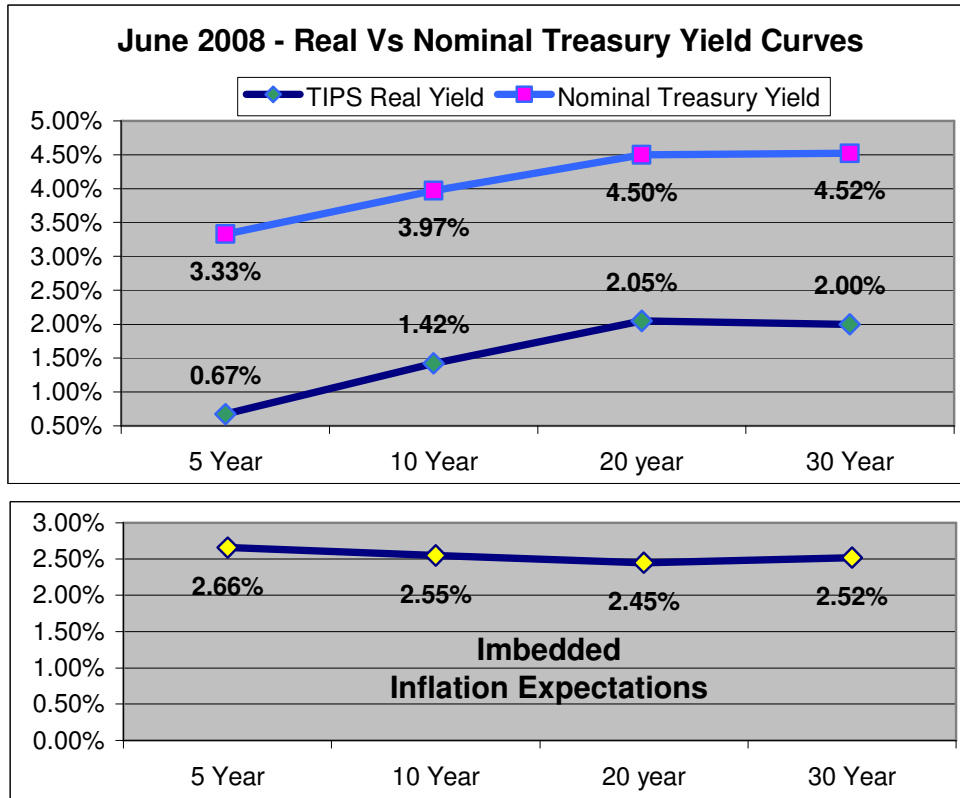
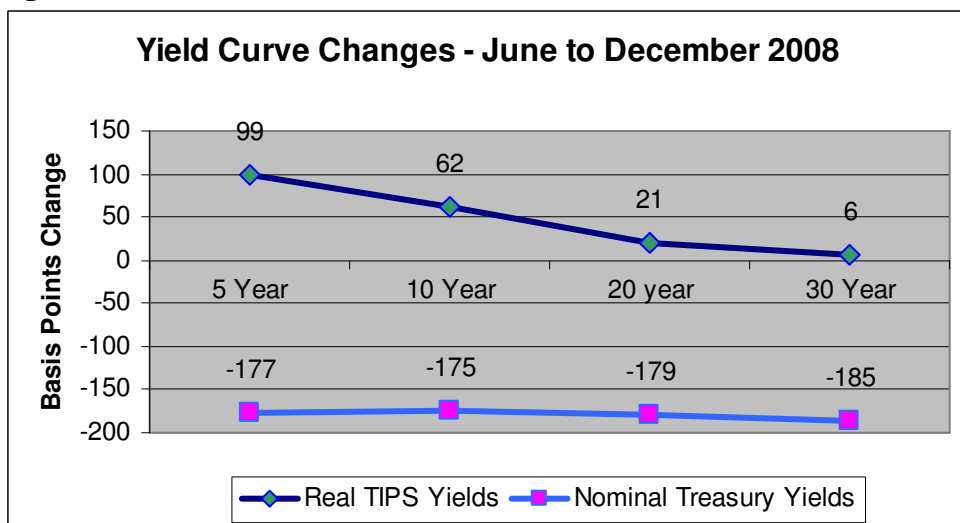


Figure 4 illustrates where the markets stood in June of 2008 along the yield curve from 5 to 30-years. Inflation expectations as shown in the bottom panel were relatively flat at 2.5%-2.7% per year. These are, by the way, quite reasonable long-term expectations.

In a more normal recessionary period, one would expect that both inflation expectations and real yields would decline. The latter would come as a result of the decline in the real return on investment that comes as corporate returns on equity fall with the decline in the economy and corporate profits. Yet this did not happen in 2008.

In fact, from the end of June to the end of 2008, Figure 5 highlights the dramatic reduction in nominal bond yields, which came with rising real yields on TIPS! While this made no theoretical sense, it still happened.

Figure 5



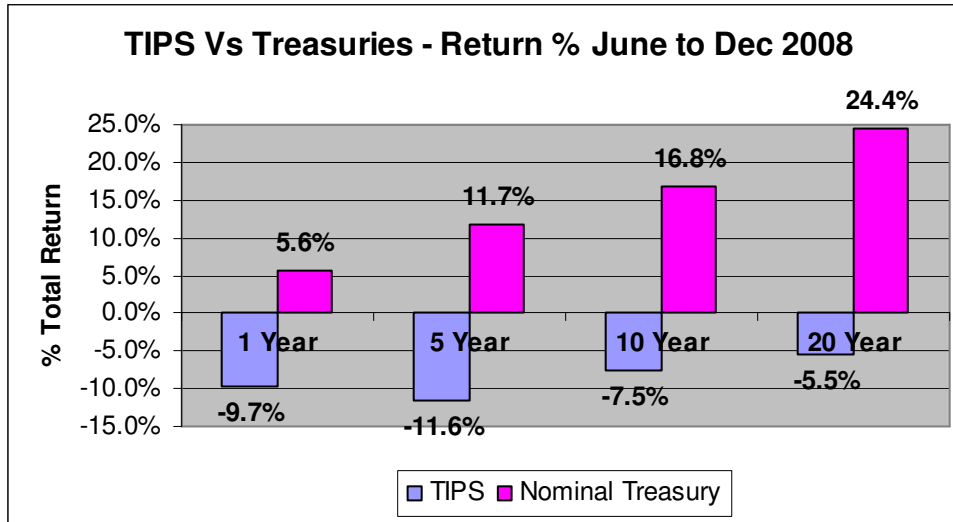
The nearly parallel decline in nominal Treasury yields of about -180 basis points was accompanied by a 99 basis point rise in the real yield on 5-year TIPS.

Certainly the actual rate of inflation fell -2.5% during this period, and investor fears about persistent deflation gripped the market, temporarily driving real

yields higher to offset this perceived deflation risk. Figure 6 confirms how poorly TIPS performed in environments in which actual inflation and inflation expectations plunged. We matched up actual TIPS and Treasury securities with nearby maturities and watched how they performed over time in moving toward 1-, 5-, 10- and 20-year maturity points on the yield curve. Contrary to what one might otherwise have expected, the shortest maturity TIPS performed the worst, leading to Lesson #2.

Lesson #2 – Since TIPS issues are impacted by the rise (or fall in this case) in the CPI on PAR value, surprises in actual inflation changes have a greater effect on the returns of shorter maturity TIPS than on longer maturity issues.

Figure 6



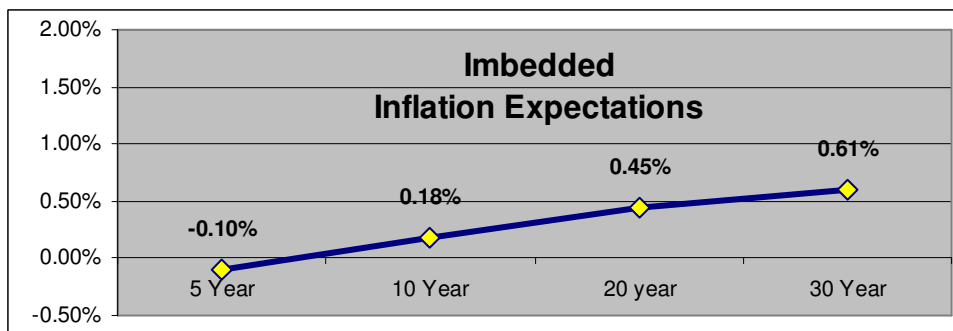
The effect of the percentage decline in adjusted PAR values of all TIPS was magnified in the returns at the short end of the yield curve. An effect of this magnitude had never been seen before. The 1- and 5-year issues plunged -9.7% and -11.7%, respectively, over this 6-month period.

Since the stock market plunged in the second half of 2008, Figure 5 also highlights Lesson #3. 20-year Treasuries returned +24% in the 6-months ended December 31, 2008 compared to the -5.5% total return on 20-year TIPS. Recession environments often produce inversely correlated stock and bond returns.

Lesson #3 – Nominal Treasury bonds better diversify short-term stock market volatility than TIPS. [TIPS, however, better match the rise in long-term benefit costs than T-bonds.]

The panic of 2008 created extraordinary values in many non-Treasury bond markets, TIPS included. After the second half plunge in nominal Treasury rates, Figure 7 demonstrates how low expectations for future inflation had become (again using the difference between nominal and real yields as of December 31, 2008).

Figure 7 – December 31, 2008



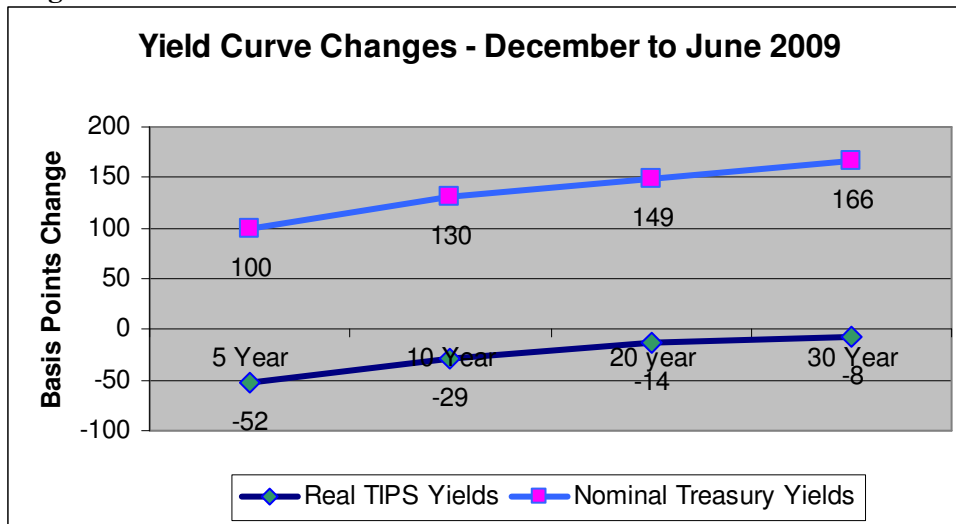
The chart shows that for the next 5 years, investors were betting that the inflation rate would be -0.1% annually and only 0.2% per year for the next 10 years! Any votes out there that this is truly likely?

One would have to describe this environment of fear as extraordinarily unlikely. The result was like shootin' fish in a barrel as the market offered investors a free option to buy protection against almost any level of future inflation greater than 0%! One should expect real yields to fall, inflation expectations to rise, or both from these levels, leading to Lesson #4. We did a lot of shooting in client bond portfolios in buying TIPS in and around the months that this condition existed.

Lesson #4 – When you're given the opportunity to shoot fish in a barrel – SHOOT! When inflation expectations are low, TIPS are likely to be winners versus nominal Treasury bonds.

So what happened in the next six months? Figures 8 and 9 tell the story.

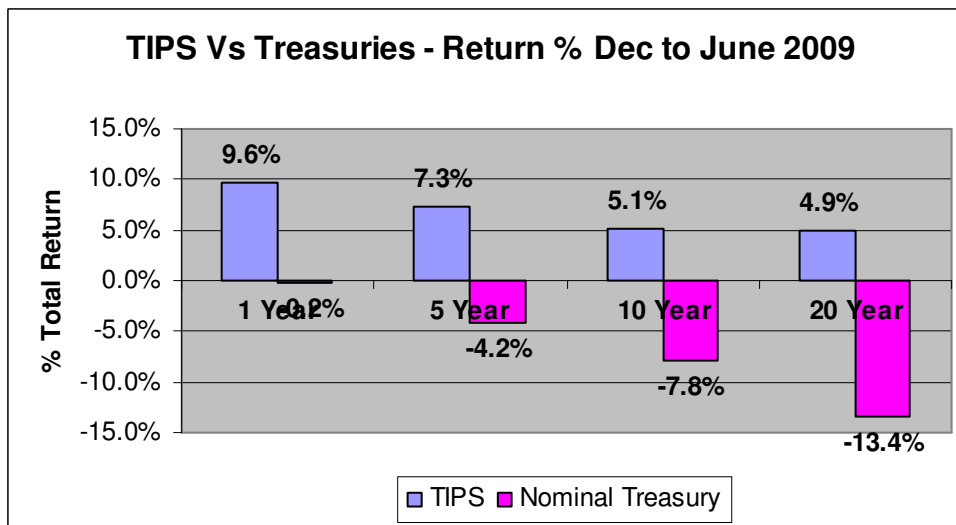
Figure 8



Subsequently, real yields fell across the curve while nominal yields rose dramatically. Not only that, but since the actual change in the CPI in 2009 has been positive, not negative as the market feared, the shorter maturity TIPS performed the best (Figure 9), taking us back to Lesson #2.

Nominal Treasury returns? Darn ugly.

Figure 9



Note that the short end of the Treasury curve did not turn negative as the Fed pegged short rates at near 0%, while long rates rose 166 basis points, producing the -13.4% negative total return for the 20-year issue.

In returning to Figure 1, we get Lesson #5:

Lesson #5 – Despite the general perception that inflation has disappeared, inflation is NOT gone, and the CPI-U rose 2% during the first nine months of 2009.

Inflation expectations imbedded in the 10-year Treasuries and TIPS are currently at about 2% annual rate, still below the likely long-term level. It all depends upon what economic outlook unfolds over the next two years. Figure 10 captures these options.

Figure 10 – SKBA U.S. Economic Scenarios

2-Year Outlook	Estimated Return Outlook			
	Inflation	Stocks	TIPS	T-Bonds
Booming (0% Likely)	5.0%	Happy Days Again!	<i>Best Relative Return</i>	<i>Really Ugly</i>
Stagflation (40% Chance)	3.5%	Not great	Best Total Return	Darn Ugly
Historical Norm (45% Prob)	2.5%	Super	Just Better than T-Bonds	Just Ugly
Perfection Again (Ain't Happenin'!)	1.5%	<i>Boom Time Again</i>	Couldn't Be Worse!	Not Good
Recession (<1 in 6 Odds)	-0.5%	Not Good, But not So Ugly	Not as bad as 2008	<i>Bond Heaven</i>

Our belief is that even if we were to head back into the “double-dip” recession, the performance of TIPS relative to Treasuries would not repeat the horrible relative performance of 2008. Investors realize the mistake they made in pricing 0% inflation into TIPS. We believe that the recession is finally behind us.

Our highest probability is placed on an economic recovery with 3-4% real GDP growth, still subpar compared to historical standards. While TIPS should perform better than T-bonds in this environment, the rise in real interest rates is made up of a combination of rising inflation expectations and real interest rates. The best

environment for TIPS would be Stagflation, in which real yields stay relativey depressed or even fall, while the inflation rate and inflation expectations rise.

Figure 11 below summarizes our conclusions about the current characteristics of TIPS. In our opinion, TIPS are still attractively-valued relative to nominal Treasury bonds.

Figure 11 – Conclusions about TIPS – Valuable But No Panacea

- **10-Year TIPS currently discount only 2% annual rate of CPI inflation. Stagflation is good for TIPS.**
- **Unlikely to see a recurrence of the rise in real interest rates even if return to recession.**
- **Real yields are normally less volatile than nominal Treasury yields.**
- **TIPS better match asset returns with the growth in pension liabilities due to cost inflation in wages and benefits.**
- **BUT, short-term maturity TIPS returns are highly sensitive to actual changes in the CPI.**
- **Long-term TIPS returns are more sensitive to the changes in inflation expectations.**

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