THE DEVIL'S ADVOCATE REPORT

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A Pairs Trade Opportunity in ETFs:

Profiting from the Credit Spread Between High-Yield Municipal Bonds and U.S. Treasury Securities

Short

Vanguard Extended Duration Treasury Index ETF

Ticker	Price	Net Assets (3/31/09)	52-Week Range	Yield
EDV	$100.18	$41.4 mill.	$89.00 - $167.96	3.93%

Long

Market Vectors High-Yield Municipal Index ETF

Ticker	Price	Net Assets (3/31/09)	52-Week Range	Yield
HYD	$27.81	$78.6 mill.	$25.58 - $26.91	7.33%

Exclusive Marketers of
The Devil's Advocate Report

Investment Thesis

Introductory Remarks

The distinction should be made at the outset of this report between the pairs trade recommended here and a typical pairs trade. A pairs trade normally attempts to capitalize on a distinct competitive advantage one business might have over another related business. The trade is structured to go long the business that, for a particular reason, might be expected to generate a sustainably higher return-on-equity, or a perhaps a higher profit margin, over the long-term, than a related company, which would be shorted by an equal dollar amount. For example, pairs trades have been recommended in the past in which the investor would go long a beverage concentrate manufacturer such as PepsiCo or Coca-Cola and short its primary bottler, those being Pepsi Bottling Group and Coca-Cola Enterprises. It was proposed[1] that the low return on capital generated by the beverage bottling companies would ultimately result in inferior share performance relative to that of the parent concentrate manufacturers, which achieve a superior profit margin and, ultimately, a higher rate of earnings growth.

However, this pairs trade is altogether different. To begin with, the companies involved are not companies at all, but ETFs; furthermore, the ETFs under discussion are comprised not of indices of companies, but of government-issued bonds. The long position in the trade is the Market Vectors High-Yield Municipal Index ETF (HYD), and the short is the Vanguard Extended Duration Treasury Index ETF (EDV). The trade is structured to profit from the return potential of high-yield municipal bonds (of which HYD is comprised) and the expected depreciation of long-term Treasury STRIPS (which comprise EDV). Therefore, the trade is quite distinct from the strategy of attempting to capitalize on a competitive advantage and disadvantage between two businesses. Indeed, this pairs trade might even be more appropriately categorized as a "spread trade".

While traditional pairs trades involving two publicly traded companies often prove to be quite successful, a pairs trade involving ETFs has one distinct advantage. A pairs trade between two ETFs instead of two companies eliminates a potential destruction of the trade when the perceived superior business (the long in the trade), which has the potential to grow at a much faster rate than the inferior business and thereby become comparatively much larger, decides to acquire the smaller, inferior business. A recent example of this is the ongoing attempt of PepsiCo to buy Pepsi Bottling and Pepsi Americas. Of course, when the perceived superior firm announces a bid for the inferior firm, the acquirer (the long in the trade) often declines in price while the target (the short in the trade) shares rise to the acquisition price; such an occurrence is of course unfavorable for the pairs trade investor.

The Case for Shorting EDV

The Vanguard Extended Duration Treasury Index ETF (EDV) is a portfolio of long-term zero-coupon U.S. Treasury STRIPS, that tracks the performance of the Barclays Capital

[1] ***The Hidden Hedge Report****:Volume 4, #1*; January 28, 2004.

U.S. Treasury STRIPS 20–30 Year Equal Par Bond Index. The portfolio currently holds 47 STRIPS, and has a yield to maturity of 4.3%. The term STRIPS stands for Separate Trading of Registered Interest and Principal Securities. They are, essentially, Treasury bonds from which the principal portions have been separated, or "stripped" (the name derives from the days when paper bonds were physically traded and traders would literally tear the interest coupons off of paper securities for separate resale). As STRIPS do not have coupons, they are zero-coupon instruments and, therefore, the only time an investor receives a payment is at maturity. As zero-coupon bonds, the duration of STRIPS is equivalent to their maturity, making them very unlike a typical bond.

Toward the end of 2008 and through the first weeks of 2009, the yields on long-term Treasuries were near historical lows. They have since risen moderately. On January 2, 2009, the yield on the 30-Year Treasury was 2.83%; today, the yield is 4.14%. The reasons for these exceedingly low yields are obvious to those who have observed the world economy over the past year. As countries have fallen into recession, the central banks of the world, including the U.S. Federal Reserve, have undertaken extraordinary actions to avoid a deep and prolonged recession. With control of interest rates as its primary tool, the Fed has lowered the U.S. federal funds rate to between 0% and 0.25%, and has taken further measures to maintain low borrowing rates. As important, the tremendous "flight to quality" following the calamity in the financial sector in the second half of last year increased prices for Treasuries, thereby forcing yields to all-time lows.

However, market observers are no doubt equally aware of developments that will likely drive Treasury yields to historically normal levels, or even higher. The most obvious development is the increase in deficit spending by the U.S. Congress as a result of its stimulus measure and the initiatives of the new Presidential administration. On May 11th, the Office of Management and Budget increased its deficit projection for FY2009 to $1.75 trillion – or 12.3% of GDP. The current projection for FY2010 is $1.26 trillion. Of course, increased deficit spending is accompanied by an increase in the issuance of Treasuries, and this increase in supply should naturally lead to lower prices and higher yields. While the Fed is attempting to sustain the demand side of the supply/demand equation through a $300 billion program of buying Treasuries, overseas demand appears to have lessened to a degree. In March, Chinese premier Wien Jiabao noted that China is the largest foreign creditor to the U.S., and he raised concern about "the safety" of the country's estimated $1 trillion of Treasury holdings.

Buyers of Treasuries might also be concerned about inflation expectations. While buyers will eventually receive a return of principal, repayment could be in substantially depreciated dollars, especially for long-term issues. At the current low nominal yields, real yields could approach zero or even negative levels, a circumstance that would be unlikely to continue. The result would naturally lead to an increase in nominal yields and a decline in Treasury prices.

Furthermore, aside from the issues of deficit spending and inflation concern, it is worth noting that the Treasury Department is increasing the supply of long-term bonds. From

February 2002 to February 2006, the Treasury discontinued the issuance of 30-year bonds. Yet last month, the Department said it will increase the number of times its auctions 30-year Treasuries to 12 times per year from eight. This follows its decision earlier in the year to double the frequency of auctions to eight times annually from four. Because interest rates are so low, and the national debt is weighted heavily towards the short term, it is not difficult to understand the motivation of the Treasury to extend the maturities on its liability. Therefore, the increased issuance of long-term Treasuries should have a downward influence on prices by increasing supply.

If it is accepted that long-term Treasury yields might approach normal levels, or even higher than normal levels, the most effective way of profiting from that development is to be short STRIPs. Long-term STRIPs, as long-duration zero-coupon bonds, are among the most sensitive of all bonds to interest rates. However, being short the Vanguard Extended Duration Treasury Index ETF has an added advantage over being short a series of STIRPS, because its yield is lower due to its 14 basis point expense ratio. This fee gives someone who shorts EDV the advantage of a negative carry.

To estimate the return potential on this side of the pairs trade, one could examine historical long-term Treasury rates in relation to today's rates. The following table lists the average annual Treasury rate for 30-year bonds, since 1977. In the inflationary period of the late 1970s, the average annual 30-year Treasury rate ranged from 7.75% in 1977 to as high as 13.45% in 1981. In more benign periods, from 1996 to 2000, for example, the 30-year Treasury yielded as high as 6.71% and as low as 5.94% in 2000. Even in the recessionary 2002 year, the 30-year Treasury yielded on average 5.43%. One can clearly see that, although yields have risen over the past few months, they are still very low by historical standards.

Average Annual 30-Year Treasury Rate

Year	30-Yr Rate	Year	30-Yr Rate
1977	7.75 %	1993	6.59 %
1978	8.49	1994	7.37
1979	9.28	1995	6.88
1980	11.27	1996	6.71
1981	13.45	1997	6.61
1982	12.76	1998	5.58
1983	11.18	1999	5.87
1984	12.41	2000	5.94
1985	10.79	2001	5.49
1986	7.78	2002	5.43
1987	8.59	2003	- From Feb. 18, 2002 to Feb. 9,
1988	8.96	2004	- 2006, the Treasury discontinued
1989	8.45	2005	- 30-year Treasury issuance.
1990	8.61	2006	4.91
1991	8.14	2007	4.84
1992	7.67	2008	4.28

If the long-term Treasury rate merely returns to the benign 2006 interest rate level of 4.91%, from the current level of 4.14%, the short would return 19.8%.[2] Over the entire 31-year period from 1977 to 2008, the average annual 30-year rate is 8.59%. If the rate were to return to this average rate, the return to the short seller would be 71%. Since 1990, the average annual rate is 6.31%; a return to this rate would return 46% to the short seller. One can easily begin to see how the short side of this pairs trade could provide a lucrative rate of return.

Forming a Pairs Trade with a Long Position in HYD

The Market Vectors High-Yield Municipal Index ETF (HYD) was only very recently launched, on February 4, 2009. According to Van Eck Global, its fund's sponsor, HYD is the first ETF to focus on high-yield municipal bonds. HYD seeks to track the performance of the Barclays Capital Municipal Custom High Yield Composite Index. This index has a 25% weighting in investment-grade BBB bonds and a 75% weighting in non-investment grade bonds. In addition, 75% of the index is in bonds issued as part of transactions of at least $100 million in size.

HYD has a distribution yield of 7.33%. The bonds in the portfolio have an average yield to worst of 9.3% (because most of the bonds in the portfolio trade well below par), an average years-to-maturity of 18.61 years, and an average modified duration of 8.29 years. It is important to remember that as high yield securities, the duration is completely different than the zero-coupon STRIPS in EDV. The average credit quality is also very different because HYD holds lower grade municipal bonds, which have a pronounced tendency to default (as opposed to AAA-rated STRIPS). The average credit quality of the portfolio is Ba1 by Moody's and BBB by Standard & Poor's.

In 1999 Fitch Ratings published a study of municipal bond defaults, which was updated in 2003.[3] The latter study covered 2,339 cases of municipal defaults worth $32.8 billion between 1980 and 2002. It found that the cumulative default rate on bonds issued through 1986 was 1.5%, while the cumulative default rate on bonds issued between 1987 and 1994 was 0.63%. These figures are actually somewhat misleading because they overlook the nuance that most of the defaults occur in low-grade municipal bonds. The cumulative default rate for low-grade industrial revenue bonds, which comprise a not inconsiderable portion of HYD, is 14.62%. This cumulative default rate measures the default rate in each year through the life of a portfolio of low-grade industrial revenue

[2] Zero-coupon bonds are pure time value instruments. Therefore, the present value of a 30-year zero coupon bond can be calculated using the time value functions on any financial calculator, where the number of years (N) = 30, the future value (FV) = 100, the coupon (PMT) = 0, and the yearly interest (I/Y) = the annual rate. The present value (PV) of a 30-year zero coupon bond at the current 4.14% rate is $29.61; at the 2006 level of 4.91%, the present value is $23.74. 23.74 ÷ 29.61 = (19.8)%, the opposite of which is the return to the short seller.

[3] David T. Litvack and Mike McDermott, *Special Report: Municipal Default Risk Revisited*, Fitch Ratings, June 23, 2003.

bonds, and adds them together. In other words, the cumulative default rate over a 20-year life is 14.62%. It is even higher for hospital bonds, which have a cumulative default rate of 17.03%.

If one bought a portfolio of hospital bonds with a 20-year life to correspond more or less to the 18.61 year life of HYD with a 17.03% default rate, it would amount to an 85 basis point default rate per year. This means a little bit less than 1% of the bonds in this portfolio, assuming they were all hospital bonds of low grade, would default in any year. The average recovery rate in a municipal default is 68%, and the reciprocal of the recovery rate is actually the loss rate (i.e., if the recovery rate were 68%, the loss rate would be 32%, assuming one made the investment at par).

If a 32% loss rate is multiplied by an 85 basis point default rate, this should, in principle, result in the number of basis points one loses by default in any given year – which works out to approximately 27 basis points. If one were to subtract 27 basis points from HYD's distribution yield of 7.33%, one still has a tax-advantaged rate of return of 7.06%, assuming no appreciation.

The default rate is further mitigated by the fact that most of the low-grade bonds in HYD trade well below par value. The average bond in this fund already trades between 75% and 80% of par value, so if one calculated the loss rate accordingly, the loss rate is actually quite minimal. For example, if one were calculating at 75% of par value (meaning for one to recover 100% of one's principal the bonds would only have to return 75% of par), and given a recovery rate of 68%, the typical loss rate would only be 7%. Employing an 85 basis point default rate in any given year, the economic loss per annum would be slightly less than 6 basis points from default.

In summation, one can see how the market might be improperly valuing this segment of municipal bonds. It appears that the market has discounted a negative scenario that is not likely to materialize and, therefore, the credit spread between HYD and long-term Treasuries should, in principle, narrow. Employing the yield-to-worst on HYD of 9.3%, it trades at a 2.25x yield advantage over (or 225% of) the current 30-year Treasury rate of 4.14%. Instead of trading at 225% of the Treasury yield, if HYD traded at half that amount, or 112% of the Treasury yield, the pairs trade investor would double his or her money. Therefore, a pairs trade in which the investor goes long EDV and short HYD is recommended.

Fund Overview – EDV

The following table provides the basic characteristics of the EDV.

NAV (as of 05/20/2009)	$ 101.72
Market Price	$ 101.64
Premium/Discount	(0.08)% *(cont'd)*

Expense ratio	0.14%
Inception date	12/6/2007
Inception NAV	$ 97.78
CUSIP #	921910709

The next table provides the characteristics of the underlying STRIPS portfolio.

Fixed-Income Characteristics (as of 4/30/2009)

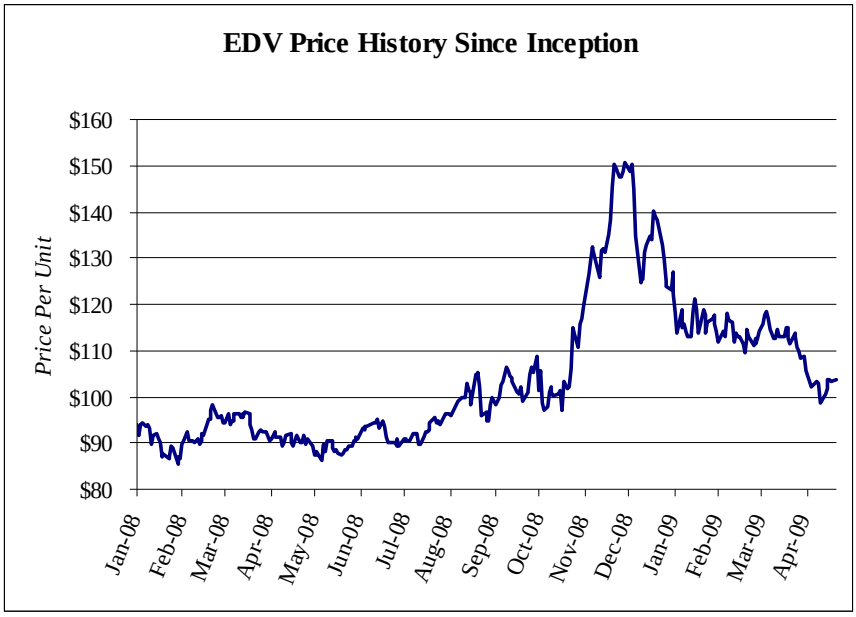
Number of Bonds	47
Yield to Maturity	4.3%
Average Coupon	0 *
Average Maturity	24.7 years
Average Credit Rating	AAA
Average Duration	25.3 years
Fund Total Net Assets	$175.6 million

** Treasury Strips are zero-coupon instruments*

The following table details quarterly distributions (as well as a capital gains distribution in December 2008) since the fund's inception. Although the fund is comprised of zero-coupon bonds, it is able to pay a quarterly distribution based on the imputed interest that zero coupon bonds accrue through the "original issue discount" structure. In other words, although no cash interest is actually received, the fund pays out a portion of principal, which increases toward par as the time to maturity decreases.

Distribution Amount	Ex-Dividend Date	Payable Date
$0.943	3/25/2009	3/31/2008
$1.425	12/22/2008	12/29/2008
$0.885	9/24/2008	9/30/2008
$0.820	6/24/2008	6/30/2008
$0.684	3/25/2008	3/31/2008
$0.349	12/24/2007	12/31/2007

The next chart details the price history of EDV since its inception in December 2007. Notice the sharp rise in price in mid-October 2008, which marked the beginning of the credit crisis, and thus a widespread and rapid "flight to quality" in U.S. Treasury securities.



The next very brief but significant table shows the return of EDV over one year and since inception, versus the index it tracks, over the same time periods. Notice that EDV has a slightly diminished return over both time periods, which is due in part to the fund's expense ratio. This expense ratio gives the fund a negative carry – a benefit to the short-seller.

	1-Year	Since Inception (12/06/2007)
Vanguard Extended Duration Treasury (EDV)	11.98%	7.46%
Barclays Treasury Strips 20-30 Year Equal Par Bond Index	12.11%	8.33%

Finally, for those interested in a precise listing of the fund's holdings, the next table provides the face amount and market value of all 47 STRIPS included in EDV.

	Maturity Date	Face Amount ($000)	Market Value ($000)		Maturity Date	Face Amount ($000)	Market Value ($000)
1.)	May 2029	10,100	4,350	25.)	Aug 2034	11,300	4,114
2.)	Aug 2029	9,550	4,118	26.)	Nov 2034	11,725	4,245
3.)	Aug 2029	10,650	4,527	27.)	Feb 2035	9,300	3,333
4.)	Nov 2029	9,600	4,065	28.)	May 2035	10,125	3,621
5.)	Feb 2030	11,200	4,663	29.)	Aug 2035	9,650	3,411
6.)	May 2030	8,350	3,500	30.)	Nov 2035	10,460	3,677
7.)	May 2030	13,200	5,430	31.)	Feb 2036	10,300	3,710
8.)	Aug 2030	11,400	4,644	32.)	Feb 2036	11,850	4,118
9.)	Nov 2030	8,725	3,532	33.)	May 2036	10,760	3,749
10.)	Feb 2031	5,150	2,101	34.)	Aug 2036	9,800	3,387
11.)	Feb 2031	15,850	6,346	35.)	Nov 2036	11,930	4,082
12.)	May 2031	9,650	3,839	36.)	Feb 2037	12,745	4,321
13.)	Aug 2031	10,650	4,195	37.)	Feb 2037	8,700	3,059

(cont'd)

14.)	Nov 2031	11,100	4,322	38.)	May 2037	9,150	3,217
15.)	Feb 2032	10,850	4,209	39.)	May 2037	10,200	3,443
16.)	May 2032	10,705	4,137	40.)	Aug 2037	11,945	4,030
17.)	Aug 2032	11,350	4,350	41.)	Nov 2037	10,200	3,417
18.)	Nov 2032	8,685	3,310	42.)	Feb 2038	12,850	4,465
19.)	Feb 2033	10,300	3,906	43.)	Feb 2038	6,200	2,139
20.)	May 2033	11,050	4,180	44.)	May 2038	16,995	5,983
21.)	Aug 2033	11,750	4,399	45.)	May 2038	9,050	3,134
22.)	Nov 2033	8,450	3,148	46.)	Feb 2039	22,000	7,643
23.)	Feb 2034	9,800	3,623	47.)	Feb 2039	4,000	1,384
24.)	May 2034	9,400	3,454		**47 Total**		**$98,348**

Fund Overview – HYD

The following table provides the basic characteristics of the fund.

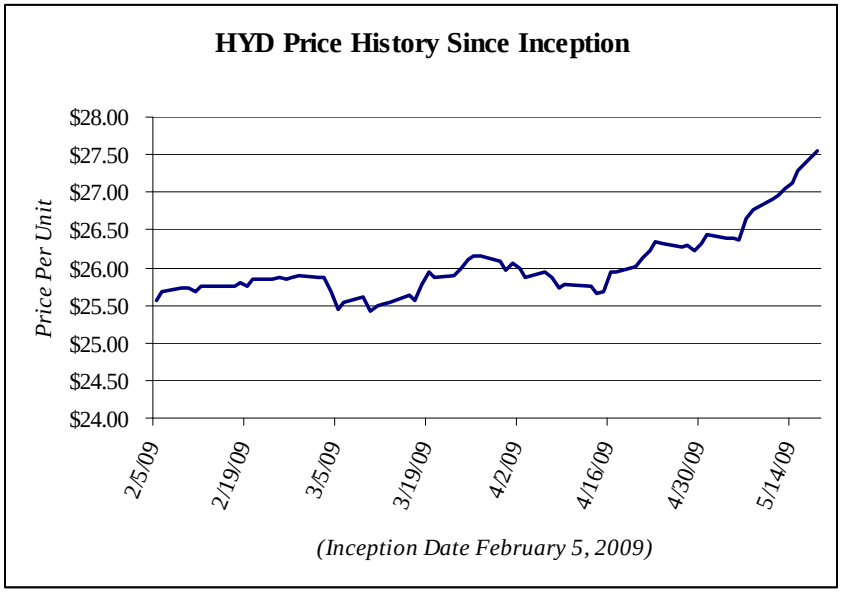
NAV (as of 5/20/09):	$27.39
Market Price:	$27.98
Premium/(Discount):	2.15%
Expense Ratio:	0.35%
Inception Date:	2/4/09
Inception NAV:	$25.00
Cusip Number:	57060U878

The next table provides the characteristics of the underlying municipal bond portfolio.

Fixed-Income Characteristics (as of 4/30/09)

Average Yield to Worst:	9.30%	
Average Modified Duration:	8.21	years
Average Years to Maturity:	18.76	years
Average Coupon:	5.53%	
Number of Issues:	46	
Market Value/ Total Net Assets:	$76.9 mill.	

The following chart details the price performance of HYD since inception in February.



The following table details the three monthly dividend distributions since inception in February, as well as the fund's yield and tax-equivalent yields given five different rates of taxation.

Payable Date	Monthly Amount
5/7/2009	$0.160
4/7/2009	$0.154
3/6/2009	$0.175

30-Day SEC Yield	7.33%

Tax Equivalent Yield	
Tax rate 15%	8.62%
Tax rate 25%	9.77%
Tax rate 28%	10.18%
Tax rate 33%	10.94%
Tax rate 35%	11.28%

The final two tables provide a sector breakdown of the municipal bond portfolio, as well as a breakdown of the credit quality of the bonds, as rated by Standard & Poor's. Notice that the healthcare sector comprises 22.3% of the portfolio. As noted previously, hospital bonds have historically had among the highest default rates for municipal bonds; however, even assuming hospital bonds comprise the entire fund, the economic loss per annum, based on historical results, would be almost negligible.

Sector Breakdown

Healthcare	22.3%
Industrial Development	16.2%
Special Tax	15.4%
Airports	13.2%
Transportation	8.3%
Tobacco	5.8%
Leases	3.9%
Power	3.8%
Education	2.8%
Local Government	2.4%
Water & Sewer	2.2%
State General Obligation	2.1%
Housing	1.2%
Resource Recovery	0.4%
Total	100%

Credit Quality

Investment Grade	BBB	25.1%
Non-Investment Grade	BB	24.1%
	B	9.8%
	CCC	9.1%
	CC	0.7%
	C	0.1%
	Not Rated	31.1%

Investment Summary

A pairs trade in which the investor goes long the Market Vectors High-Yield Municipal Index ETF (HYD) and short the Vanguard Extended Duration Treasury Index ETF (EDV) exploits the current yield spread between high-yield municipal bonds and long-term Treasury securities. The yield-to-worst of HYD is 9.3%, which is 225% of the prevailing 30-year Treasury rate of 4.14%. If this spread were to narrow to, say, half this amount, the pairs trade investor would double his or her money.

One can reasonably expect long-term Treasury yields to increase, given that the current 4.14% yield is near an all-time low following the "flight to quality" during the meltdown of the financial markets in late 2008. The propensity of the U.S. Congress to increase deficit spending has resulted in increased government borrowing, which should, over time, decrease Treasury prices. Moreover, the increased borrowing is in bonds heavily

weighted toward the long term, which is reflected in the Treasury's recent decisions to significantly increase the frequency of 30-year bond issuances. This increase in supply should provide further downward pressure on prices. If one believes 30-year Treasury yields will approach historically normal levels, perhaps the best way to profit from such a development would be to short a portfolio of long-term STRIPS, which, as zero-coupon instruments, have the highest sensitivity to interest rates.

The long position in HYD reflects the assertion that the market is improperly valuing this segment of municipal bonds. The market has discounted a negative scenario that is unlikely to materialize. Given historical default rates on high-yield municipal bonds, a portfolio of these securities should experience an almost negligible economic loss each year – in the vicinity of 6 basis points, or even less.

Given the opportunity to profit from the yield spread between high-yield municipal bonds and long-term Treasuries, a pairs trade involving a long position in HYD and a short of EDV is recommended at this time.