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Total Return Review

Viewing the Markets from a Total Return Perspective

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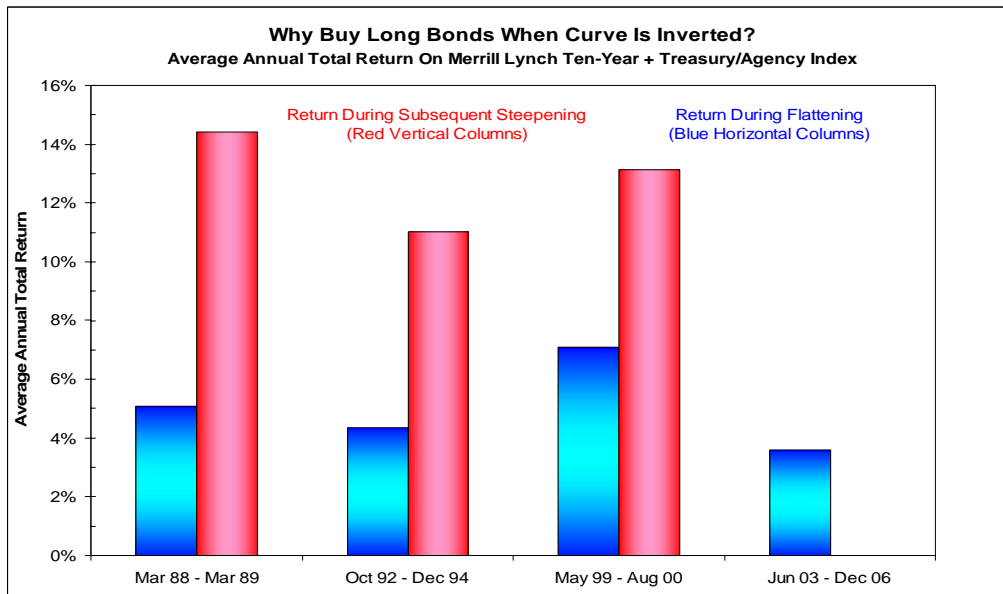
Yield Curve, Convexity And Total Returns

We have visited twice before the issue of why anyone would buy long-dated Treasuries in an inverted yield curve environment, first in a December 2005 [Commentary](#) and again in the May 2006 [Total Return Review](#).

In both instances, the conclusion was the same:

History suggests lengthening duration as the yield curve inverts and the Federal Reserve appears ready to stop is not a bad idea at all.

The chart below depicts the average annual total returns on the Merrill Lynch Ten-Year+ Treasury/Agency index during flattening periods (blue columns) and during the subsequent steepening of the curve (red columns). **In each of the three post-flattening cycles identified, total returns increased once the yield curve began to re-steepen.**

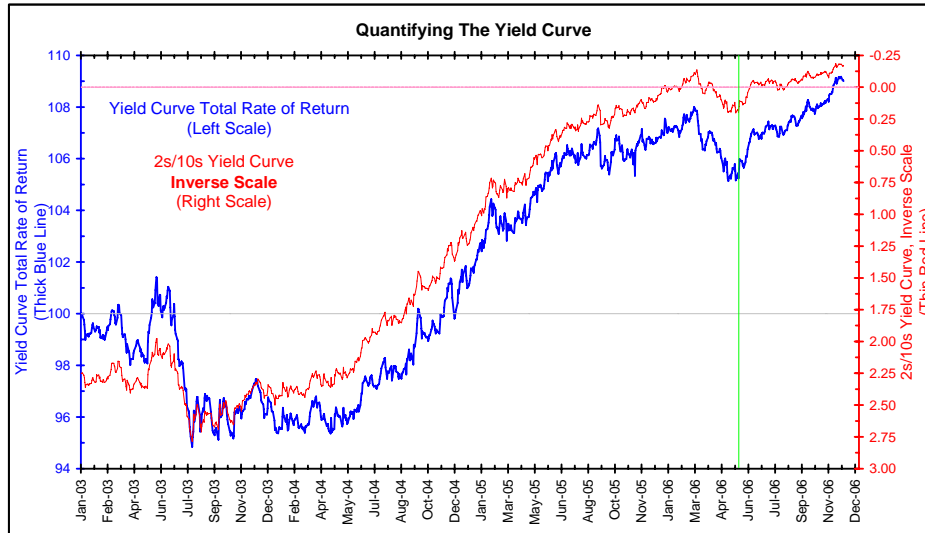


Renewed Inversion, Renewed Returns

We discussed the issue in May as if the yield curve flattening which began in the summer of 2003 was behind us; this assumption was premised on the correct assumption the Federal Reserve's rate-hike cycle would end soon. Instead, the 2/10 yield curve (thin red line, inverse scale, following page) began to flatten just before Memorial Day and moved back into an inversion by mid-June 2006 (green vertical line). We now have to consider the February 23rd – May 25th steepening of the yield curve a correction within a broader flattening trend, not a new steepening trend.

How did an index of the total return on the trade of financing ten-year Treasuries with a duration-weighted borrowing of two-year notes (thick blue line) fare since the end of May? The index increased from 105.728 on May 25th to 109.003 on December 1st, while the 2/10 yield curve flattened by more than 30 basis points.

The key to these returns was the bullish flattening of the curve; ten-year yields declined more than 60 basis points during this period.

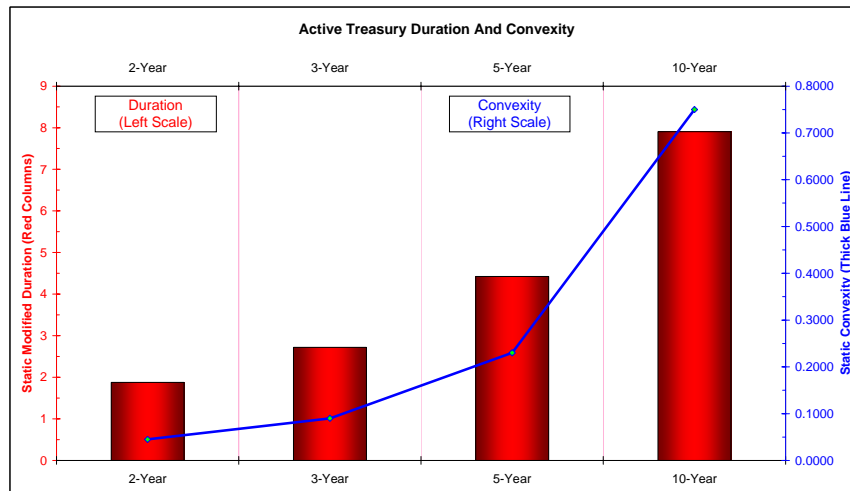


Value Of Convexity

As we first emphasized in the December 2005 [Commentary](#), the value of convexity is such that a trader should be willing to pay negative carry in return for potential capital gains in a subsequent falling rate environment.

A normal bond's convexity should rise with its maturity and move inversely to its coupon level. Given the historically low coupons at the long end of the yield curve, the convexity of Treasuries (red columns) rises rapidly with the bonds' duration (thick blue line).

At the close of business on December 1, 2006, the static duration of the 4.625% Treasury due November 15, 2016 was 4.212 times greater than that of the 4.625% Treasury due November 30, 2008. A duration-weighted trade between these two notes, the active two-year and the active ten-year, would result in a positive convexity of $[.75 - 4.212 * .045]$, or .560. The potential for a significant capital gain remains should long-term yields decline for any reason.



Conclusion

For all of the current chatter in the market that the Federal Reserve will move toward cutting the federal funds rate in 2007, we admonish bond investors to be careful what they wish for: The last three-month period of steepening, February-May 2006, witnessed negative returns on ten-year notes financed with a duration-neutral borrowing of two-year notes.

In an environment where the course of inflation is uncertain but deemed "uncomfortably high" by Federal Reserve officials and the dollar is under pressure, the prospect of easier monetary policy might trigger a similar decline in long-term Treasury prices. We have seen for the past year how the combination of negative carry and declining inflation expectations has benefited both bondholders and shareholders alike. More of the same should be welcomed.

U. S. Fixed-Income Total Returns

	As of 11/30/06			Annualized Ending 11/30/06			
	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Treasury Cash:	0.44%	0.84%	4.46%	4.82%	3.00%	2.43%	4.02%
3 Month	0.43%	0.83%	4.45%	4.79%	2.98%	2.41%	3.96%
6 Month	0.49%	0.88%	4.55%	4.94%	3.10%	2.57%	4.14%
Treasury Coupons:	1.28%	1.86%	3.17%	4.46%	3.67%	4.65%	5.67%
2 Year	0.48%	0.82%	3.65%	4.06%	2.21%	2.94%	4.61%
5 Year	0.87%	1.28%	3.39%	4.14%	2.49%	4.00%	5.35%
10 Year	1.50%	2.09%	3.26%	4.80%	3.87%	4.86%	5.71%
30 Year	2.91%	4.05%	2.39%	5.54%	7.19%	6.79%	7.06%
Treasury Strips:	2.81%	3.86%	4.66%	7.62%	9.02%	8.66%	9.13%
5 Year	0.98%	1.54%	4.15%	4.62%	3.16%	4.82%	6.27%
10 Year	1.74%	2.46%	4.48%	5.94%	5.95%	7.33%	7.98%
15 Year	2.80%	3.67%	4.12%	6.64%	8.73%	9.30%	9.16%
20 Year	3.24%	4.32%	3.81%	7.50%	11.44%	10.22%	10.03%
25 Year	5.02%	6.42%	3.34%	7.29%	12.36%	10.66%	10.54%
Broad Indices							
Salomon "BIG"	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lehman Aggregate	1.16%	1.83%	4.94%	5.94%	4.26%	5.05%	6.20%
Lehman Government/Credit	1.18%	1.81%	4.57%	5.56%	4.05%	5.16%	6.22%
Government Indices							
Lehman Government	1.02%	1.51%	4.21%	5.18%	3.75%	4.61%	5.98%
Lehman Treasury	1.04%	1.51%	3.93%	5.01%	3.72%	4.60%	5.95%
Lehman Agency	0.96%	1.48%	4.80%	5.51%	3.78%	4.62%	6.03%
Agency Benchmarks							
2 Year	0.52%	1.02%	4.14%	4.57%	2.70%	3.51%	N/A
5 Year	1.03%	1.65%	4.91%	5.57%	3.41%	4.84%	N/A
10 Year	1.77%	2.61%	5.99%	7.24%	5.58%	6.45%	N/A
30 Year	2.77%	3.72%	5.38%	8.24%	9.13%	8.74%	N/A
Other Indices							
Merrill Corporate	1.42%	2.29%	5.32%	6.36%	4.67%	6.08%	6.61%
Lehman Mortgage	1.13%	1.84%	5.49%	6.54%	4.63%	4.82%	6.13%
Lehman Inflation Notes ("TIPS")	1.24%	1.03%	2.81%	4.07%	5.02%	7.44%	N/A
Merrill High Yield	1.60%	3.08%	10.55%	11.56%	8.83%	9.45%	6.82%
Merrill Municipal	0.84%	1.47%	5.29%	6.32%	5.23%	6.01%	6.29%

Treasury Cash: Equal-weighted total-return avg. of the Treasury yield curve from 3 to 12 month maturities.

Treasury Coupons: Equal-weighted total-return avg. of the Treasury yield curve from 2 to 30 year maturities.

Treasury Strips: Equal-weighted total-return average of Treasury Strips from 1 year to 30 years.

Sources: Bloomberg, Ryan Labs, Lehman Brothers, Merrill Lynch, Salomon Smith Barney and Arbor Research & Trading

Total Return Comparisons: The "Bullet" versus "Barbells"

Portfolio Type*	As of 11/30/06					
	MTD	Diff.	QTD	Diff.	YTD	Diff.
Bullet (4.60 Duration)	0.98%		1.54%		4.15%	
5 yr and 10 yr	0.90%	-0.08%	1.32%	-0.21%	3.38%	-0.77%
5 yr and 30 yr	0.90%	-0.08%	1.32%	-0.21%	3.37%	-0.78%
2 yr and 10 yr	0.94%	-0.04%	1.39%	-0.14%	3.48%	-0.67%
2 yr and 30 yr	0.95%	-0.03%	1.45%	-0.09%	3.41%	-0.74%
Cash and 10 yr	1.04%	0.06%	1.55%	0.01%	3.78%	-0.38%
Cash and 30 yr	1.12%	0.14%	1.73%	0.19%	3.88%	-0.28%
Cash and 25 yr Strips	1.27%	0.29%	1.85%	0.32%	4.25%	0.09%

*This analysis compares the total return of the 5-Year Strip or the "bullet" to cash neutral, duration neutral barbells.

Its purpose is to quantify the effect of the yield curve on total return.

Sources: Bloomberg and Ryan Labs

World Fixed-Income Total Returns (in U.S. Dollars)

	in U.S. Dollars						
	As of 11/30/06			Annualized Ending 11/30/06			
	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
J. P. Morgan Government Bond Indices							
Country							
Canada	-0.78%	-1.02%	6.92%	7.99%	11.57%	13.58%	8.43%
France	4.39%	5.44%	13.39%	14.44%	8.59%	13.69%	6.17%
Germany	4.37%	5.42%	13.54%	14.52%	8.60%	13.60%	5.83%
Italy	4.50%	5.74%	13.40%	14.61%	9.12%	14.11%	7.09%
Japan	1.63%	2.29%	2.28%	3.59%	-1.05%	2.27%	2.09%
United Kingdom	3.22%	6.28%	16.77%	17.24%	11.07%	12.06%	8.85%
United States	1.10%	1.61%	4.00%	5.16%	3.89%	4.78%	6.11%
Region							
Europe	4.28%	5.66%	14.01%	15.00%	9.04%	13.68%	6.74%
Global	2.66%	3.60%	7.98%	9.11%	4.92%	8.15%	5.45%
Global Non-United States	3.14%	4.21%	9.25%	10.37%	5.22%	9.28%	4.86%
J. P. Morgan Emerging Markets Bond Indices							
EMBI Plus	1.36%	3.37%	9.69%	11.92%	12.26%	15.41%	11.07%
Region							
Latin	1.24%	3.38%	11.38%	14.04%	13.37%	15.37%	10.06%
Non-Latin	1.53%	3.35%	7.24%	8.86%	10.63%	15.66%	12.74%

World Fixed-Income Total Returns (in Local Currency)

	in Local Currency						
	As of 11/30/06			Annualized Ending 11/30/06			
	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
J. P. Morgan Government Bond Indices							
Country							
Canada	1.12%	1.32%	4.53%	5.54%	6.86%	6.56%	6.65%
France	0.51%	0.76%	0.90%	1.78%	5.01%	5.11%	5.60%
Germany	0.50%	0.74%	1.03%	1.86%	5.02%	5.03%	5.40%
Italy	0.62%	1.05%	0.91%	1.94%	5.53%	5.49%	6.70%
Japan	0.33%	0.21%	0.22%	0.13%	0.76%	1.00%	2.26%
United Kingdom	0.09%	0.93%	1.91%	3.13%	6.23%	5.08%	7.15%
United States	1.10%	1.61%	4.00%	5.16%	3.89%	4.78%	6.11%
Region							
Europe	0.48%	0.84%	1.11%	2.02%	5.30%	5.24%	6.08%
Global	0.60%	0.85%	1.61%	2.29%	3.70%	3.97%	5.18%
Global Non-United States	0.44%	0.61%	0.89%	1.42%	3.63%	3.68%	4.81%

Sources: Bloomberg and J. P. Morgan & Co. Incorporated (<http://www.jpmorgan.com/>)

U. S. Equity Total Returns

	As of 11/30/06			Annualized Ending 11/30/06			
	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Broad Market							
Dow Jones Industrials ²	1.54%	5.16%	16.57%	15.75%	10.14%	6.77%	8.61%
NASDAQ Composite ¹	2.86%	7.81%	11.07%	9.77%	8.18%	5.34%	6.29%
NASDAQ 100 ²	3.46%	8.38%	9.34%	7.60%	8.34%	2.63%	8.14%
NYSE Composite ²	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 2000 ⁴	2.64%	8.55%	18.03%	17.49%	14.27%	12.71%	9.71%
S&P 500 (Capitalization Weighted) ³	1.90%	5.22%	14.18%	14.22%	11.81%	6.08%	8.05%
S&P 500 (Equal Weighted) ¹	N/A	N/A	N/A	N/A	N/A	N/A	N/A
S&P 400 MidCap ³	3.22%	7.50%	10.85%	11.62%	13.91%	12.12%	13.54%
S&P 600 SmallCap ³	2.77%	7.86%	15.13%	14.09%	15.67%	13.98%	11.71%
Wilshire 5000 ¹	2.26%	5.97%	14.43%	14.59%	12.69%	7.75%	8.40%
Interest Rate Sensitive							
PSE Electric Utility Index ²	1.92%	7.45%	18.59%	19.36%	23.42%	13.67%	11.28%
KBW Bank Stock Index ²	-0.65%	0.13%	11.94%	12.34%	9.63%	9.60%	10.14%
S&P 500 Financial Index ²	0.62%	3.06%	14.75%	15.01%	12.44%	9.14%	11.12%
Other Indices							
Morgan Stanley Consumer Index ²	0.68%	3.47%	16.09%	16.95%	10.75%	6.18%	8.85%
Morgan Stanley Cyclical Index ²	3.52%	8.04%	14.56%	16.26%	14.42%	13.14%	10.53%
S&P 500/Barra Growth ³	2.03%	5.27%	10.62%	10.40%	8.40%	3.26%	6.84%
S&P 500/Barra Value ³	1.80%	5.21%	17.98%	18.30%	15.32%	8.87%	8.84%
Gold/Silver Stock Index ²	8.80%	16.40%	17.76%	31.67%	12.11%	25.29%	3.83%

Sources: ¹ Wilshire Associates Incorporated (<http://www.wilshire.com>) and Ryan Labs Inc.

² Bloomberg L.P. and Ryan Labs Inc.

³ BARRA, Inc. (<http://www.barra.com>) and Standard & Pools (<http://www.spglobal.com>)

⁴ Frank Russell Company (<http://www.russell.com>)

Commodity Total Returns

	As of 11/30/06			Annualized Ending 11/30/06			
	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Commodity Total Return Indices							
Reuters/CRB ¹	5.56%	6.12%	1.26%	7.27%	10.90%	11.95%	3.58%
Goldman Sachs Commodity ²	5.53%	2.82%	-8.59%	-5.96%	12.77%	16.19%	5.55%
Rogers International Commodities ³	3.79%	5.27%	6.53%	12.24%	17.05%	21.75%	10.37%
S&P Commodity ⁴	7.67%	8.17%	-9.16%	-5.92%	10.61%	13.72%	4.45%

Sources: ¹ Reuters/CRB (<http://www.crbindex.com/crbindex/>)

² Goldman Sachs (<http://www.gs.com/gsci/>)

³ Beeland Management Co., L.L.C.

⁴ Standard & Poor's (http://www.spglobal.com/indexmaincommodity_data.html)

World Equity Total Returns (in U.S. Dollars)

	in U.S. Dollars						
	As of 11/30/06			Annualized Ending 11/30/06			
	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Morgan Stanley Capital International Indices							
Country							
Canada	2.90%	7.84%	19.12%	24.44%	25.74%	21.01%	13.14%
France	3.97%	6.78%	30.79%	35.30%	23.43%	14.72%	11.65%
Germany	4.60%	9.84%	31.36%	36.76%	23.56%	14.06%	9.29%
Italy	5.61%	9.95%	31.40%	37.41%	23.84%	19.06%	13.77%
Japan	0.71%	2.46%	3.75%	12.65%	17.35%	11.52%	1.32%
United Kingdom	2.44%	7.56%	27.43%	31.10%	20.71%	13.40%	8.88%
United States	1.98%	5.47%	13.94%	14.00%	11.95%	6.02%	7.98%
Region							
World Index	2.50%	6.28%	18.22%	20.87%	16.80%	10.18%	7.69%
EAFE	3.02%	7.03%	22.99%	28.72%	22.20%	14.85%	7.59%
Emerging Markets (Free)	7.45%	12.56%	26.86%	34.38%	32.11%	27.80%	8.97%

World Equity Total Returns (in Local Currency)

	in Local Currency						
	As of 11/30/06			Annualized Ending 11/30/06			
	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Morgan Stanley Capital International Indices							
Country							
Canada	4.88%	10.39%	16.45%	21.61%	20.42%	13.52%	11.28%
France	0.11%	2.04%	16.38%	20.34%	19.36%	6.06%	11.05%
Germany	0.71%	4.96%	16.89%	21.64%	19.49%	5.45%	8.85%
Italy	1.69%	5.07%	16.92%	22.21%	19.76%	10.07%	13.36%
Japan	-0.58%	0.37%	1.66%	8.88%	19.50%	10.13%	1.48%
United Kingdom	-0.67%	2.14%	11.21%	15.33%	15.42%	6.33%	7.17%
United States	1.98%	5.47%	13.94%	14.00%	11.95%	6.02%	7.98%
Region							
World Index	1.18%	4.32%	13.09%	15.56%	15.43%	7.32%	7.52%
EAFE	0.05%	2.67%	12.11%	17.16%	19.40%	8.39%	6.94%
Emerging Markets (Free)	6.55%	10.29%	23.97%	30.73%	27.98%	23.95%	12.52%

Sources: Bloomberg and Morgan Stanley Capital International (<http://www.msdata.com/>)

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