Investing with a Tax-Efficient Eye

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In this presentation, I discuss a number of transactions, some of which may be unfamiliar. By including the unfamiliar, I hope to open advisors’ minds to new ways of managing taxable clients’ portfolios through the use of innovative transactions to improve after-tax performance. In my experience, portfolio managers tend to resist complex transactions, especially those involving derivatives and that require time and patience not only to explain to clients but also to properly construct. But I believe that advisors owe it to their clients to explore ways to improve the tax efficiency of their portfolios, whether their holdings are individual securities or collective investments, such as mutual funds and hedge funds. Fortunately, anomalies within the U.S. tax code enable savvy advisors to improve their clients’ after-tax performance.

Academic Findings
Groundbreaking research by Arnott, Berkin, and Ye found that investors should care about taxes and that they ought to have a disciplined approach to harvesting tax losses.1 But do individual investors care about taxes? Two studies of tax efficiency of individual investors’ portfolios shed some light. Barber and Odean used data from 1994 and 1998 to investigate the tax awareness of individual investors.2 For part of their study, they analyzed stock trades at a large discount brokerage house of tens of thousands of individual investors, many of whom had both taxable and tax-deferred accounts, such as individual retirement accounts and Keogh plans. They found that most individuals could improve their trading efficiency. For example, taxable investors took their gains more frequently than their losses. Interestingly, the researchers further observed that this behavior was almost double for married couples compared with the behavior of singles.

Ivković, Poterba, and Weisbenner studied whether tax incentives influence how investors realize capital gains and losses. They used the same trading data as Barber and Odean for a large discount brokerage house but for a six-year sample period from 1991 to 1996.3 Ivković, Poterba, and Weisbenner compared the portfolio transactions made by the same person in two different accounts: the regular, taxable account and the tax-deferred account. They found stronger evidence than Barber and Odean did that investors care about tax. For example, they found a higher tendency for capital gains to be unrealized.

1 Robert D. Arnott, Andrew L. Berkin, and Jia Ye, “How Well Have Taxable Investors Been Served in the 1980s and 1990s?” Journal of Portfolio Management (Summer 2000):84–94. See also Jeffrey Horvitz’s presentation in this proceedings, where this research is summarized.
in taxable accounts than in tax-deferred accounts. This tendency was stronger for larger transactions and intensified as the investor’s holding period lengthened. Individual investors were somewhat efficient in that tax-loss selling occurred throughout the year, although it was most pronounced in December, especially if an investor had realized capital gains earlier in the year. Collectively, this analysis of the same dataset implies that investors trade in ways that are tax efficient. Nonetheless, Ivković, Poterba, and Weisbenner were disappointed: At times, they found tax-exempt municipal bonds in the IRA account, meaning that asset allocation between taxable and tax-deferred accounts was suboptimal.

So, if these studies suggest that investors care about tax, then so should brokerage firms. In fact, given that clients could be trading in a suboptimal fashion, advisors perhaps have a duty to educate them. That is, advisors can find ways to implement tax-efficient trading strategies without distorting the investor’s performance. Savvy practitioners on Wall Street have devised ways to replicate positions and synthesize investments. Pretax returns for the various positions and instruments may be the same, but the after-tax returns can be quite different. Thus, some investors ought to re-evaluate their positions and instruments to maximize their returns.

U.S. Bond Strategies

Most brokerage firms, individual brokers, and investment advisors are well aware of bond swaps—the simultaneous sale of a bond with capital losses and purchase of another, similar bond. Near the end of the tax year, investors may hear: “Get out of your muni bond and switch into another bond and take the loss.” Sometimes that transaction is genuinely in the client’s best interest. But without being too cynical about the brokerage industry, of which I am a part, I would like to point out that getting out of one bond and into another provides a decent commission. Nevertheless, when interest rates are very low, investors should take their long-term gains on taxable bonds and then immediately repurchase those same bonds; there is no wash-sale rule for gains. Keep in mind that a brokerage house cannot charge an investor too much to sell a bond and to repurchase it immediately.

Although I am talking about trying to be tax efficient, advisors do not want to distort an investor’s results. For example, say that several years ago an investor bought a U.S. Treasury note at par ($100) when interest rates were at 5 percent. Today, interest rates are at 2 percent and the note matures in one year. Theoretically, that bond will trade at $103.

If the investor does nothing, then in one year’s time the $5 coupon will be taxed as ordinary investment income at rates as high as 35 percent. But if the investor sells the bond today at $103, and because it has been held for more than 12 months, the long-term capital gains tax of 15 percent applies to that $3. The wash-sale rules do not prevent an investor from realizing a capital gain. If an investor sells something and buys it back within the statutory 31 days and if the investor has a capital gain, the U.S. government is only too pleased to tax the investor on the gain. So, it is all right to sell the bond and buy it back a second later if the investor has a gain.4

When the investor repurchases this bond at $103, it trades at a premium because it will mature one year from today at $100. Under Section 171 of the IRS code, the federal government allows the investor to amortize the bond premium of $3. When the investor pays tax on investment income, the amount payable will be based on a gross 5 percent coupon, but the investor can deduct $3 of amortization against the $5. In essence, the investor is paying tax on only $2 of net interest rather than the full gross $5.

So, the investor faces two choices:
- Do nothing and pay a 35 percent ordinary investment income tax on $5, making the total tax payable $1.75, or
- Sell the bond and buy it back immediately, pay 15 percent long-term capital gains tax on $3, and pay a 35 percent tax on only $2, making the total tax payable $1.15.

Obviously, the investor is better off voluntarily paying the 15 percent long-term capital gains tax today in order to pay lower total tax in the future. Solely by selling and repurchasing this hypothetical government or corporate bond, this investor’s tax bill is more than one-third lower than if he or she had done nothing. Clearly, this decision will influence the bond’s after-tax performance.

If the bond in question were to mature 10 years from now, the investor could end up paying a large amount of tax today with the benefit spread out over the next 10 years. Therefore, the correct analysis would include the calculation of an internal rate of return (IRR) to derive the estimated benefit. Our analysis at Twenty-First Securities shows that if an investor lives in a high-tax state, such as New York (remember that the investor will pay state tax as well as federal tax), the after-tax IRR on a government bond due in 10 years is 11.72 percent.5

4If the bond swap is done for tax purposes to realize a capital loss, the investor must avoid swapping into what the IRS deems to be the same security or the wash-sale rules will apply.
5Our website has an online calculator that can be used to conduct a similar analysis: www.twenty-first.com/bond/index.htm.
includes an eighth of a point for friction costs of getting in and out. If the bond were due in only one year, the after-tax IRR would become a breathtaking 74.96 percent—for doing nothing more than resetting the holding period.

The IRR analysis and sell/repurchase decision apply only to government bonds and corporate bonds, not to tax-free municipal bonds. One universal tax decision rule holds with respect to municipal bonds: Do not engage in the sale and repurchase of the bond prior to maturity.

Keep in mind an important caveat when analyzing a government bond: Effectively, the investor elects to pay a capital gains tax in the state where that interest income would have been tax-free later. Some nuances make the analysis more difficult than one might think.

**S&P 500 Index Strategies**

A broad basket of large-cap equities, which can be proxied by the S&P 500 Index, is another basic building block that investors use in their portfolios. Please note that my discussion in this presentation is not about how to manage the individual securities in investors’ portfolios more efficiently but, rather, how to choose the investment vehicles that are more efficient from a tax perspective.

Investors in recent years have embraced Standard & Poor’s Depositary Receipts (SPDRs, or “Spiders”). SPDRs and the newer exchange-traded funds (ETFs), such as iShares, are a cost-effective way to quickly build a diversified portfolio. They are generally tax efficient but only for long-term investors. As Jeffrey Horvitz explained in his presentation, if an investor defers capital gains until death, then (as the tax laws read today) capital gains taxes can be forgiven upon the death of the investor. So, if an investor can buy SPDRs or an ETF or even a mutual fund that minimizes distributions each year, then all the investor’s unrecognized gains continue to grow and possibly can be forgiven at death.

It is estimated, however, that between 80 and 85 percent of all trading in SPDRs and iShares is done for fewer than 90 days. Therefore, profitable investors would be taxed at 35 percent, the rate for short-term capital gains. The implication is that investors are drawn to these popular vehicles not by the prospect of tax efficiency but, rather, by aggressive marketing campaigns. To get any tax efficiency, investors must commit to an investment horizon greater than one year. Indeed, at the extreme, the tax efficiency is maximized when an investor purchases a SPDR or ETF and holds it forever. Still, advisors can find tax-efficient vehicles for those taxable investors with short time horizons.

**Time Horizon Impact on Strategies.** Investors can own the S&P 500 in many ways, so at Twenty-First Securities, we determine the most tax-efficient investment vehicle by time horizon, as shown in Figure 1.

- **Horizon less than one year.** If an investor will be in and out of the S&P 500 in less than one year, then as I have explained, the SPDR will be taxed at 35 percent. But if the investor seeks exposure through exchange-traded index options, realized gains will be taxed at a blended capital gains rate of 6%

6See Jeffrey Horvitz’s presentation in this proceedings.

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**Figure 1. Effect of Time Horizon on Choice of Investment Vehicle**

- **Long Position**
  - What time horizon does the investor have?
    - Less than 1 year: Futures or Broad-Based Options
      - All gains and losses are treated as 60 percent long term and 40 percent short term.
    - 1–5 years: Equity Swap
      - Cost to carry is deductible. Losses are ordinary. Gains are long term.
    - More than 5 years: Outright Ownership
      - Interest expense is deductible to the extent of investment income. Gains and losses are not recognized until realized.
only 23 percent. So, if an investor will be invested for less than a year, index options make a lot of sense. Compared with a mutual fund, options do not distribute any gain, so even if a stock leaves the S&P 500, there will not be a recognized gain on an index option; a mutual fund will have some gains to pay as it removes that stock from its portfolio. The return of the S&P 500 can be replicated, more or less, with a deep in-the-money index option (options that are in the money behave more like the underlying than those that are out of the money). Although the pretax returns of a SPDR and an index option are the same, the after-tax returns will be different because of the quirkiness of U.S. federal tax law.

So, with index options, the investor chooses to be taxed at 23 percent if he or she makes money. If the investor loses money, however, he or she is burdened because only 40 percent of the capital loss will be calculated at the higher short-term tax rate of 35 percent and 60 percent of the loss will be calculated at the lower long-term tax rate of 15 percent, again yielding a blended tax rate of 23 percent.

My discussion so far has been on bullish sentiment—when one thinks the market will go higher. I will now discuss tax efficiency using options for bearish strategies. Investors consider short sales to be un-American (and so does the IRS). If an investor makes a short sale, no matter how long the holding period until a gain is realized, it will always be taxed as a short-term gain. When the investor owns a listed put from an exchange, the capital gains will be taxed at the now-familiar blended rate of 23 percent. But if the investor had bought a put from a dealer, then any short-term gains would have been taxed at 35 percent and the long-term gains would have been taxed at 15 percent, the only difference being the issuer of the contract.

Horizon between one and five years. Equity swaps are available only to investors with a high commitment, such as $1 million or more; they are not available to everybody. But the tax features of an equity swap are nonetheless interesting.

What is an equity swap? It is a private contractual agreement to exchange cash flows at intervals over a predefined period. A swap has two counterparties, and each agrees to make the contractual payments to the other over the life of the swap. In this way, an equity swap, indeed all swaps, involves credit or counterparty risk. Every swap involves an unknown or floating payment. In an equity swap, that payment could be the total return (dividends and capital gains) on the S&P 500. In exchange for receiving the total return on the S&P 500, the other counterparty pays a fixed return.

In the eyes of the IRS, if an investor makes or takes contractual payments, the payments are taxed as ordinary income or loss. But if the investor terminates an equity swap before it expires, then the swap is taxed like a capital asset. So, the investor can decide how he or she would like to be taxed after knowing the outcome of the investment. For example, if an investor is two years into an equity swap and the market has declined, the investor should not terminate the swap early. He or she should continue to make the contractual payments because the losses will accrue as ordinary losses, rather than as capital losses constrained by the limit of $3,000 per tax year.

In contrast, if the investor had a profit over a holding period longer than 12 months, then he or she should terminate the swap sometime before its expiration. Again, it becomes a capital asset, and the investor recognizes a long-term gain.

I know of no other security for which investors can bank ordinary losses when they lose money, recognize a long-term capital gain when they make money, and have the luxury of deciding when to recognize each of these tax-mitigating strategies.

Horizon more than five years. If the investor is going to hold an investment for more than, say, five years—maybe forever—then he or she should own the asset itself, not a derivative, because most derivative dealers will not write an equity swap for more than five years.

Other Rationales for Various Strategies. Table 1 summarizes the features of some of the alternatives I have been discussing. Notice from the table that economic reasons, as opposed to tax-efficiency reasons, might suggest the use of index options over ETFs. For example, ETFs have management and custodian fees built into them. And ETFs have a slight amount of tracking error against the index that they are designed to mimic; index options do not, provided they are held to expiration. Therefore, based on these reasons, using the listed or the unlisted index options is usually better than using ETFs.

An investor may trade an ETF anytime during the day, but the cost of that trade is the bid–ask spread associated with the cost of buying and selling, as well as a standard stock commission for a roundtrip transaction. But if an investor purchases an open-end fund, it does not have that bid–ask spread; the open-end fund is bought and sold at the net asset value, and generally, an investor would not pay a commission. With options, investors will definitely pay a commission.
At a conference in 2002 at New York University, academic researchers demonstrated that low-cost open-end index funds outperformed SPDRs every year since their inception—both pretax and after tax. I was surprised at the pretax performance, but keep in mind that open-end funds can reinvest their dividends and SPDRs cannot. The after-tax outperformance also surprised me; open-end index funds did pay some distributions. Theoretically, SPDRs are more tax efficient than the open-end funds, but in this study, the distributions were just not big enough to make a difference.

**Mutual Funds with Built-In Losses.** Another strategy worth discussing was pointed out by Mark Hurley of JPMorgan Asset Management’s Undiscovered Managers fund family. If a mutual fund takes capital gains, then these gains must be distributed by the end of the tax year, but if a mutual fund makes capital losses, then these losses can be carried for five years and do not flow through to investors. So, some funds could have a sizable bank of capital losses, which can shelter future gains. I certainly would not suggest screening Morningstar for funds that have the largest amount of losses because it also could suggest that the fund’s manager is poor. But if an investor wanted to invest in an Internet fund, I would certainly suggest buying one that is seasoned with a bank of capital losses rather than a brand-new one without that benefit.

If an investor is going to buy an S&P 500 fund that contractually has to be invested in the constituents of the S&P 500, why would the investor not choose one that had built-in losses? Obviously, these accumulated losses swing from year to year, depending on whether the market is in a bull or bear phase. Purely in terms of tax efficiency, these funds and similar ones would be attractive to taxable investors because the gains would be tax free for quite some time. These opportunities can be explained by behavioral finance: Investors run into these funds at the high, and they run out at the low; the losses are realized, and they become a valuable bank of losses to offset future gains. Remember that a fund can carry forward the losses for only five years, just like any other corporation. So, take advantage of the window of opportunity while it remains open.

**The Wash-Sale Rules.** Earlier in the conference, Jeffrey Horvitz stated that he believes that no meaningfully statistical method exists for harvesting tax losses without distorting investment returns. But I disagree. I cite research conducted by David Schizer, dean of the Columbia Law School, who explains that it is possible to construct “perfect end runs.” A perfect end run means that the economic position of the investment has changed but the investment return has not.

No doubt, getting around the wash-sale rules is tricky. For example, if I own a stock, sell it for a loss, and then buy a call option, that series of transactions will trigger the wash-sale rules, which makes sense if the option is a replacement security. But note that if I bought a stock at $30 and it is down at $20 and I buy any call option, it triggers the wash-sale rules. If I bought a deep out-of-the-money call with a strike price of, say, $100, which certainly is not the same thing as stock ownership, it would trigger the wash-sale rules—just as if I had bought a deep in-the-money call with a strike price of, say, $1, which would be similar to owning the stock.

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**Table 1. S&P 500 Investment Alternatives**

<table>
<thead>
<tr>
<th>Item</th>
<th>ETFs</th>
<th>Open-End Index Funds</th>
<th>Listed Index Options</th>
<th>Unlisted Index Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management fee</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Tracking error</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Commissions on purchase/sale</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Short-term gains taxed at</td>
<td>35%</td>
<td>35%</td>
<td>23%</td>
<td>35%</td>
</tr>
<tr>
<td>Long-term gains taxed at</td>
<td>15%</td>
<td>15%</td>
<td>23%</td>
<td>15%</td>
</tr>
<tr>
<td>Marked to market at year-end</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Distribution of gains</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Possible mispricing</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Trades intraday</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Taxable dividends</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

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8Edwin J. Elton, Martin J. Gruber, et al. show this finding on a pretax basis in “Spiders: Where Are the Bugs?” and James M. Poterba and John B. Shoven draw after-tax conclusions in “Exchange Traded Funds: A New Investment Option for Taxable Investors.” Links to these papers can be found at www.twenty-first.com/newsletter/newsletter_summer2002-4.htm.

In contrast, if I have a short sale that I lost money on, I can cover my short and buy a put. Symmetry would indicate that this transaction should not be allowed under the wash-sale rules because selling a long and buying a call is no different from covering a short and buying a put. Yet again, this example demonstrates the anomalies within the IRS tax code. So, until the law is changed, there are tax-efficient strategies that can be exploited.

Other ways do exist to work with the wash-sale rules. An obvious one is not to trigger it in the first place: Sell the stock and be out of it for 31 days. But if during those 31 days the share price skyrockets, the investor will probably regret being penny wise and pound foolish, and unlucky at speculative trading.

Some tax practitioners suggest doubling up. If an investor owned a thousand shares trading at a deep loss, the investor could buy another thousand shares of this loser stock and hold two thousand shares for 31 days. At the end of 31 days, the investor could sell a thousand of the older shares, not the ones purchased 31 days ago. This way, the investor can realize his or her loss within the wash-sale rules by owning twice as much of it. I believe that this is a scary position because of the overexposure for those 31 days, and the investment performance will certainly be distorted.

Nothing exists in the tax law, however, that says investors cannot totally remove the risk of owning that second lot of stock. If an investor buys a stock and then sells a call and buys a put that has the same strike price as the call, the investor can eliminate his or her performance risk. To illustrate, if you sell a call with a strike price of $30 and buy a put with a strike price of $30, then stocks trading above $30 at expiration will be taken away from you as the call writer. Alternatively, if the stock trades below $30 at expiration, you will put it to the put writer. Buying a stock, selling a call, and buying a put with the same strike price is called a forward conversion. It is a risk-free transaction that, in theory, should give a T-bill rate of return.10

The investor is still doubling up but without enduring the performance risk. And the investor earns an interest-like return on the forward conversion. At the end of the 31 days, one of the options will be exercised and the investor will deliver the highest basis shares against that option and thereby realize his or her loss. This strategy must be done before 28 November, however, if the investor wants the loss in the current tax year. Remember that the loss will not be realized until after 31 days and either one of the options has been exercised. Unfortunately, most investors harvest their losses in mid-December, which is too late for this strategy.

Interestingly, if investors miss the 28 November deadline, they can still come close to creating a perfect end run by voluntarily triggering the wash-sale rules. I will explain: The investor owns a stock bought at $50, and it has gone down to $20. The investor then sells the stock at $20 and buys a call option with a strike price of $30 for $1, purposely triggering the wash-sale rules. Why? The cost basis on that option will go from $1 up to $31. Immediately after buying the call, the investor repurchases the stock at $20. Remember, the wash-sale rules can be triggered only once. The timing here is crucial:

1. Sell stock.
2. Buy call.

For some period of time, the investor will have more exposure to that stock because he or she also holds a call option. I recommend that investors hold that call option for a day or two. Obviously, this strategy is not a perfect end run because the investor is forced to own both the option and the stock for a few days. But if the investor delays recognizing losses until December, this approach is an alternative, although suboptimal, strategy.

In addition, because a significant 20 percentage point difference exists between what long-term losses are worth and what short-term losses are worth, the investor’s holding period could be altered so that a long-term capital loss is transformed into a short-term capital loss, resulting in a larger bank of short-term losses that can offset short-term gains elsewhere in the portfolio. Here is how it works:

1. Sell the stock that has a long-term capital loss.
2. Buy a call on that stock.
3. Exercise the call.
4. Sell the stock acquired through the call exercise.

This exercise of the call started a new holding period, and investors must buy the call within 31 days after they have taken the long-term loss.

Tax Inefficiencies of Hedge Funds

Hedge funds are tax inefficient: They recognize a lot of short-term capital gains, triggering taxable events. I recently wrote about another, more insidious tax problem with hedge funds.11 When an investor receives his or her Schedule K-1 from a hedge fund,

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10Put-call parity on a European option (a put or a call that can be exercised only at expiry) says that, in theory, a risk-free investment can be created synthetically by selling a call, buying a put, and owning the underlying security. The risk-free investment will, naturally, earn the risk-free rate of return.

many times the accompanying cover letter assumes that the hedge fund is a trader. A trader is allowed to net its management fees against its gross profit; an investor is not. If the fees flow through (rather than being netted), they are treated as miscellaneous itemized deductions, which many high-net-worth investors cannot use.

Suppose that an investor owns a fund of funds, and a fund of funds clearly is not a trader. Assume that the fund of funds earned 11 percent in its underlying hedge fund portfolios and that it charged a 1 percent management fee and a 10 percent performance fee, leaving a net return of 9 percent. What actually goes on the investor’s IRS Schedule K-1 (if completed properly) is that the investor is taxed on a gross rate of return of 11 percent, even though the investor earned a net return of only 9 percent. In other words, 11 percent is taxable income and 2 percent is miscellaneous itemized deductions that the investor probably cannot use, creating a tax on phantom income.

This is more important today than in the past because when investors were making 20 percent and 30 percent returns on their hedge funds, they really did not care much about taxes. Now that returns have come down, investors are more aware of what they can do around the edges to improve their returns. In addition, the IRS hedge fund audit manual prioritizes the challenging of trader status, and I believe that investors will have to amend their past tax filings to their disadvantage.

From a tax perspective, investors should invest in hedge funds so that they are taxed on a net basis, not a gross basis. One solution is to use offshore life insurance, in which investors pay on their profits only when they take the money out on a net basis. I am not enamored with these vehicles because no one knows the future tax rate that will apply when the money is taken out. (When I started working, tax rates on investment income were 70 percent and had just come down from 80 percent. We are now in a lull with rates at 35 percent. I am not sure that paying tax at 35 percent is so bad versus deferring into the future, when rates could be much higher than they are today.) But if the investor is going to leave the money offshore until he or she dies and then leave the money to his or her children, then the investor’s estate will not pay any tax, provided that it is held as an insurance trust. But for shorter time periods, insurance does not make a lot of sense.

Another solution is to invest in an offshore hedge fund entity; this vehicle is typically used by tax-exempt investors and non-U.S. citizens. Of course, nothing is stopping a U.S. investor from entering into an offshore hedge fund entity. Because it is an offshore corporation, it can be bought and sold at its net asset value. Therefore, investors pay tax only on the profits that are made on a net basis. But there is a downside. Because the entity is deemed a passive foreign investment company (PFIC), investors are allowed to defer and compound their taxable gains in that entity. But when the money is repatriated, the IRS will tax the gains at the highest rate, which today is 35 percent, in addition to a 5 percent interest penalty per annum. Therefore, this tactic would be less effective for hedge funds that might realize income that would have been taxed at 15 percent.

Although the U.S. government enforces the PFIC rules, many states do not have PFIC rules. Interestingly, if an investor remains invested in a fund for seven years, only the profit made in the seventh year will be taxed in those states; the other six years will escape state taxation forever. Shrewd investors could stay in the fund for just one month into the seventh year and pay tax only on that one month’s worth of profits; the other six years will escape state taxation.

Our analysis at Twenty-First Securities shows that investors in most high-tax states would be better off in an offshore fund than in an onshore fund. If an investor has a domestic-based hedge fund with a lot of long-term gains or qualifying dividend income, an offshore PFIC investment is not recommended because the gains in the U.S. hedge fund would be taxed at 15 percent, compared with 35 percent plus the 5 percent interest charge on the PFIC.

I am enthusiastic about mutual funds that engage in hedge fund strategies, of which there are roughly 61 long–short funds and 4 risk arbitrage funds. All these funds possess economic and tax advantages. Mutual funds typically do not engage in excessive leverage, and they are less inclined to suffer from the challenge of pricing illiquid securities. Both hedge funds and mutual funds have management fees, but mutual funds do not have any performance fees. Although these kinds of mutual funds are more expensive than the average fund, they are much cheaper than a hedge fund. From a tax perspective, investors in mutual funds pay tax only on net profits. Investors may not be excited about going to the next cocktail party and talking about their “mutual fund,” but that may be the biggest impediment to investors realizing this golden opportunity.

Derivatives, such as equity swaps, are available on hedge funds. By itself, a derivative will not help investors get the long-term capital gains tax rate, but it will make sure that investors pay tax only on how much they make. The constructive ownership rule.

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Wealth Management

says that if an investor owns an equity swap on a hedge fund and it is held for more than a year and a day, that long-term gain reverts to ordinary income. But at Twenty-First Securities, we do not think that rule applies if an investor uses an equity swap on a hedge fund index. The law contains language about a derivative on a flow-through vehicle, like a limited partnership or a limited liability company, but it did not change the taxation of derivatives on an index. So, hedge fund indices now exist, such as the S&P Hedge Fund Index and the S&P Risk Arbitrage Index. Therefore, by investing in those indices through a derivative, investors will not pay tax until they want to, and then only at long-term capital gains tax rates.

A hypothetical comparison of the returns between a fund of funds and a hedge fund index-linked note is shown in Table 2. The assumed fund of funds has a management fee of 1 percent and a performance fee of 10 percent; the indices have a built-in management fee but no performance fee. A fund-of-funds manager may be able to outperform the index, but he or she would need a 14.82 percent return to equal the after-tax performance of a 10.00 percent return in the index. This 482 bps of alpha may be possible but quite a challenge. The source of the after-tax improvement can be decomposed into its constituents: extra fees, tax deferral and conversion to long-term gains, compounding, and deductibility of the fees, as shown in Table 3. For example, if the fees of the fund of funds are tax deductible to the investor, then the fund-of-funds manager needs to generate only 328 bps of alpha over an index—still a sizable amount—before the investor is indifferent between the two strategies.

Constructive-Sale Rules

The Taxpayer Relief Act of 1997 forced investors to recognize capital gains on a constructive sale of a stock but not a debt instrument. So, if an investor has a bond with a big profit, the investor can lock in that profit by selling short the bonds that he or she already owns, known as a short against the box. In a short against the box, investors can get 99 percent of the money out of a bond and not pay the capital gains tax until they sell the long bonds.

But if an investor owns appreciated stocks, then he or she has to navigate around the constructive-sale rules. Any hedging strategy must contain a risk for further appreciation or losses; otherwise, the constructive sale could trigger a taxable event. One approach to protect gains is to create an option-based collar by simultaneously buying a put and selling a call; we believe investors need about a 15 percent band between the put and the call.

<table>
<thead>
<tr>
<th>Term of Investment (years)</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.00%</td>
<td>1.81%</td>
<td>1.82%</td>
<td>1.83%</td>
</tr>
<tr>
<td>7.50%</td>
<td>2.32%</td>
<td>2.37%</td>
<td>2.38%</td>
</tr>
<tr>
<td>10.00%</td>
<td>4.70%</td>
<td>4.76%</td>
<td>4.82%</td>
</tr>
<tr>
<td>12.50%</td>
<td>6.20%</td>
<td>6.30%</td>
<td>6.39%</td>
</tr>
<tr>
<td>15.00%</td>
<td>7.74%</td>
<td>7.88%</td>
<td>8.01%</td>
</tr>
</tbody>
</table>

One of the problems is that this strategy could be a straddle, meaning any carrying costs are not deductible now at 35 percent but capitalized into the stock, thus causing a higher cost basis in the shares. And only if the investor actually disposes of the stock will he or she ever get the benefit of the deduction for those costs—and even then, it would be only at a 15 percent benefit. So, if the investor holds the stock until he or she dies, he or she will never get the benefit of the costs. Beware: A collar will usually destroy the holding period for the dividends, and then the investor will pay a 35 percent tax on them.

A nonrecourse loan is one way to avoid a straddle. Following is an example. If you want to purchase real estate worth $10 million, you could borrow $9 million with recourse only to the real estate itself and not against you as the borrower. And if the real estate appreciates, you can sell the real estate and pay off your loan, or roll over the loan. But if the value of the real estate goes down, you can walk away from the loan and keep the $9 million. In the eyes of the IRS, you have then, and only then, sold the real estate for $9 million. The benefit is that it does not create a straddle, and it does not affect the dividend holding period. Therefore, you would be taxed at only 15 percent on future dividends.

Table 2. Fund-of-Funds Alpha Required for After-Tax Breakeven

<table>
<thead>
<tr>
<th>Index Annual Return</th>
<th>Tax Rate on Fund-of-Funds Income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>28.00%</td>
</tr>
<tr>
<td>5.00%</td>
<td>1.06%</td>
</tr>
<tr>
<td>7.50%</td>
<td>2.07%</td>
</tr>
<tr>
<td>10.00%</td>
<td>3.13%</td>
</tr>
<tr>
<td>12.50%</td>
<td>4.24%</td>
</tr>
<tr>
<td>15.00%</td>
<td>5.39%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fund-of-Funds Fees Deductible</th>
<th>No</th>
<th>Yes</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.00%</td>
<td>1.83%</td>
<td>0.80%</td>
<td>1.03%</td>
</tr>
<tr>
<td>7.50%</td>
<td>3.30%</td>
<td>2.01%</td>
<td>1.28%</td>
</tr>
<tr>
<td>10.00%</td>
<td>4.82%</td>
<td>3.28%</td>
<td>1.54%</td>
</tr>
<tr>
<td>12.50%</td>
<td>6.39%</td>
<td>4.60%</td>
<td>1.80%</td>
</tr>
<tr>
<td>15.00%</td>
<td>8.01%</td>
<td>5.96%</td>
<td>2.06%</td>
</tr>
</tbody>
</table>
Investing with a Tax-Efficient Eye

Now, imagine that you have owned an appreciated stock for 10 months and you want to eliminate it from your portfolio. You have a choice. First, you could sell it now and pay short-term capital gains tax at 35 percent. Second, you could wait for two months and a day, betting that the stock does not nose-dive in the meantime, and then have a long-term holding period. Or, you could borrow through a nonrecourse loan starting at 10 months, and your holding period will not reset. Therefore, you should borrow for 2 months and a day, taking you into the 12-month long-term tax rate, and if the stock is up, sell it for a long-term gain and pay off your loan. But if the stock is down, walk away from the loan; again, it is the day you walk away from a loan that you trigger a gain for tax purposes. Naturally, the higher the loan-to-value ratio, the higher the interest rate applicable to nonrecourse loans.

Table 3. Return Analysis of a Hedge Fund Index-Linked Note and a Fund of Funds

<table>
<thead>
<tr>
<th>Assumptions</th>
<th>Value after Seven Years</th>
<th>Cumulative Return</th>
<th>Annualized Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount invested</td>
<td>$10,000,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Term of investment (years)</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hedge fund index-linked note</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual index rate of return</td>
<td>10.00%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual management fee</td>
<td>1.75%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final adjustment factor</td>
<td>88.37%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax rate on sale</td>
<td>15.00%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fund of funds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual rate of return</td>
<td>10.00%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management fee</td>
<td>1.00%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incentive fee</td>
<td>10.00%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax rate on income</td>
<td>35.00%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fees deductible (yes/no)</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Analysis                                          |                         |                   |                   |
| Index-linked note net of fees and taxes          | $16,138,468             | 61.38%            | 7.08%             |
| Fund of funds net of fees and taxes              | 13,563,105              | 35.63%            | 4.45%             |
| Fund-of-funds pretax return needed for after-tax breakeven | 14.82 | | |
| Less pretax index return                         | 10.00                   |                   |                   |
| Fund-of-funds alpha required for after-tax breakeven | 4.82%                  |                   |                   |

Conclusion

Investors ought to care about reducing their tax bills, and with various strategies, they can avoid paying the short-term capital gains tax of 35 percent to the federal government. Fortunately, the tax code contains anomalies, so ways exist to replicate an economic position without jeopardizing after-tax returns. And tax savings can be found almost everywhere: individual bonds and stocks, passive indices, mutual funds, and hedge funds. Many of the tax-efficient strategies include the use of derivatives, although the expenses and complications for some of them preclude their use for all but high-net-worth individuals. For those wealthy individuals, they have plenty of flexibility within the current tax code to make the payment of high taxes voluntary rather than statutory.
Question and Answer Session

Robert Gordon

Question: What size transaction do you need to make these transactions cost-effective? In other words, how big does the loss need to be?
Gordon: The loss has to be about 15 percent of the price of the stock for options and swap agreements obtained from a dealer, and you probably have to have $1 million of stock to get the dealer to transact with you. If the stock has listed options, then there is no minimum; a standard contract is for 100 shares. For positions of $1 million or 10,000 shares, whichever is less, you can use what are called flex options on the exchanges, which allow investors to pick their own expiration date and strike price just like with OTC options.

Question: What is the risk that the IRS will move quickly to stamp out some of these efficiency anomalies?
Gordon: This is always a risk with these structures, especially some of the more aggressive ones. But the United States has a tax code that makes prospective rather than retroactive changes. So, we should always have some time to figure out innovative ways to unwind unallowable positions into allowable ones. And as David Schizer explains, the wash-sale rules have many frailties so that wealthy investors can create those “perfect end runs.”

Question: If I sell a stock to recognize a loss, can I re-buy it immediately in my IRA without violating the wash-sale rules?
Gordon: No. The tax law does not allow you to avoid the wash-sale rules by purchasing that stock for your IRA. In fact, this would apply to any related party—whether it is a business, a partnership, or a trust owned by a member of your family.

Question: What is the best investment approach for a tax-deferred IRA?
Gordon: Growth stocks are not optimal in an IRA because if you made money on a growth stock, it probably would have been a long-term gain taxed at 15 percent. If you lose money in a growth stock, then you have a capital loss that you can’t use. I use growth stock as the substitute for a volatile asset, and I don’t think a volatile asset belongs in an IRA. So, bonds are the most appropriate assets to hold in an IRA because they pay a dependable stream of income.

Question: Is the quality of managers available through mutual fund hedge funds equal to the quality of managers available through direct investing?
Gordon: Some mutual fund hedge funds employ the same managers who have hedge funds, so obviously, the quality will be the same because the managers are the same. Management quality issues are more relevant for indices because they will only give money to a hedge fund manager who allows total transparency in daily liquidity—not necessarily the manager with the best skill.

The Center for International Securities and Derivatives Markets (CISDM) has investigated skill differences between risk arbitrage and convertible arbitrage managers, and most of their returns are similar because they are all limited by the same subset of investments. Only so many risk arbitrage deals are going on, and only so many convertible arbitrage opportunities are coming out of the new-issue calendar.

The performance of long–short managers is all over the place, as is that of macro managers.

Question: If you’re going to use a derivatives strategy to get exposure to hedge funds, how do you deal with such issues as survivorship bias in the indices?
Gordon: Much of the academic work you are alluding to is by Malkiel, who investigated hedge fund indexes that went back about 20 years. He found that they excluded those managers who performed poorly and went out of business. So, overcoming survivorship bias will be tough. The investable indices have been around for only two years, and everyone that was put into them is still there. So, they may not have the same distortions.

If we believe that a fund of funds must generate 482 bps of alpha to overcome tax inefficiencies, we certainly need to distinguish good managers from poor ones. But it is difficult to find managers who can make up the tax difference. Furthermore, that 482 bps won’t be reached by those following convertible arbitrage or risk arbitrage strategies, where they’re all stuck doing the same thing.

Question: With hedge funds originally being the province of private investors, why aren’t they more tax efficient in the way they manage their assets?
Gordon: A lot of money is held in offshore funds, especially the stakes owned by the manager, which benefit from deferred compounding. So, why should they—and their advisors—bother with tax issues, especially because some of the onshore strategies are complex and expensive to enter into? They are not paid or incentivized to be tax friendly; it is only when investors start demanding it that tax efficiency will come to hedge funds.