ACTIVE TAX MANAGEMENT

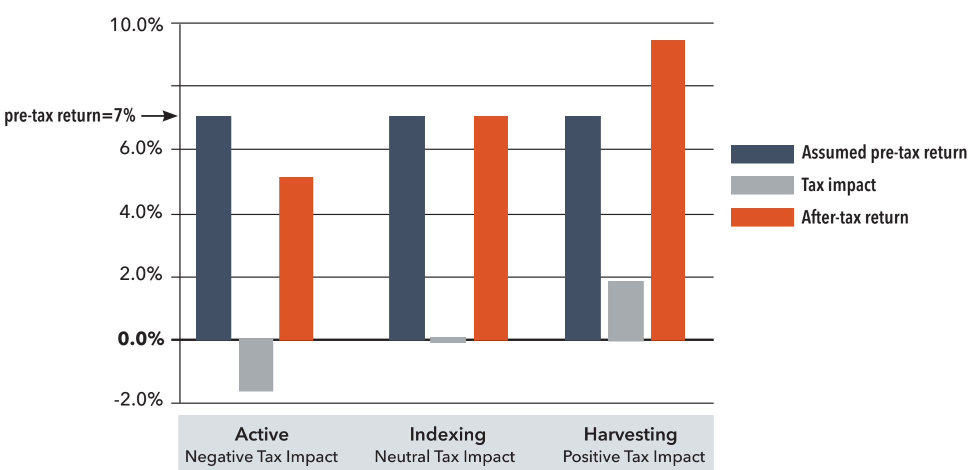
Improving after-tax portfolio returns with tax-loss harvesting strategies

At the core of Aperio's investment methodology for taxable investors is a simple equation: less tax equals greater wealth. Taxes erode returns and effectively lower portfolio performance. While index funds and ETFs offer investment strategies to increase tax efficiency, we believe investors have the opportunity to do even better.

Measurable tax alpha with active tax management

For investors with sufficient assets, Aperio's Active Tax Management strategy overlays sophisticated tax-loss harvesting on top of a portfolio that tracks an equity index. Depending on the client's tax situation, modeling suggests that after-tax returns could provide 0.81%–1.93% in annual excess return (before any fee differential) over a 10-year period versus a comparable index fund or ETF. The overall objective of Aperio's tax-management strategy is to provide consistent "tax alpha" with lower comparative risk than strategies that attempt to boost pre-tax performance.

IMPACT OF TAXES ON INVESTING



See disclosure for sources of data

Building & managing the tax-efficient portfolio

Aperio constructs portfolios in separately managed accounts (SMAs) composed of individual stocks that track a target benchmark. Taking advantage of the natural price movements in stocks, we continuously monitor and systematically rebalance the portfolio to recognize tax losses from securities that have declined. Realized tax losses can offset taxable capital gains generated by the sale of other assets such as those from hedge funds, the liquidation of appreciated holdings, or the sale of private businesses. This reduction in taxes paid can improve the after-tax returns and provide greater after-tax wealth for the investor.

Tax-Management Solutions

- Tax-Loss Harvesting
- Diversifying Concentrated Stock
- Tax Arbitrage
- Tax-Gain Harvesting
- 10b5-1 Compliant Trading
- Low-Basis Stock Transitions
- Managing Distributions from Exchange Funds

Consultation & Experience

- Tax Economics Consulting
- Tax-Efficient Transitions
- Transaction Cost Modeling
- Diversification Modeling
- Charitable Gift Analysis
- Quantitative Risk Control

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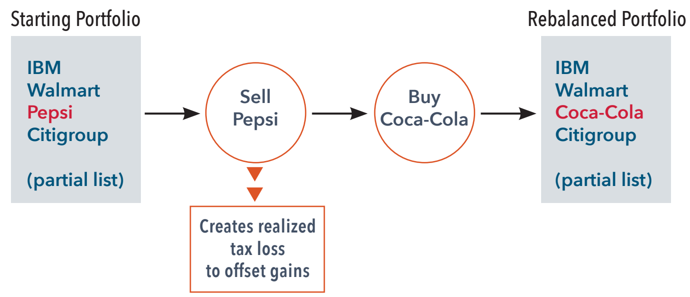
Tax-loss harvesting: a basic example

If Pepsi is in the target index portfolio and the stock price declines, we may sell and replace the shares with Coca-Cola, another large beverage company. The net result: the portfolio continues to hold an essentially unchanged position in the risk factors of a sizable beverage firm. The rebalancing generates a loss that can be used to offset a taxable gain from a hedge fund or other source. If no taxable gains exist today, the investor can carry forward the harvested losses indefinitely and use them to offset future gains. Losses can be harvested in both up and down markets.

APERIO PORTFOLIO TRACKING THE RUSSELL 1000 BENCHMARK



Consultation, analysis, and customization

One of the biggest challenges investors and their advisors face is transitioning existing portfolios, which may be spread over multiple accounts, trust structures, and firms. The critical tasks of consolidating and rebalancing these portfolios can often trigger unnecessary taxable events. We can analyze existing accounts and map out several transition strategies for minimizing the tax impact. Whether it's local and state taxes, AMT status, estate planning issues, trust structures, tax-efficient charitable gifting, concentrated positions, or other complications, we specialize in handling complex transition situations.

Advantages of Active Tax Management

- Control
- Transparency
- Flexibility
- Measurable Results

Benchmarks

- Domestic
- Foreign
- Global
- Custom Blended
- Specialized

Can Be Combined With

- Factor Tilts
- Socially Responsive Indexing/ ESG

The information contained within this presentation was carefully compiled from sources Aperio believes to be reliable, but we cannot guarantee accuracy. We provide this information with the understanding that we are not engaged in rendering legal, accounting, or tax services. In particular, none of the examples should be considered advice tailored to the needs of any specific investor. This material is being provided for information purposes only and should not be solely relied upon when making an investment decision. We recommend that all investors seek out the services of competent professionals in any of the aforementioned areas.

Aperio's investment advisory fees are described in Part 2A of its Form ADV. Aperio's investment advisory fees and any other expenses that may be incurred in the management of the account will reduce performance results of Aperio clients.

The Monte Carlo results do not include management fees. A difference in fees between a separate account and an ETF or other strategy could lead to returns lower than those shown. With respect to the description of any investment strategies, simulations, or investment recommendations, we cannot provide any assurances that they will perform as expected and as described in our materials. Past performance is not indicative of future results. Every investment program has the potential for loss as well as gain.

In the chart of tax impact, the tax drag of -1.6% for active management reflects Morningstar data for active U.S. equity funds for the 20-year period ending 12-31-14. All historical distributions were recalculated to reflect 2014 rates for top tax bracket, assuming conventional federal income liability plus California income tax, as described below. Index funds are assumed to pay no capital gain tax. Yield of 1.8% per annum reflects the historical average for the time period shown. Taxes on liquidation not included, reflecting basis step-up or donation to charity. Magnitude of penalty would usually be less for investments liquidated at the end of the holding period. The positive impact for harvesting in the same chart reflects a Monte Carlo simulation comparing tax-loss harvesting versus holding a simple index portfolio, assuming the same pre-tax return for both portfolios excluding any fee differential. The simulations reflect the following assumptions: individual stock volatility of 34.2%, dividend yield of 2.0%, bid/ask spread (round-trip) of 0.10%, annual delisting from index of 4.0%, per-share commissions of $0.01, and expected market return of 7.0%.

The representative value added of 0.81% assumes a federal tax-only situation with a short-term capital gain rate of 44.6% and a long-term rate of 25.0%, assuming liquidation after 10 years. The forecasted value of 1.93% assumes that the federal tax rate is combined with the highest state tax rate (California) for a total of 52.1% and a long-term rate of 32.5%, assuming that after 10 years assets pass through an estate or are fully deductible as a charitable donation. All tax assumptions presume 3.8% Medicare tax and a 1.2% effect of the Pease itemized phase-out. Due to the complexity of tax law, not every single taxpayer will face the situations described herein exactly as calculated or stated, i.e., the examples and calculations are intended to be representative of some but not all taxpayers. Since each investor's situation may be different in terms of income tax, estate tax, and asset allocation, there may be situations in which the recommendations would not apply or after-tax returns would not be as high as shown. Please discuss any individual situation with tax and investment advisors first before proceeding. Taxpayers paying lower tax rates than the maximum tax rate or without taxable income would earn smaller tax benefits or even none at all compared to those described in the "Impact of Taxes on Investing" chart.