COLUMBIA THREADNEEDLE INVESTMENTS

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TAX-LOSS HARVESTING EXPECTATIONS

Next to nothing for use.
But a crop is a crop,
And who's to say where
The harvest shall stop?

— Robert Frost

Behavioral finance teaches us that investors feel the pain of loss with three times the intensity with which they feel the euphoria of a gain. In fact, behaviorists believe that human beings are much more loss-averse than they are risk-averse. Study after study has shown that faced with a strong probability of a loss, investors will invariably take on additional risk, just to have a chance at avoiding that loss.

Given this predisposition, it is hardly a surprise that most investors express a healthy skepticism at the proposition that losses can positively contribute to portfolio returns. Yet, for taxable investors able to set aside the contradictory nature of this concept, tax-loss harvesting should be just as welcomed a technique as buy low and sell high.

For the vast majority of investors, tax-loss harvesting has traditionally meant trying to find a loss within their portfolio at the end of the year, which they then can use to offset a capital gain, reducing capital gain taxes they would have to pay for the calendar year. For an astute investor, however, this simple method is largely a hit or miss proposition; over the last 30 years, and even going back to World War II, nearly 80% of the time the market has experienced positive returns in December.*

In order to generate consistent tax alpha, it is necessary to harvest losses throughout the year and take advantage of market swings as they occur, because such opportunities are often fleeting. In 2009, for example, the Russell 3000 Index was down nearly 19% in the first two months of the year, yet finished the year up more than 28%. If you waited until the end of the year to harvest losses, you were out of luck, as 86% of the index constituents were up.

Exhibit 1: Russell 3000 distribution of monthly returns
(1979–2014)

	% +	% -	Best	Worst		% +	% -	Best	Worst
January	64	36	12.83	-8.39	**July**	42	58	8.05	-7.95
February	69	31	7.66	-10.48	**August**	64	36	11.98	-15.32
March	72	28	8.76	-11.91	**September**	50	50	9.44	-10.51
April	69	31	10.52	-5.25	**October**	67	33	11.87	-22.43
May	72	28	9.21	-7.90	**November**	72	28	10.37	-9.22
June	61	39	5.30	-8.25	**December**	81	19	11.22	-5.65

Source: Russell Investments as of 12/31/14

* Columbia Threadneedle Investments

In the context of running a tax-efficient index strategy like Tax Efficient Structured Equity (TESE), tax-loss harvesting can be thought of as the art of substituting one stock for another so that the risk/return characteristics of the portfolio continue to match the risk/return characteristics of the index. As one stock is sold for a capital loss and replaced by a similar stock, the aggregate portfolio continues to deliver the index returns and the loss harvested by the sale creates economic value for the investor.

Within the structure of a separately managed account, where the investor owns individual securities, such substitutions are possible on multiple levels. As already mentioned, the volatility of the market and individual stocks creates opportunities to harvest losses, but the maintenance of individual tax lots also provides for many more opportunities throughout the life of the strategy.

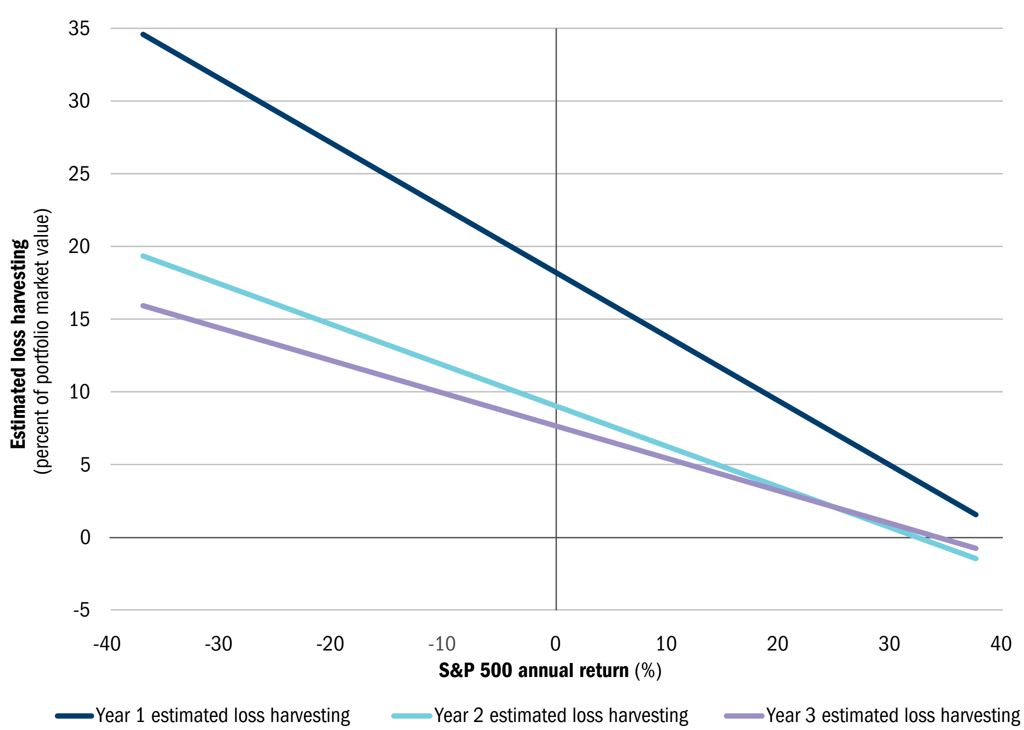
Two most common questions we receive from potential investors in the TESE strategy are:

- What are the loss-harvesting expectations?
- How long do you expect to harvest losses?

What are the loss harvesting expectations?

A short answer to this question is that in a typical 10-year period, we expect to harvest losses of approximately 45% of the portfolio's original market value. However, the dynamics of loss harvesting are such that external conditions play a huge role in determining what path a harvesting strategy will take. The chart below illustrates this point by examining the first three years of a typical TESE portfolio.

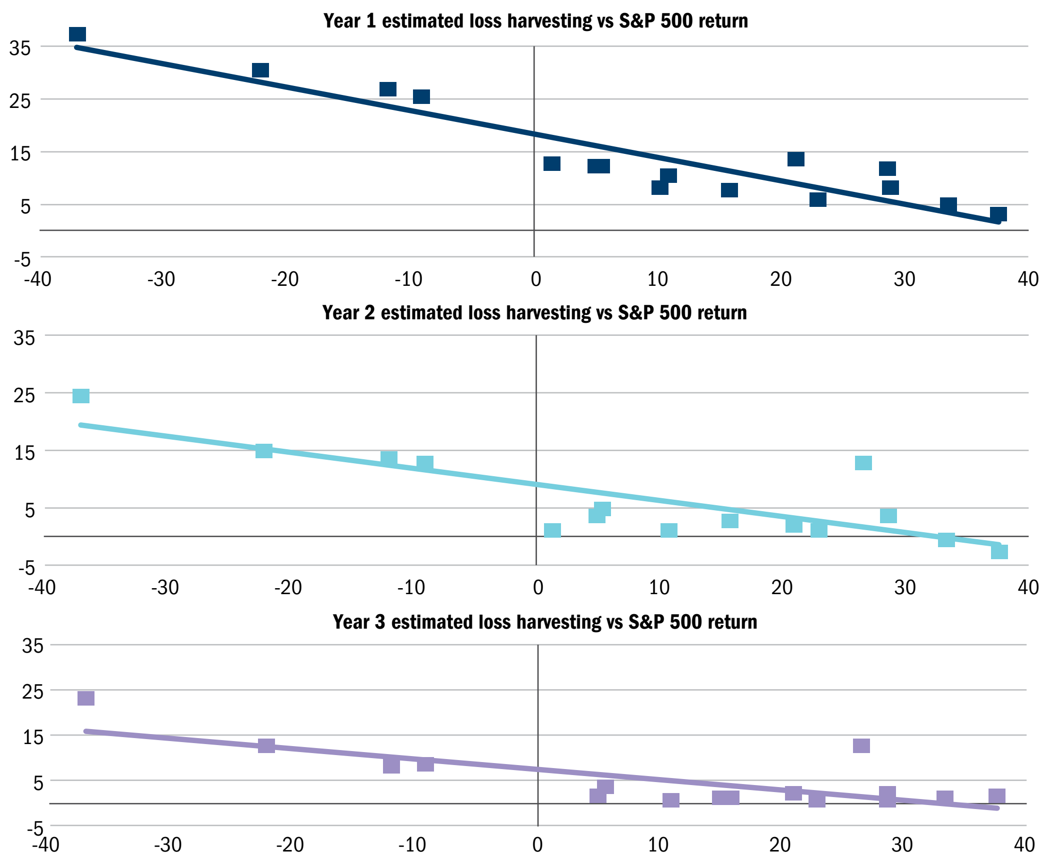
Exhibit 2: Loss harvesting is negatively correlated (~0.90) to returns



Source: Columbia Threadneedle Investments. Results are composed of 16 discreet back-tested portfolios started each January 1 from years 1992–2008 providing a sample large enough to cover different market cycles. Each portfolio was back tested for 5 years with the final portfolio back tested through December 2012. The purpose of the back test was to 1) establish the relationship between the direction of the market and ability to harvest capital losses 2) demonstrate path dependency of loss harvesting.

Through examining the range of loss-harvesting experiences relative to different market returns, it is apparent that a clear negative correlation exists between loss harvesting and the direction of the market. Put another way, the higher the market return, the lower the percentage of possible loss harvesting.

Exhibit 3: Loss harvesting in the first three years (%)



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Each of the smaller three graphs depicts one year of the initial three years of loss-harvesting results. We plotted 16 ten-year back-tested portfolios with 16 different year ones, 16 different year twos and 16 different year threes. Please note, we are only illustrating years one through three. This is important because harvesting results are dependent on both the market's returns in a given year as well as the preceding year's harvesting experience (which we call path dependency).

The top panel of the graph describes 16 different first-year results. The line on the chart represents the range of loss-harvesting experiences relative to the different market returns. Each dot represents a specific loss-harvesting experience and return, allowing us to compare loss-harvesting results in different market environments.

On the extreme ends of the year-one panel, the highest loss-harvesting experience coincides with the lowest market return, and the lowest harvest experience accompanies the highest market return. The second- and third-year panels show the same relationship, but at a lower harvesting rate.

Loss-harvesting levels can vary

Different levels of loss harvesting exist even in similar market return environments. There are at least two potential reasons for this phenomenon.

First, there are times when markets become narrowly driven. For example, a handful of large stocks in the index move up while the majority of stocks in the same index move down. This can create more opportunities to harvest losses than otherwise possible in a broader market, where the majority of stocks are going up with similar returns.

The second and perhaps less obvious reason is that except for the initial year, each year's loss harvesting opportunities are influenced by the market returns from previous years. For example, a market return pattern of +35%, +15% and -10% will produce entirely different harvesting results in year three than a market return of +6%, +2%, -10%. While year three has an identical -10% market return, the harvesting opportunities are quite different based on the prior two years' returns.

Market timing is not a factor for success

A final insight offered by these graphs is that when it comes to investing in a tax-efficient strategy, market timing is not essential for success. A correct fundamental call about the market direction is not needed to experience the benefits of loss harvesting. Each loss-harvesting path may be different, but different loss-harvesting experiences may lead to a useful end. For example:

- If loss harvesting meets or exceeds our expectations, in most cases, excess capital losses can be carried forward by the individual to future tax years: first offsetting capital gains of the same tax character and then capital gains of a different character, finally offsetting capital gains up to $3,000 per year of ordinary income.
- Alternatively, in the event loss harvesting fails to meet our expectations, then the portfolio's market value will have increased meaningfully.

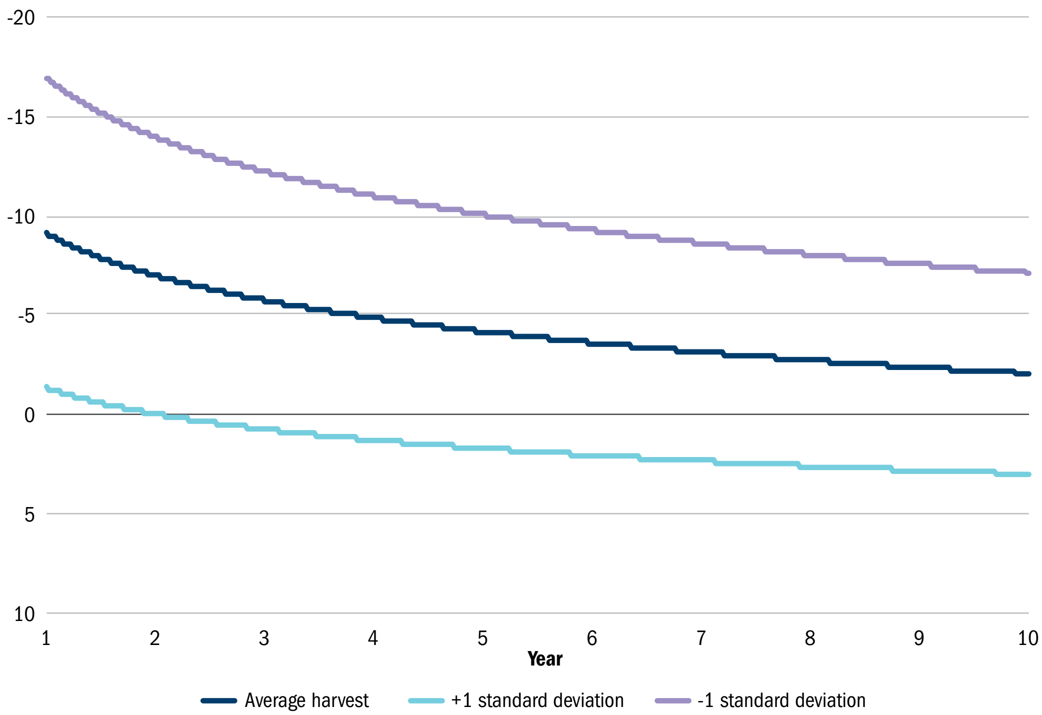
How long do you expect to harvest losses?

As for the effective duration of the harvesting period, here Robert Frost's wistful refrain points us in the right direction. Where the market will go is anyone's guess, but it is possible that the tail end of the portfolio's loss harvesting life can extend well beyond 10 years.

The next chart outlines the variability of loss harvesting back-test results over a 10-year period. Here, a loss-harvesting mean of 2% in the tenth year and a standard deviation of 5% suggest that a TESE portfolio's loss-harvesting experience could extend beyond the 10-year harvesting estimate. Such results are possible due to:

- New capital being added to the portfolio
- Dividend reinvestment
- Unusual market volatility

Exhibit 4: Estimated full-year harvesting rate
(percent of market value)



Source: Columbia Threadneedle Investments. Based on simulation. Initial simulated portfolio investment of $1 million, simulated portfolios rebalanced monthly, expected tracking error targeted below 1% and the underlying benchmark was the S&P 500 index. Note that the average 5 year cumulative return of the S&P 500 index was 33.40% (between 1993 and 2010), which may not be representative nor indicative of future market returns. Simulation has inherent limitations, which may include historical bias, hindsight, limited database quality and various other factors like actual trading impacts that may not reflect all liquidity constraints, fees or costs as well as the impact that material and economic market factors can have on individual client portfolios — any of which may lead to actual results different than those simulated.

Conclusion

Since we began with behavioral finance insights, let us also conclude there. Chasing returns has long been a prime cause of investors' underperformance and the most difficult to overcome. Today, investors have at their disposal more information and more analytical tools than anyone could have imagined even 10 years ago. Ironically though, studies by Dalbar and many others continue to show, over and over, that investors catch only a fraction of index returns. Add a much higher tax rate environment into the mix, and investors wind up keeping even less.

Tax-loss harvesting, however, is a tool that can help many investors relieve the impact of higher tax rates and help them keep more of their wealth. They would be well-served to consider adding such a strategy into their mix of investments.

About Columbia Threadneedle Investments

Columbia Threadneedle Investments is a leading global asset management group that provides a broad range of actively managed investment strategies and solutions for individual, institutional and corporate clients around the world.

With more than 2,000 people, including over 450 investment professionals based in North America, Europe and Asia, we manage $503 billion* of assets across developed and emerging market equities, fixed income, asset allocation solutions and alternatives. We are the 13th largest manager of long-term mutual fund assets in the U.S.** and the 4th largest manager of retail funds in the U.K.***

Our priority is the investment success of our clients. We aim to deliver the investment outcomes they expect through an investment approach that is team-based, performance-driven and risk-aware. Our culture is dynamic and interactive. By sharing our insights across asset classes and geographies, we generate richer perspectives on global, regional and local investment landscapes. The ability to exchange and debate investment ideas in a collaborative environment enriches our teams' investment processes. More importantly, it results in better informed investment decisions for our clients.

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The TESE account strategy may underperform its benchmark. There is no expectation that an account in the TESE program should outperform (before fees and taxes) the relevant benchmark index, and an account's net performance (after fees, expenses and taxes) may underperform the index even if the account's gross performance (before fees and taxes) outperforms the index. Furthermore, tax harvesting and investment restrictions by a client can cause that client's account to diverge materially from the benchmark index for this strategy and may cause the account's performance to be lower than that of the benchmark index.

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* In U.S. dollars as of June 30, 2015. Source: Ameriprise Q2 Earnings Release. Includes all assets managed by entities in the Columbia and Threadneedle groups of companies. Contact us for more current data.

** Source: ICI as of June 30, 2015 for Columbia Management Investment Advisers, LLC.

*** Source: Investment Association as of June 2015 for Threadneedle Asset Management Limited.

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