



NORTHERN TRUST

ASSET MANAGEMENT

HOW TO IMPROVE AFTER-TAX RETURN BY HARVESTING INVESTMENT LOSSES MORE FREQUENTLY

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SYSTEMATIC AND FREQUENT LOSS HARVESTING MAY ENHANCE PERFORMANCE IN A VARIETY OF EQUITY MARKETS

Tax-managed investment strategies involving loss harvesting have evolved over the years. The most basic strategies harvest losses in a portfolio a few times a year, typically near the end of the tax year. However, we find that higher frequency loss harvesting can more effectively create “tax alpha” that potentially boosts performance. Our research shows how investors can uncover additional tax alpha across different equity market environments. Further, we examine the impact of expected tracking error on the potential to harvest losses.

THE HIGHER FREQUENCY ADVANTAGE

With more frequent harvesting, investors can take advantage of temporary stock declines that they otherwise may miss with a less frequent trading schedule. The extent of tax savings from loss harvesting varies depending on the type of market or even the amount of portfolio tracking error.

To measure the effectiveness of frequent trading, we created a model using a hypothetical equity portfolio and showed the impact on performance with monthly, quarterly, biannual (twice a year), and no loss harvesting. For this model, we constructed a large cap U.S. equity hypothetical portfolio that closely tracks the return of its S&P 500 Index benchmark.

We measured the added value of increasing trading frequency on tax alpha, or after-tax excess return minus the pretax excess return. The after-tax return takes into consideration the tax impact of the losses harvested at the highest marginal tax rate and the tax impact of dividends, which have a different tax rate.

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In Exhibit 1, we show how tax alpha varied in three different types of 10-year equity markets as defined by S&P 500 returns: a strong 14.6% annualized return ended March 2022, a more moderate 7.3% annualized return ended December 2015, and a 2.2% annualized loss ended June 2009.

The results clearly show the benefits of harvesting losses to offset gains elsewhere in a client's overall portfolio, reducing the tax burden. It also shows that these benefits increased as the portfolio was traded more frequently. Quarterly trading created more tax alpha than biannual trading, and monthly trading delivered the highest tax alpha.

As equity gains moderated in the different time periods studied, loss harvesting opportunities increased. Tax alpha reached the highest levels in the 10-year down market. With more frequent loss harvesting in volatile down markets, investors can take advantage of the abundance of losses available. Efficient tax management is especially important during more turbulent markets, as it may help mitigate the risk of lower pretax returns with greater tax alpha.

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EXHIBIT 1: HOW HIGHER FREQUENCY LOSS HARVESTING HELPS IN VARIOUS MARKETS

More frequent loss harvesting led to higher tax alpha in these three 10-year U.S. equity markets. Further, the worst-performing market ended June 2009 produced the most tax alpha because of more loss harvesting opportunities, a strategy that may help investors cushion performance in volatile markets.

Tax Alpha (%)

Loss Harvesting Frequency	S&P 500 Index 10-Year Scenarios (Annualized Returns)		
	14.6% March 2012- March 2022	7.3% December 2005- December 2015	-2.2% June 1999- June 2009
None	-0.7	-0.7	-0.5
Biannually	1.0	1.8	2.4
Quarterly	1.1	2.1	2.6
Monthly	1.3	2.4	3.0

Sources: Northern Trust Asset Management, Standard & Poor's. Tax alpha is after-tax excess return, or return over the benchmark, minus pretax excess return. Past performance is no guarantee of future results.

THE TRADE-OFF BETWEEN TRACKING ERROR AND TAXES

With any tax-managed strategy that is harvesting losses, investors will inevitably experience tracking error versus the underlying benchmark. When investors sell securities in a portfolio to realize losses, they often purchase securities with similar characteristics in order to capture similar returns. The returns of replacement securities are unlikely to perfectly match that of the sold securities, leading to a difference in pretax performance measured by “tracking error”.

Tracking error is the variation between a portfolio’s return and the return of its benchmark. For example, a portfolio might have an expected tracking error relative to its benchmark of 1% per year. Assuming a normal distribution of excess returns and estimated tracking error of 1%, we can expect the return to be within +/-1% of the benchmark return approximately two out of every three years.

Typically, increasing expected tracking error allows for more aggressive loss harvesting, assuming there are available losses to harvest. However, at a certain point, the additional after-tax benefits begin to diminish. The table below shows a typical tax loss harvesting trade on a sample tax-managed portfolio. Realized losses increase along with the portfolio’s expected pretax tracking error, but the incremental tax benefits diminish as tracking error rises.

Typically, increasing expected tracking error allows for more aggressive loss harvesting, assuming there are available losses to harvest. However, at a certain point, the additional after-tax benefits begin to diminish.

EXHIBIT 2: DIMINISHING BENEFITS WITH HIGHER TRACKING ERROR

The opportunity for loss harvesting increases with higher tracking error. However, the incremental increase in available losses slows as tracking error rises, diminishing potential benefits of loss harvesting.

Hypothetical Portfolio Estimated Realized Losses at Various Tracking Errors

Hypothetical U.S. Large Cap Equity Portfolio				
Market value	10,000,000			
Unrealized gains	\$3,439,000			
Available unrealized losses	(\$165,000)			
Current estimated tracking error	0.50%			
Potential Tax Loss Harvesting				
Tracking error	0.50%	0.75%	1.00%	2.00%
Estimated net realized losses	(\$82,500)	(\$107,250)	(\$123,750)	(\$132,000)
% of available losses realized	50%	65%	75%	80%

Source: Northern Trust Asset Management. Available unrealized losses are the current unrealized losses in the portfolio at the time of trading. Estimated net realized losses are the losses from the tax loss harvesting trade. The hypothetical portfolio is based on a portfolio indexed to U.S. large cap stocks.

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Investors must balance these extra tax benefits with the potential for negative excess returns on a pretax basis. Persistently high tracking error can significantly increase the chances of negative excess returns over the long-term. A skilled investment manager must find the right balance between expected tracking error and loss harvesting in order to tailor a strategy to meet a portfolio’s unique goals and objectives.

The chart below compares the pretax excess return and tax alpha at different levels of tracking error over a 10-year time period ended March 31, 2022. As we would expect, higher levels of tracking error led to much wider dispersions in expected pretax excess returns, including negative excess returns.

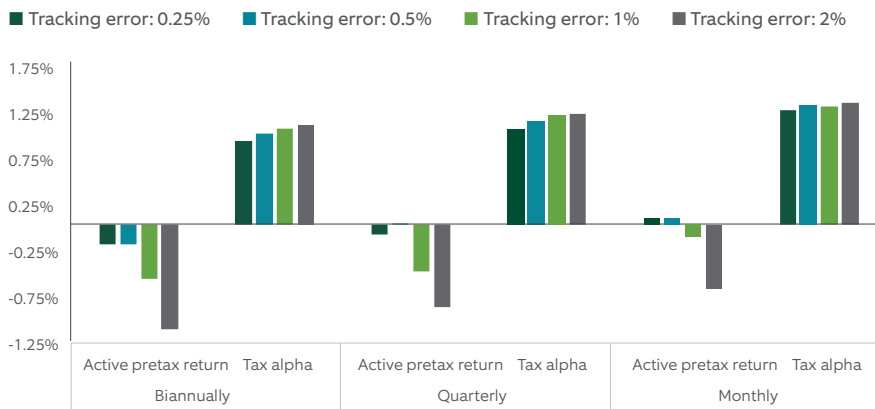
Small increases in tax alpha can easily be offset by negative variations in pretax return if tracking error is not carefully managed. A moderate tracking error level of around 0.50% provides some balance between the competing objectives to achieve benchmark like returns while adding value through active tax management. Of course in a customized separately managed account, risk can be dialed up or down based upon the portfolio objectives.

A skilled investment manager must find the right balance between expected tracking error and loss harvesting in order to tailor a strategy to meet a portfolio’s unique goals and objectives.

EXHIBIT 3: HOW TRACKING ERROR MAKES A DIFFERENCE

While higher tracking error potentially increases the opportunity for tax alpha, investors should take into account that higher tracking error also could increase the chance of underperformance.

Hypothetical U.S. Large Cap Portfolio Active Pretax Return vs. Tax Alpha at Varying Tracking Errors



Sources: Northern Trust Asset Management, Standard & Poor’s. Past performance is no guarantee of future results. The benchmark is the S&P 500 Index and the return period is the 10-year period ended March 2022, when the S&P 500 returned 14.6% annualized. Past performance is no guarantee of future results.

MANAGING TAXES EFFECTIVELY AT THE RIGHT TRACKING ERROR

Increasing the frequency of loss harvesting trades may be among the most effective strategies for an investor to maximize after-tax returns. Trading more consistently throughout the year also helps to actively manage risk in the portfolio and invest cash received from dividends and corporate actions before they become a drag on performance.

The combination of consistent monthly trading with an appropriately moderate level of tracking error produces a tax-managed strategy that we believe is able to effectively achieve benchmark-like returns while maximizing the tax benefits of loss harvesting through active tax management. We think this approach is well-positioned to maximize wealth for taxable investors.

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MODEL ASSUMPTIONS

- Active pretax excess return was calculated as: total pretax return – S&P 500 Index gross return.
- The after-tax portfolio return was calculated as: total pretax return – tax impact of dividends – tax impact of realized gains + tax impact of realized losses.
- The after-tax index return is the S&P 500 Index net return.
- Tax alpha is calculated as: after-tax excess return – pretax excess return.
- Tax impacts were calculated using the highest marginal individual tax rates in the U.S. of 23.8% long-term, 40.8% short-term, and 23.8% for dividends.



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