

***A Trap for the Unwary — An
Opportunity for the
Well Advised***

***Low Interest Rates and
the New Tax Act***



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MDE Wealth Management

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INTRODUCTION

As investors exited the equity market during the 2000-2002 bear market, they bought bonds in droves in a flight to perceived safety. This increased demand for bonds across the maturity spectrum, coupled with aggressive lowering of short-term interest rates by the Fed, drove interest rates to their lowest levels in over 40 years. In spite of a recent sell off in the bond market, as we write this paper on August 1, 2003, rates still remain near multi decade lows. While we cannot make a timing call as to when or to what extent interest rates will increase, with rates at or near historical lows, one could logically infer that the risk/reward equation seems to have shifted. In general, high quality bonds now seem to carry downside risk disproportionate to their return potential. On a relative basis, one may view the bond market today as having reached a level of excess valuation, just as the stock market reached in its 1999-2000 bubble. But in our experience, many investors tend to view bonds as being essentially risk-less and do not fully appreciate the factors that affect total bond returns.

As interest rates have been declining, fortunately for investors, so have tax rates—especially the tax on dividends. These lower tax rates create opportunities for investors to rethink their fixed income strategies and restructure their portfolios to mitigate the risks in the bond markets and capture the opportunities created by the new tax law. We believe a preemptive discussion of these topics is timely, and will prove to be beneficial.

RECOMMENDED STRATEGIES

We have created several unique strategies that will help investors take advantage of the hidden opportunities that exist in this difficult fixed income environment. The following is a brief description of each recommended strategy with a more detailed explanation and rationale for each to follow:

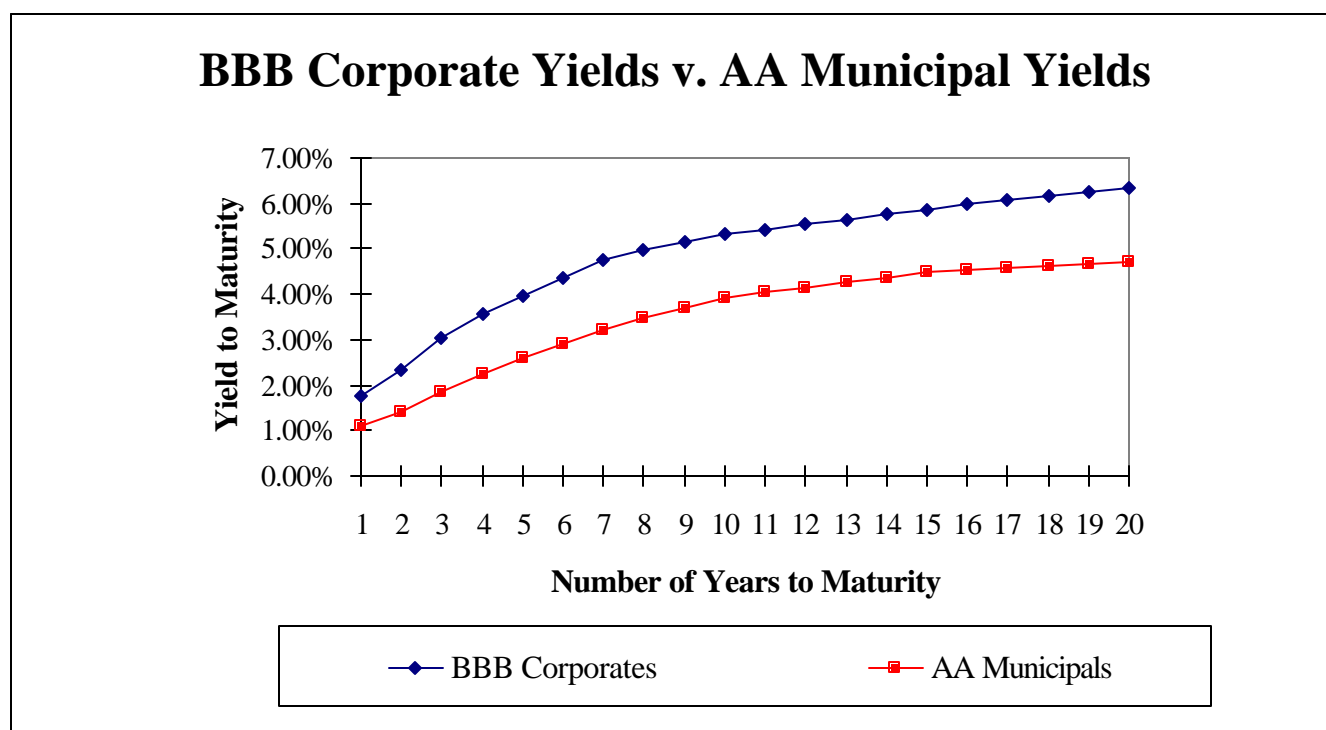
1. Reallocate all or part of a municipal portfolio to a structured investment grade taxable portfolio—taking advantage of credit spreads and lower tax rates to increase after tax yields.
2. Revise *asset location* strategy by investing IRA and other tax deferred account balances in an investment grade taxable bond portfolio, and a like amount of municipal bond portfolio in a combination of high dividend common and convertible preferred stocks, to improve after tax returns.
3. Reallocate part of money market balances into an Ultra Short-Term Fixed Income Fund to substantially increase yield in exchange for some modest fluctuation in principal.
4. Restructure laddered bond portfolio to an optimized barbell portfolio with intermediate maturity to take advantage of the current steep yield curve and the convexity at certain points in the curve.
5. Abandon a passive buy and hold laddered municipal bond approach in favor of an actively managed portfolio so as to take advantage of the continually evolving conditions in this historically low interest rate environment.

Before we delve directly into these strategies, we must first take some time to better understand the much misunderstood dynamics and the risk/reward equation in today's bond market.

BOND YIELDS VS. TOTAL RETURN

Many investors naively assume that the current yield, or percentage of cash flow return they receive on their bond portfolio, is equivalent to their total return. However, this is not an accurate reflection of the total portfolio return. The current yield only represents the coupon divided by the current price. Given the appreciation in the bond market over the past several years, current prices for bonds purchased several years ago are substantially above par. It is axiomatic that this premium will evaporate as bonds move to maturity.

Although an older municipal bond portfolio may be generating cash flow or current yield of 4%-5% per year, the real return of the bond portfolio is actually substantially less. The market place sets the current return parameters for all bonds whether newly or previously issued. By definition, these returns must be reflective of the current interest rate environment which factors in the certainty that, even with stable interest rates, bond premiums will disappear. Therefore, depending on the composition of any given portfolio, the total return must be consistent with that of the current yield curve as reflected below.



Yield curve data as of July 24, 2003

PRINCIPAL RISK IN A RISING RATE ENVIRONMENT

Many investors also ignore the mathematical certainty that bond prices decline in the face of rising interest rates. They find comfort in the fact that, barring a default, bonds mature at their face value. But this illogical conclusion ignores the indisputable fact that something that is worth more today will, by definition, be worth less at some point in the future due solely to the mere passage of time.

The degree to which prices are sensitive to a given level of changes in interest rates is a function of *duration*. Duration, sometimes called “effective maturity”, is the effective length of time it takes an investor to get back their principal taking into account coupon payments. Therefore, the duration of a zero coupon bond is equal to its maturity regardless of the amount paid since it makes no annual payments. The duration of a bond with a coupon is less than its maturity, but how much less is a function of both the maturity and the coupon payment. But most importantly from the investor’s perspective, duration is a measure of risk and sensitivity to interest rate movements.

As a broad concept for thinking about bond risk, for each year of duration, a 1% change in interest rates causes a 1% change in the bond price. By way of an over-simplified example, a bond with a duration of 5 will decline by approximately 10% in the face of a 2% increase in interest rates (i.e. $5 \times 2\%$); a bond with a duration of 10 will decline by almost 20% in the face of a 2% rise in interest rates (i.e. $10 \times 2\%$), and so on. Therefore, long-term bonds are far more sensitive to interest rate changes than short-term bonds.

OPTIMIZING THE RISK/REWARD EQUATION

As illustrated by the yield curve above, short term rates are dismal---in most cases not even matching inflation. And with long rates at multi decade lows, long term bonds have far too much risk for their return in the face of rising longer term interest rates. So what is a fixed income investor to do?

Given the steepness of the yield curve, taxable investors in laddered municipal bond portfolios, which extend out 15 years or more, are taking on too much risk for too little reward. Since we cannot accurately predict the future movement of interest rates, we are not advocating a dramatic bet on or against either extreme end of the yield curve. However, rather than maintaining a static laddered portfolio in this dangerous interest rate environment, we believe a better risk/reward strategy would be to optimize the current yield curve by proactively restructuring the ladder into a barbell portfolio. While there is no perfect structure, an optimized portfolio might have approximately 30% of the bonds at the extreme short end of the barbell (e.g. 0 - 2 years), so as to provide liquidity in the face of rising interest rates. The short end of the portfolio would have minimal sensitivity to rising interest rates and would provide liquidity to take advantage of higher yields in a higher interest rate environment. The remaining 70% of the portfolio might be invested in intermediate bonds with maturities between 8 and 13 years. And since the environment is constantly changing, we believe an actively managed, rather than an unmanaged buy and hold approach, is a much safer bet.

At first glance the heavy weighting toward the intermediate/longer end of the barbell may seem counter intuitive since these bonds seem more “risky” in this low yield environment. But as illustrated by the yield curve above, yields begin to flatten out in the 11-13 year range. Investors receive very little return for taking on substantial incremental risk beyond this point. Therefore, there is no rationale for investing in longer bonds. In contrast, the yield curve is most steeply sloped between years 3-8. This part of the curve will likely experience the greatest relative rise in rates as the curve flattens. It too should be avoided.

There are several other subtle factors which also make the case for this structure. The first goes to the steepness of the yield curve. There is a 2.66% average increase in yield to maturity (“YTM”) from the short end of the portfolio, i.e. the 1-2 year maturities, to the intermediate/longer end of the barbell, i.e. the 8-13 year maturities. Although the short end of the curve provides maximum flexibility and principal protection, no one can predict when and to the extent interest rates will increase. Therefore, there is a big opportunity cost to being 100% invested on the short end of the curve. Said another way, if interest rates do not increase, there is a big “reinvestment risk” by continuing to roll bonds with very short maturities. And according to Fed Chairman Greenspan, short rates may stay low for another 1-2 years.

While a 2.66% incremental return may seem small compensation for the increase in maturity at the intermediate/longer end of the barbell, a second factor to consider is the *roll down* of the portfolio. Given a positively sloping yield curve, in a constant rate environment, bond prices increase after the first few years after purchase. This is because the coupon on the bond is constant. But as bond maturity shortens, its return increases relative to its now shorter maturity date. This phenomenon continues until approximately the midpoint of a bond's life. At that point, the premium begins to evaporate as the bond moves back toward par as it approaches maturity. The effect of increasing prices from this *roll down or bond roll* serves to partially mitigate any downward price pressure from increasing interest rates. By trading bonds out of portfolios at optimum times, active managers can capture the inherent price appreciation as bonds roll down the curve.

Finally, another concept supporting this recommended portfolio structure is *convexity*. While a detailed discussion of convexity is well beyond the scope of this paper, bonds with *positive convexity* depreciate at a slower pace in a rising interest rate environment relative to bonds with *negative convexity*. At this point in time, bonds in the 8-13 year part of the curve have positive convexity so they will be less sensitive to a rise in interest rates than one would think by merely considering the duration. By taking advantage of this positive convexity, investors in an actively managed bond portfolio, which proactively responds to changing market conditions, can soften the interest rate risk and still achieve higher returns by maintaining a slightly longer duration.

INVESTMENT OPPORTUNITIES UNDER THE NEW TAX LAW

The new tax law reduced marginal rates across the board. To facilitate further discussion on this point, it is useful to remind ourselves of how new tax rates apply to various levels of income for married couples filing joint tax returns.

10.0%	\$0	to	\$14,000
15.0%	\$14,001	to	\$56,800
25.0%	\$56,801	to	\$114,650
28.0%	\$114,651	to	\$174,700
33.0%	\$174,701	to	\$311,950
35.0%		Over	\$311,950

The relevance of these new tax rates, and a point on which we will focus later in this paper, is whether, and to what extent, an individual investor is still better off in municipal bonds. Or would taxable bonds provide a better after tax return vehicle? The answer to these questions may depend, in part, on the structure and composition of a taxable bond portfolio as well as the investor's perception of risk.

THE IMPORTANCE OF THE DIVIDEND TAX CUT

The centerpiece of the new tax law is the reduced tax rate on dividends. Under the new law, dividends are now taxed at 5% for those individuals in the 10% and 15% ordinary income tax brackets and 15% for those taxpayers above this level. This means that state taxes aside, a stock portfolio with a 4.5% dividend yield produces a 3.83% after tax yield for taxpayers in the highest tax bracket.

Based on the current yield curve, an investor would need to purchase a portfolio of municipal bonds with a 10.41 year average maturity, and an 8.59 year average duration, to match this after tax yield. Therefore, a 1% rise in interest rates would cause such a bond portfolio to decline by about 8.5%; a 2 % rise in rates would cause it to decline in value by about 17%—clearly not a risk-less investment.

As we have all become painfully aware over the past three years, declines of this magnitude in the stock market also are certainly very possible. However, in a well diversified portfolio of high quality, high yielding and low P/E stocks, such declines may be less probable over the next several years than a 1% to 2% increase in 10 year interest rates. While this is not an unqualified assurance, it is a highly probable scenario in light of the current post bubble levels of the stock market and the current historically low level of interest rates.

A hybrid strategy between maintaining a pure bond portfolio and a pure portfolio of high dividend common stocks would be a portfolio of certain preferred or convertible preferred stocks. Many preferred stock issues will provide investors with the same tax benefits as common shares since their dividends also will be subject to tax at a top 15% rate. Convertible preferreds also provide additional upside relative to straight preferred stock, but not all of the upside of the underlying common. Both convertible preferred stock and straight preferred stock will be far less volatile than the underlying common, thereby providing a risk level between stocks and bonds. However, this increased safety comes at an opportunity cost since any appreciation on straight or convertible preferreds in a rising stock market will be substantially dampened relative to the underlying common.

We are not suggesting that high dividend stock is a pure fixed income substitute. Nor are we advocating a wholesale shift from bonds to high dividend common or preferred stocks. Such a shift in a vacuum would cause a distortion in the risk/reward equation of the overall portfolio. However, as will become clear below, these strategies are tools that should be employed as part of an overall portfolio restructuring.

A HIDDEN SECRET—THE IMPACT OF DIVIDENDS ON OVERALL TAX RATES

For the investor whose sole source of ordinary income is dividends, (i.e. the taxpayer who has no earned, deferred compensation or pension income), the new tax law creates other opportunities for increasing net after tax income from fixed income investments. Since dividend income is subject to its own distinct tax calculation, the first dollar of non-dividend income starts riding up the tax brackets beginning at the lowest marginal rates. Therefore, even if a taxpayer has substantial dividend income, absent any other source of ordinary income, their first dollar of ordinary income is eligible for taxation at the lowest tax rates. This means that long time municipal bond investors should rethink their commitment to a pure municipal bond strategy since the tax exemption is less valuable at the lowest levels of ordinary income.

For example, an AA rated municipal bond portfolio with a 5 year duration currently has a YTM of approximately 2.65%. A well structured taxable investment grade portfolio with an average rating of A and a similar duration, comprised of a combination of corporate, agency and Treasury bonds, would have a YTM of approximately 5.2%. While admittedly this is not a pure “apples to apples” comparison in terms of credit structure, the sample portfolio still represents an excellent credit bet—especially at this point in the business cycle.

Assuming \$6,000,000 was invested in such a portfolio of investment grade bonds, at a YTM of 5.2% an investor would earn \$312,000—the bottom level of the 35% tax bracket. Assuming no other income besides dividends, which do not serve to increase the tax rate applicable to non-dividend income, the federal tax on this amount would be \$84,388, or an effective rate of 27%. This would leave the investor with \$226,612 in after tax income. This equates to an after tax return of approximately 3.8%—well in excess of the 2.65% return on a 5 year duration municipal bond portfolio. Therefore, this is a hidden opportunity available in the new tax law to take advantage of the dividend tax reduction in ways that are not immediately obvious.

And, even for investors with substantial earned or pension income who are in the 35% marginal bracket, a 5.2% taxable return equates to a 3.38% after tax return. This still represents a 27% increase in after tax yield over the municipal portfolio.

INCREASE YIELDS ON LIQUID CASH RESERVES

Investors can apply these same principles toward increasing the anemic returns available on cash through money market accounts. Today, a typical tax-exempt money market account yields approximately 0.75%—far less than the current 2%-2.5% rate of inflation. Many investors have been content with these non-existent returns, preferring them over the prospect of real principal loss in the equity markets, and for that matter, the principal risk in the intermediate/long-term bond markets. This risk aversion has driven cash balances in bank accounts and money market funds to about \$6 trillion nationally.

Just as there are alternatives to enhancing yields in municipal bond portfolios by using taxable instruments with a creative structure, so too are there opportunities to enhance returns on cash. There exist today several high quality *Ultra Short-Term Fixed Income Funds* that are a viable alternative for part of an investor's cash reserves. Those funds which we deem appropriate would have an average credit rating of AAA, a duration of well less than one year and employ various sophisticated techniques to produce a current pre tax yield of over 3.5%. At a 35% tax bracket, a 3.5% return would equate to 2.27% after taxes—almost three times the after tax return on money market funds.

But like everything else in life, this is not a free lunch. While money market funds maintain a constant value of \$1.00 per share, almost all Ultra Short-Term Bond Funds do not. However, over the past 10 years, one of the funds we would recommend has never posted a net loss for any calendar quarter, and another posted only one quarterly loss over this same time period—losing 0.57% during Q2 1994, which was a period of rapidly rising rates. Since short term interest rate movements can be violent and unexpected, there could be a near term loss of principal, albeit modest. If the money remains in the fund for the next six to twelve months, the yield advantage of the fund should replace the principal loss and provide a net advantage over money markets. Therefore, we would not advise placing cash in short term bond funds if this cash *must* be used within the next six to twelve months. However, given the large yield advantage over money market funds, even if the fund lost 2% of principal value, over a 12 month holding period its net after-tax return would still be approximately .97%—still higher than the yield in tax-exempt money market funds.

USING ASSET LOCATION TO ENHANCE TOTAL RETURN

A further variation on the two themes discussed above is to change the *asset location* of various assets. Asset location simply refers to where assets are *located* or how they are titled. Under the old tax law, we generally advised clients to invest their IRA, or other qualified plan balances, in equities for long term tax deferred capital appreciation. We especially would attempt to *locate* the high dividend part of the client's portfolio in the IRA to receive tax deferred compounding on dividends that would be otherwise taxed as ordinary income. Conversely, we advised clients to invest their fixed income portfolios outside their IRAs in municipal bonds given the higher after tax returns generally available to most investors in municipal bonds under the old tax law.

But as we have discussed above, the new tax law has changed all this. Without changing an investor's *asset allocation*, that is the mix between stocks and bonds, we would recommend they change their *asset location*, i.e. how these stocks and bonds are titled. By way of illustration, assume an investor has an IRA valued at \$1,000,000 which is invested in equities. We would recommend that the equities be sold and replaced with an

investment grade portfolio of taxable bonds similar to that described above. Such a portfolio would produce a *tax deferred* YTM of approximately 5.2%.

So as to not distort the overall asset allocation, we would recommend that a corresponding amount of municipal bonds be liquidated and invested in a combination of high dividend common and convertible preferred stock. Assuming these two portfolios have an average dividend yield of 4.5%, at a 15% dividend tax rate the portfolio would produce a net after tax yield of 3.83%—some 45% more than the 2.65% YTM on a municipal bond portfolio with a duration of 5 years. And like the equities liquidated in the IRA, this portfolio would have long term capital appreciation potential which would remain tax deferred until the underlying stocks are sold. At that time, to the extent that they could not be offset by capital loss carryforwards, any recognized long term gains would be taxed at a preferential 15% rate, as opposed to the ordinary income tax rates of as much as 35% that are applicable to IRA distributions.

Another subtlety to this strategy is the benefit of liquidating appreciated municipal bonds to implement this strategy. After the 2000-2002 bear market, many investors have substantial capital loss carry forwards. Therefore, in choosing which bonds to liquidate, investors should sell their most appreciated bonds so as to lock in this appreciation before it erodes. And assuming an investor has capital loss carry forwards, all gains recognized in the bond portfolio will be effectively tax free—thereby enabling the investor to reinvest 100% of the gross liquidation proceeds.

CONCLUSION—TURNING LEMONS INTO LEMONADE

There is an old adage which says, “...when life gives you lemons, make lemonades.” Rather than bemoaning the low interest rate environment, we looked for and found opportunities to optimize the steep yield curve. Rather than looking at the tax law in a superficial manner, we looked at it creatively and found ways to maximize its benefits, whether they were intended or not. Rather than assuming that taxable investors should only invest in municipal bonds, we looked at various taxable bond structures and found one that optimizes the risk/reward equation based on today’s environment. And rather than forgetting about tax losses accumulated by investors over the past three years, we found a way to use them to further enhance value.

Today’s bond market is truly a trap for the unwary. But the tax law is filled with hidden opportunities for those who know where to look. By side stepping these traps, and taking advantage of the hidden opportunities, all investors should be able to turn lemons into lemonade.