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Market Overview: US Fixed Income

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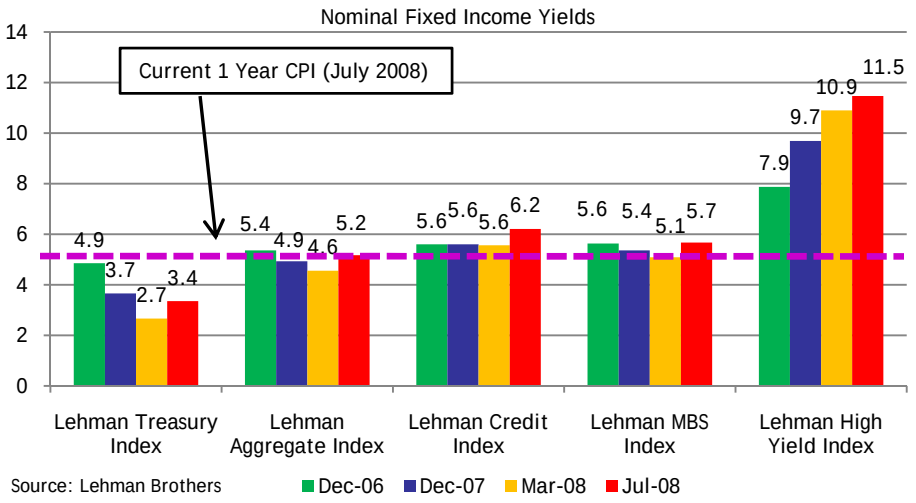
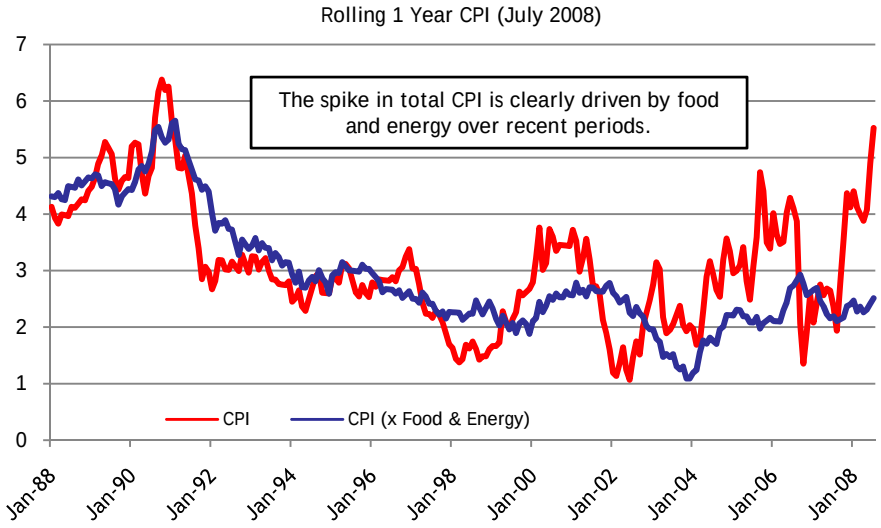
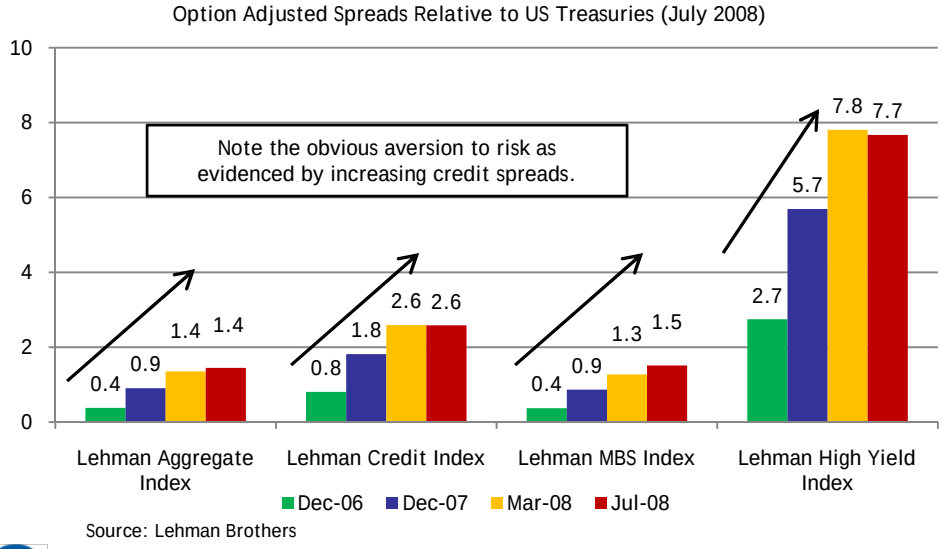
Overview of Current Market Conditions

- Fixed income markets over recent periods are best defined by a flight to quality in the face of economic uncertainty and an associated aversion to taking risk.
  - *Treasury yields are down substantially.*
  - *Risk premiums have expanded for corporate, mortgage backed, and high yield bonds.*
- Inflation could arguably threaten real returns for most fixed income investments, as CPI is now as high as nominal yields for most fixed income investments.
- Fortunately though, it appears now may be an opportune time for investors to embrace credit risk.
- Inflation should likely trend lower from current levels, but not necessarily as low as current market expectations.





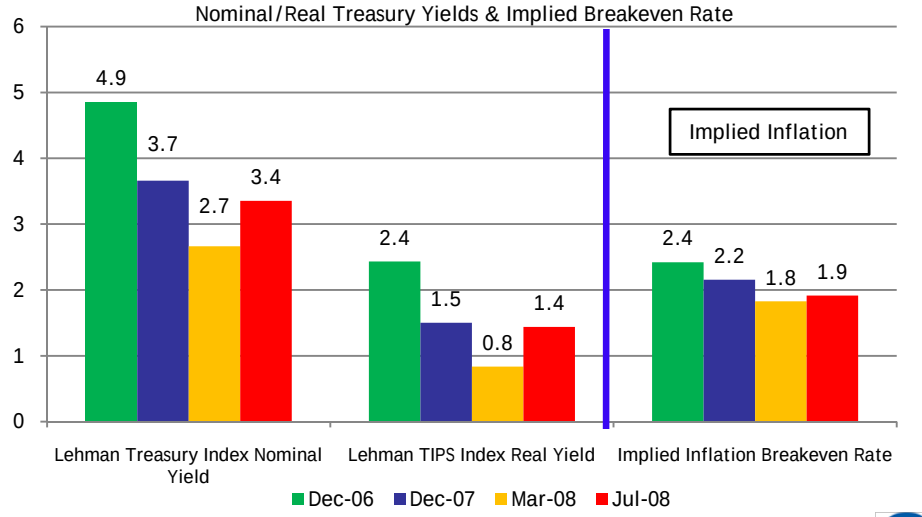
Source: Bureau of Labor Statistics; Freelunch.com



Source: Lehman Brothers

Risk Free Bonds: Nominal vs. Inflation Protected

- One of the most puzzling aspects of fixed income markets is the implied inflation expectation, which is derived by subtracting real TIPs yields from nominal Treasury yields.
- This is interesting because while inflation has been spiking over recent periods, inflationary expectations have been falling.
- Given current bond prices, the market expects inflation to be around, or slightly above, 2% over the next 10 years.
- This has implications for the attractiveness of TIPs relative to nominal Treasuries.
- If an investor purchased a 10 year TIP at current rates, inflation would only have to exceed 2.2% over the next ten years for the TIP to outperform a nominal Treasury.
- On the other hand, if inflation were less than 2.2%, the TIP would underperform the nominal Treasury.



Source: Lehman Brothers; Wurts & Associates

Comparison of Nominal vs. Real US Treasury Yields (August 15, 2008)

	5 Years	10 Years	20 Years
Treasury Yield	3.18	3.91	4.58
Treasury Inflation Protected (TIP) Yield	1.18	1.72	2.19
Implied Inflation Breakeven Rate	**2.00**	**2.19**	**2.39**

Source: US Federal Reserve; Wurts & Associates

- A snapshot of Treasury markets reveals very low expectations for future inflation, ranging from only 2.0%-2.2% over the next 5 to 10 years.
- Interestingly, if you examine historic CPI measures, these rates of inflation have seldom been seen over rolling 5 & 10 year periods.

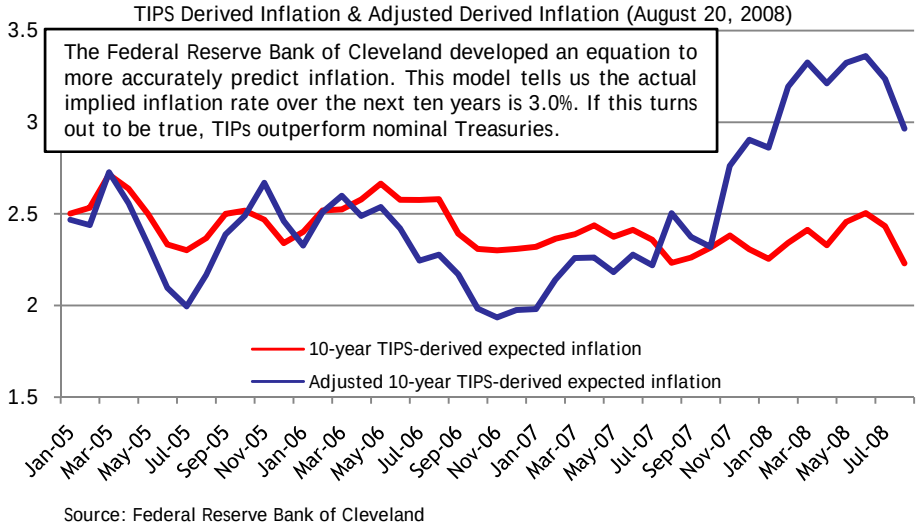
Historic Inflation Data (July 2008)

	Average Rolling Value	% of Rolling Periods < 2.2%	% of Rolling Periods > 2.2%
Rolling 10 Year Periods			
CPI (since 1947)	4.0	**18%**	82%
CPI x-F&E (since 1957)	4.5	**7%**	93%
	Average Rolling Value	% of Rolling Periods < 2.0%	% of Rolling Periods > 2.0%
Rolling 5 Year Periods			
CPI (since 1947)	3.8	**20%**	80%
CPI x-F&E (since 1957)	4.3	**8%**	92%

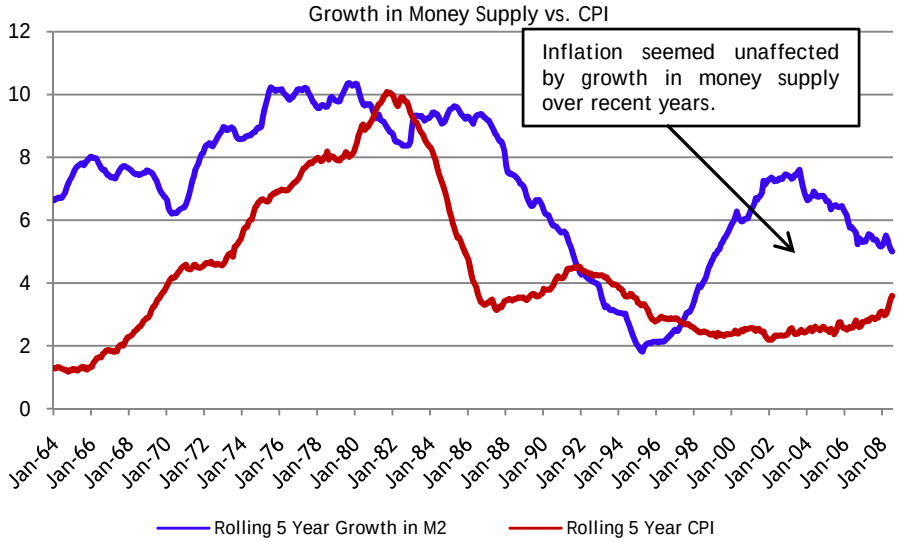
Source: Bureau of Labor Statistic; Freelunch.com; Wurts & Associates

Risk Free Bonds: Nominal vs. Inflation Protected *(Cont'd)*

- Economic theory tells us that growth in money supply and inflation go hand in hand; evidence supports this.
- Economic theory also tells us that worker productivity will offset inflation; i.e., as workers become more productive, wage pressures are lowered. Evidence supports this as well.
- Therefore, we can see over recent years that money supply has grown substantially without the associated rise in inflation. This is because worker productivity rose, offsetting inflationary pressures.
- Given declining worker productivity and huge influxes of liquidity to stimulate the economy, a resurgence in inflation seems a logical conclusion.



Source: Federal Reserve Bank of Cleveland



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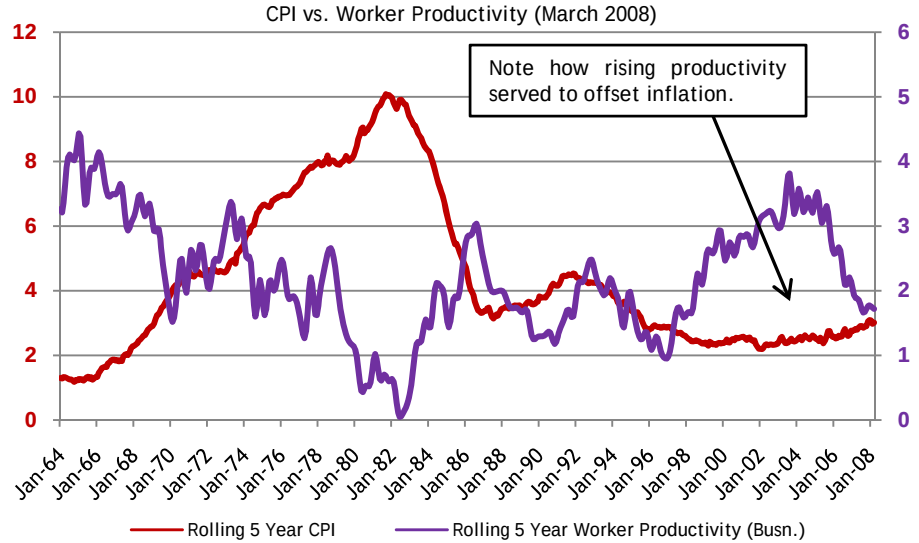
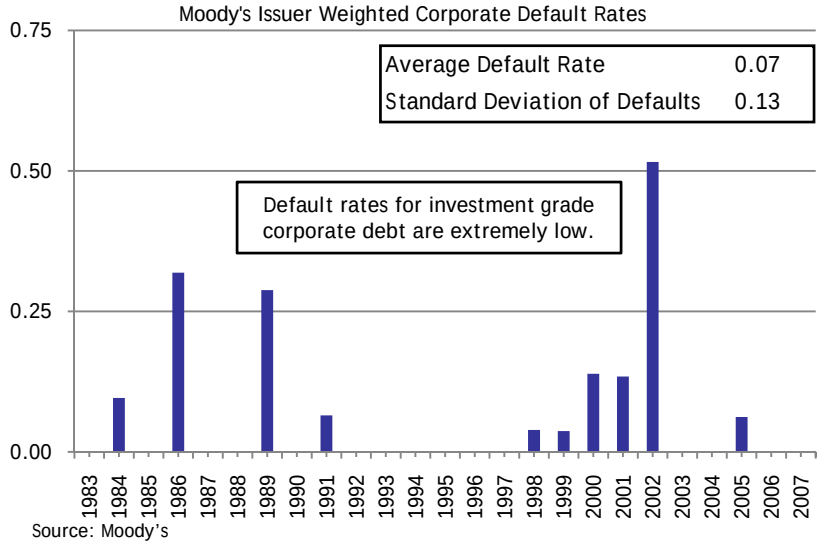


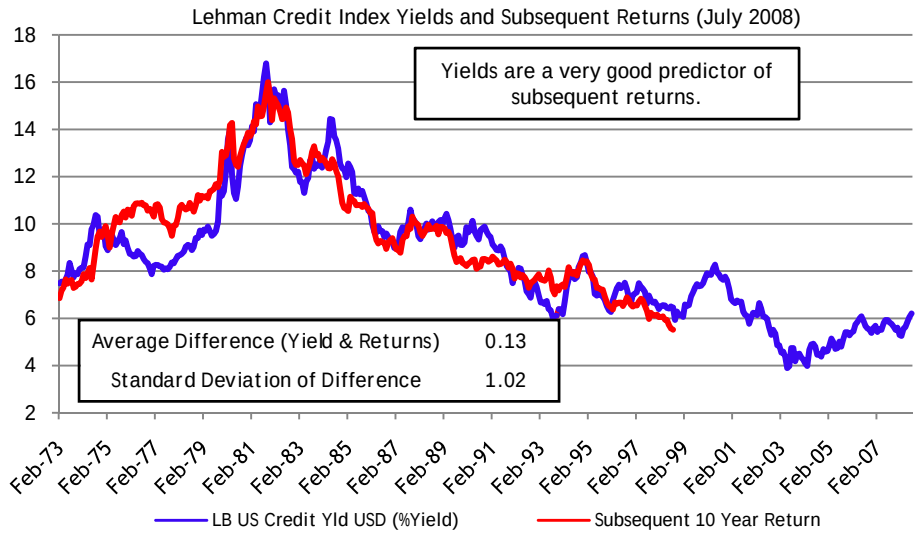
Source: Bureau of Labor Statistics; Freelunch.com; Wurts & Associates

Corporate Credit Risk

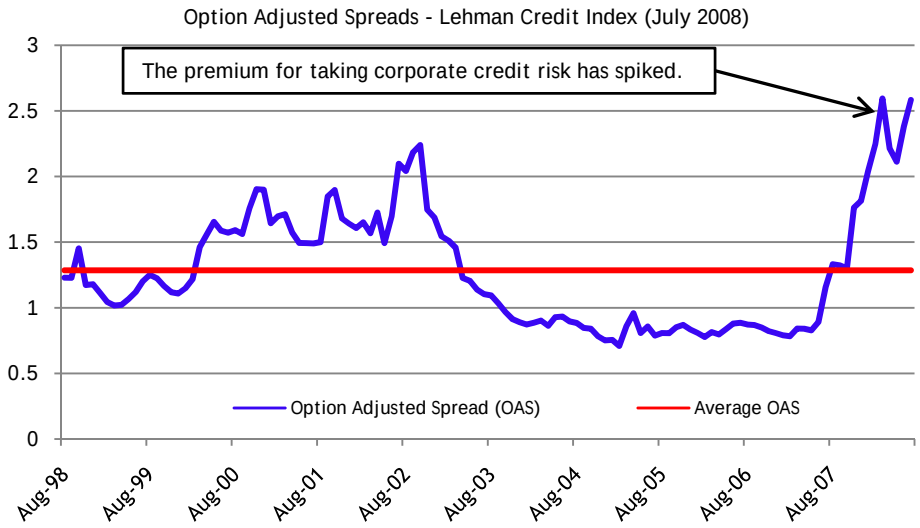
- The combination of the US economic slowdown and credit crisis has led investors to shy away from all types of credit risk.
- Corporate investment grade bonds are no exception to this trend.
- Over time we know that beginning yields for the Lehman Credit index strongly predict subsequent 10 year returns, and that default rates for these types of bonds is very low.
- Although the economy is likely to weaken, potentially causing defaults, we expect investment grade corporate bonds to outperform Treasuries by at least 2%, annualized, over the next ten years.



Source: Moody's



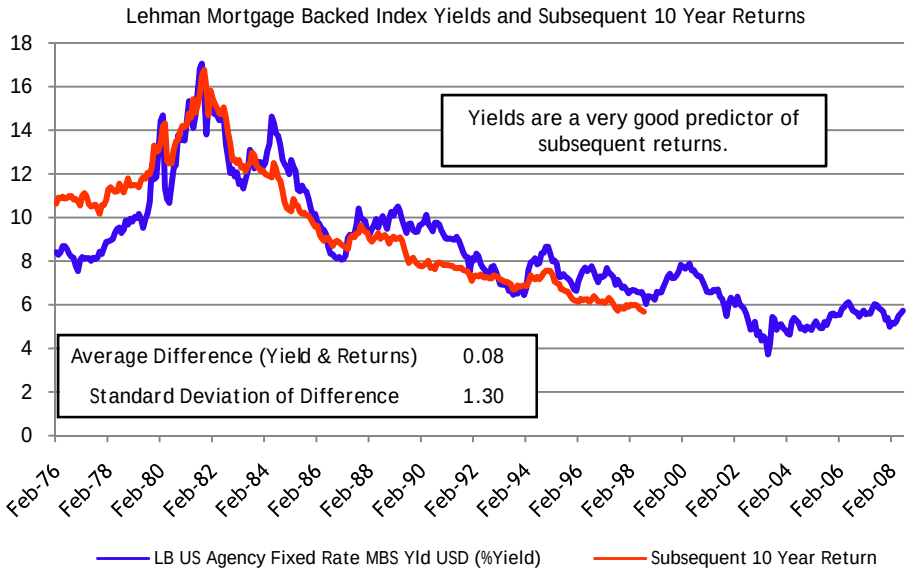
Source: Ibbotson; Wurts & Associates



Source: Lehman Brothers; Wurts & Associates

Mortgage Bonds

- The subprime lending crisis began a broad trend amongst investors to avoid mortgage credit risk.
- Recent concerns over the potential failure of government sponsored mortgage agencies (i.e., Freddie Mac) only served to bolster investors' risk aversion to mortgage securities.
- The Lehman Mortgage Backed Securities (MBS) index consists of government agency debt: GNMA, FNMA, FHLMC.
- The likelihood of these institutions being allowed to fail is extremely small due to the potential long term impact on the US economy.
- Equity shareholders will likely bear the brunt of any insolvency, as opposed to bond holders. This is because the government needs to ensure ample access to mortgages while keeping rates as low as possible.
- Therefore it seems an opportune time to invest in mortgage backed securities given the implicit government support, especially considering the yield premium over Treasuries.
- Given current yields, we expect the Lehman MBS index to outperform Treasuries by about 2%, annualized, over the next ten years.



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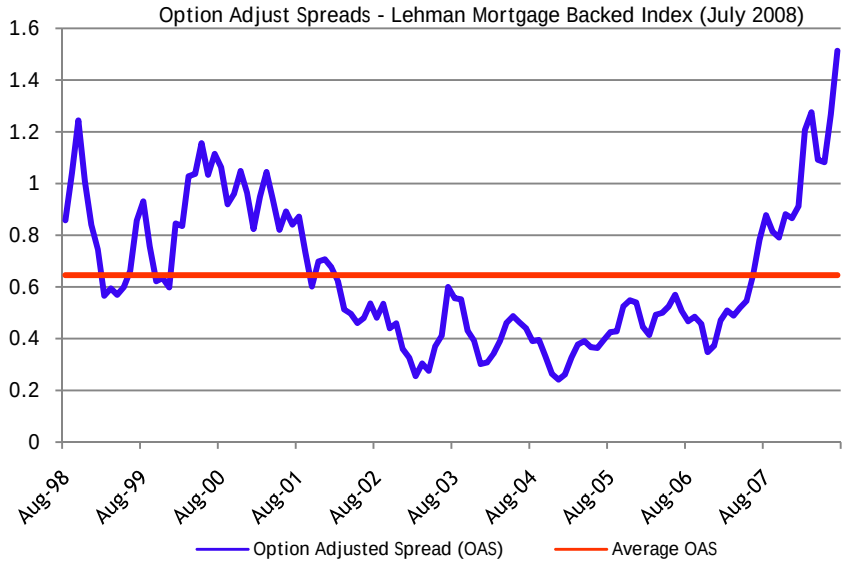
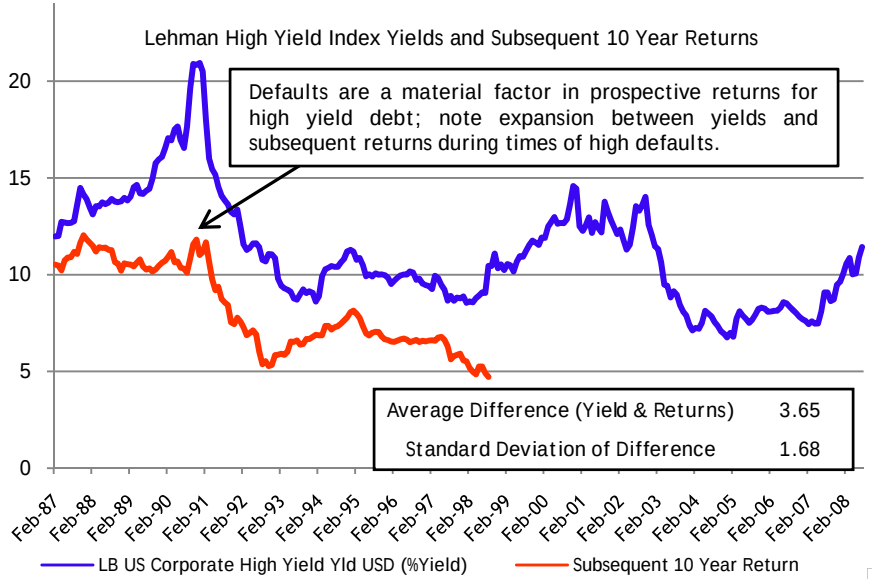


Source: Lehman Brothers; Wurts & Associates

High Yield Bonds

- The current environment for high yield bonds is less clear than other credit markets. This is because of the heavy impact of defaults on returns.
- Credit spreads indicate a resurgence in defaults is expected.
- Some simple math illustrates the potential long term return premium over Treasuries from this point going forward.

Projected 10 Average Year Default Rates	Projected 10 Year Annual Excess Return Over Treasuries
Defaults below Average (3%)	4.7%
Defaults at Average (4.4%)	3.3%
Defaults above Average (6%)	**1.7%**
Defaults at Peak Rates (8%)	-0.3%



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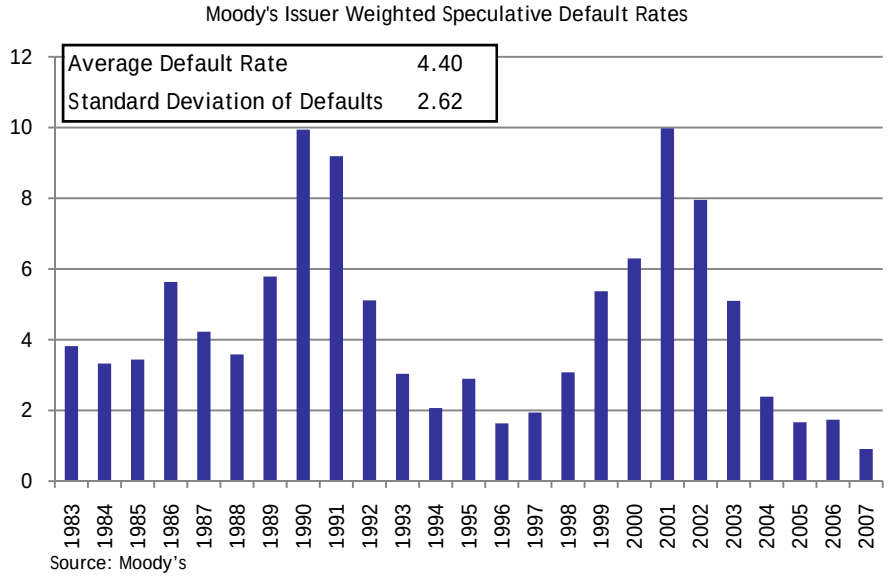

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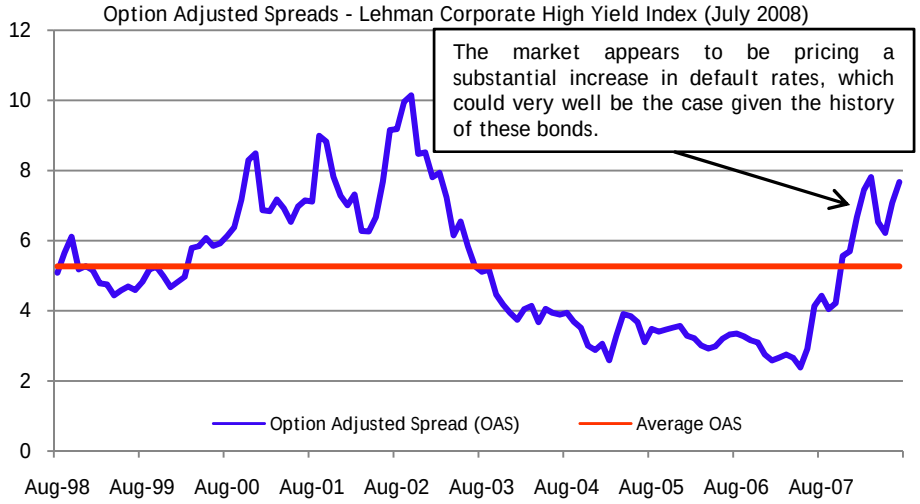

Source: Lehman Brothers; Wurts & Associates

Conclusions & Prospective Returns

- US Treasuries appear to be the most expensive of all domestic fixed income opportunities. This is expected during times of economic uncertainty as investors flock to safety.
- US TIPs appear for more attractive than nominal Treasuries over the next ten years. This is because inflation will likely be higher than currently expected by market participants. Presumably near term CPI expectations are being carried too far into the future as a result of falling energy prices.
- Corporate and mortgage credit risk seem appropriately compensated given current valuations.
- High yield spreads could very well expand as the economy weakens, but still offer a modest premium over Treasuries.
- Real interest rates should increase slightly from current levels as the economy strengthens.
- <u>Conclusions based on a ten year investment horizon:</u>
    - Shift to TIPs over Treasuries for risk free bond exposures *(asset only ignores actuarial/liability considerations)*
    - Overweight corporate credit and mortgage exposures
    - Consider high yield debt down the road; not too compelling at current rates.

10 Year Expectations - Based on July Index Yields *(assumes slight increase in interest rates)*	Annualized **Real** Return (no fees)	Annualized **Nominal** Return (no fees)
Lehman US Treasury Index	0.2	3.2
Lehman US TIPs Index	1.2	4.2
Lehman Aggregate Index	1.9	4.9
Lehman MBS Index	2.4	5.4
Lehman Credit Index	2.9	5.9
Lehman High Yield Index	3.3	6.3
Inflation	3.0	-