Steeper My Curve To Thee

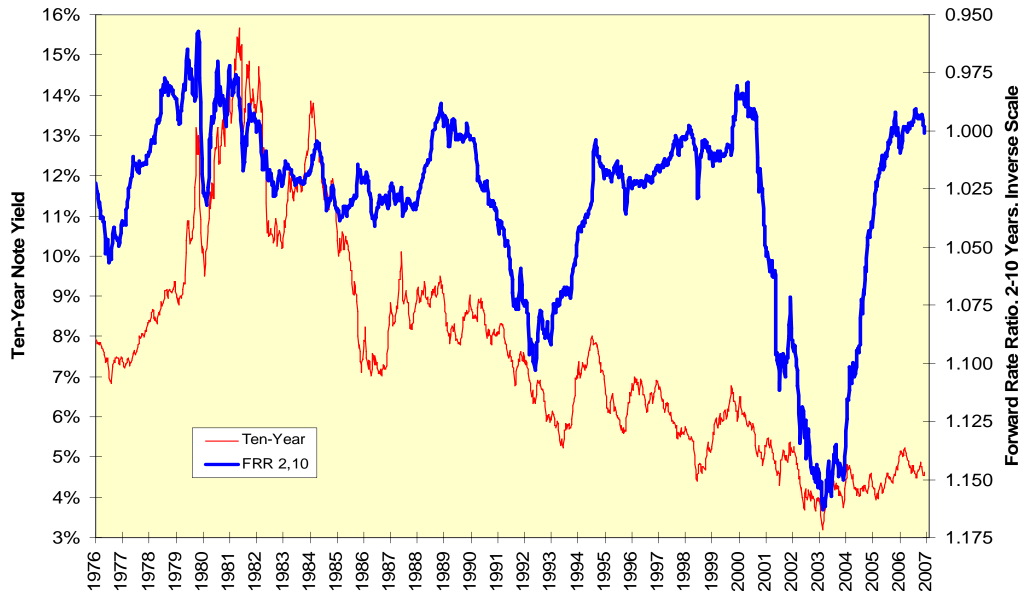
Richard Fariña entitled a 1966 novel *Been Down So Long It Looks Like Up To Me*. He died in a motorcycle two days after it was published, so we have no idea of his views on yield curve inversions, but given the writer's depressive outlook, he probably would have been drawn to the inverted yield curve's negative connotations.

He was a writer, not an economist or a market analyst; we have had to excuse his erroneous assertion. As early as December 2005, I wrote that a yield curve inversion was both imminent and would not derail what proved to be a persistently strong economy. If I may summarize, the Federal Reserve can set the short-end of the yield curve, but the market sets the long end. So long as the market believed, correctly, inflation was not going to accelerate and currency volatility was going to remain low, the long end of the yield curve would not rise.

Pedal Off The Metal

Various markets interpreted the FOMC's new statement of bias last week as saying they were willing to risk inflation, and they rallied accordingly as noted here last August. The yield curve, as measured by the forward rate ratio between two and ten years (the rate at which we can lock in borrowing for eight years starting two years from now, divided by the ten-year rate itself) steepened from .99682 last Monday to 1.00042 last Friday. Any number over 1.00 indicates a positively sloped yield curve.

More critically, the yield on the ten-year note itself rose from a low of 4.536% following the FOMC's Wednesday statement to 4.611% by Friday. If the yield curve steepens in the absence of an actual cut in rates by the Federal Reserve, which appears likely at least through the August 2007 meeting, it will be by virtue of higher ten-year note yields. While you might think the two markets are correlated closely as ten-year note yields are part of the yield curve, their correlation is a surprisingly low -.609144. The massive steepening and flattening of the yield curve over the past six years had almost no impact on the long end.



Stock Market Impact

What will the stock market impact be if both parts of the supposition above, higher ten-year note yields and a steeper yield curve, come to pass? Let's return to an analysis first introduced in February 2005 on assessing the impact of factor prices on S&P industry groups, and add the twist introduced in November 2006 on weighting these factors by the groups' representation in the index, we can construct tables of groups both helped and hurt by rising ten-year note yields and a steeper yield curve at 90% confidence intervals.

First, let's take a look at the group impact of a steeper yield curve. There are a total of 20 groups with a negative beta to the yield curve; they underperform the S&P 500 as the yield curve steepens. They account for 12.22% of the

SPX by weight and have a beta-weighted impact of -5.59%. These groups are concentrated in industrial sectors, which is not surprising at all given the association between a steep yield curve and a weak economy.

There are 11 of these groups with a statistically significant positive relationship to the yield curve accounting for 13.83% of the SPX by weight. Their beta-weighted impact is 7.11%, which brings the net impact of a steeper yield curve up to 1.52%. The distribution of these groups is somewhat surprising. Instead of being concentrated in carry-dependent financials, they are concentrated in the energy sector. If the forecast made two weeks ago for rising crude oil prices is correct, the oil stocks will benefit twice over.

Yield Curve Beta-Weighted Impact On S&P 500

	SPX Weight	FRR Beta	Weighted Beta		SPX Weight	FRR Beta	Weighted Beta
Systems Software	2.73%	0.366	-1.00%	Pharmaceuticals	6.24%	0.309	1.93%
Aerospace & Defense	2.51%	0.271	-0.68%	Oil & Gas Equipment	1.41%	0.885	1.25%
Department Stores	0.76%	0.745	-0.56%	Diversified Banks	2.33%	0.350	0.82%
Railroads	0.75%	0.662	-0.50%	Thrifts & Mortgages	1.39%	0.562	0.78%
Drug Retailers	0.79%	0.524	-0.41%	Oil & Gas Exploration	0.95%	0.810	0.77%
Data Processing & Outsourcing	1.03%	0.325	-0.33%	Oil & Gas Drilling	0.43%	1.238	0.53%
Industrial Machinery	0.79%	0.361	-0.29%	Oil & Gas Refining	0.37%	0.986	0.36%
General Merchandise Retailers	0.53%	0.482	-0.25%	Gold	0.15%	2.306	0.35%
Application Software	0.41%	0.563	-0.23%	Specialized Finance	0.35%	0.594	0.21%
IT Consulting & Services	0.13%	1.623	-0.20%	Forest Products	0.13%	0.607	0.08%
Computers & Electronics Retailers	0.21%	0.920	-0.19%	Gas Utilities	0.08%	0.445	0.03%
Employment Services	0.10%	1.769	-0.18%				
Electrical Components & Equipment	0.42%	0.419	-0.17%				
Industrial Gases	0.29%	0.579	-0.17%				
Apparel Retailers	0.24%	0.560	-0.13%				
Motorcycle Manufacturers	0.12%	0.701	-0.09%				
Electrical Manufacturing Services	0.10%	0.642	-0.07%				
Specialty Chemicals	0.19%	0.304	-0.06%				
Diversified Commercial Services	0.08%	0.658	-0.05%				
Commercial Printers	0.06%	0.469	-0.03%				
				Subtotal:	13.83%		7.11%
Subtotal:	12.22%		-5.59%	**Total:**	**26.04%**		**1.52%**

We can repeat the exercise for ten-year note yields themselves. A total of 14 groups accounting for 8.54% of the SPX are hurt by rising yields; their beta-weighted impact is a -0.73%. A total of 16 groups accounting for 11.40% of the SPX outperform when yields rise; their beta-weighted impact is 0.84% for a combined net impact of 0.11%. This latter number is shockingly near zero for a variable, long-term interest rates that is supposed to be so important to equities.

But the pattern of losers is clear: Stay away from financials, housing-related stocks and electric utilities. Those very same industrial firms that were hurt by a steeper yield curve within a weaker economy should do relatively well if ten-year note yields rise.

Ten-Year Note Yield Beta-Weighted Impact On S&P 500							
	SPX Weight	TY Beta	Weighted Beta		SPX Weight	TY Beta	Weighted Beta
Electric Utilities	0.95%	0.163	-0.15%	Systems Software	2.73%	0.059	0.16%
Other Diversified Financial Services	2.56%	0.039	-0.10%	Aerospace & Defense	2.51%	0.049	0.12%
Diversified Banks	1.17%	0.081	-0.09%	Department Stores	0.76%	0.104	0.08%
Multiline Utilities	0.62%	0.144	-0.09%	Railroads	0.75%	0.102	0.08%
Regional Banks	0.91%	0.073	-0.07%	Diversified Chemicals	0.89%	0.077	0.07%
Thrifts & Mortgages	0.70%	0.091	-0.06%	Drug Retailers	0.79%	0.078	0.06%
Managed Health	0.72%	0.077	-0.06%	Steel	0.33%	0.188	0.06%
Homebuilding	0.11%	0.341	-0.04%	Data Processing & Outsourcing	1.03%	0.045	0.05%
Consumer Finance	0.46%	0.054	-0.02%	Automobile Manufacturers	0.26%	0.172	0.04%
Specialized Finance	0.17%	0.108	-0.02%	Application Software	0.41%	0.078	0.03%
Gold	0.08%	0.197	-0.02%	Specialty Stores	0.30%	0.082	0.02%
Construction Materials	0.04%	0.094	0.00%	Employment Services	0.10%	0.167	0.02%
Gas Utilities	0.04%	0.097	0.00%	IT Consulting & Services	0.13%	0.124	0.02%
Home Furnishings	0.02%	0.088	0.00%	Motorcycle Manufacturers	0.12%	0.103	0.01%
				Advertising	0.18%	0.060	0.01%
				Office Services & Supplies	0.13%	0.042	0.01%
				Subtotal:	11.40%		0.84%
Subtotal:	8.54%		-0.73%	**Total:**	**19.93%**		**0.11%**

The trend of long-term interest rates has been down for so long, since 1981, we forget what “up” looks like. As much of the equity bull market of the 1980s was really a bond rally in disguise, and as so much of the post-2002 rally has been a capture of liquidity, we forget that stocks often have to swim upstream against bonds for long periods. If that is going to be the case, do it with energy and industrials and stay away from the financials.