



An **Efficient Tax Portfolio Optimizer Analysis** delivers an optimized ranking of which individual tax-lots should be sold in a sequence that, based upon stock price forecasts an investors believes are reasonable, maximizes future after-tax wealth accumulation. The goal of optimizing an entire portfolio with an after-tax wealth generation orientation and focus is to help achieve the greatest amount of after-tax wealth over time, by not only optimizing at the tax-lot level, but by comparing each tax-lot's attractiveness for either retention or sale, against all other tax-lots held within a portfolio. An **Efficient Tax Portfolio Optimizer Analysis** Efficient Tax Portfolio Optimizer Analysis delivers an optimized ranking of which individual tax-lots should be sold in a sequence that, based upon stock price forecasts an investor believes are reasonable, recommends the selling of those tax-lots first that by doing so, are forecasted to generated the greatest after-tax excess return or Alpha over time. While holding onto those tax-lots that have the greatest after-tax return potential remaining. Comparing each tax-lot's current after-tax value against its forecasted one.

In the end, portfolio optimization's goal should be to guide investors, on a fundamental relative attractiveness basis when capital should be re-deployed to a higher and better use, in a sequence or ranking that is forecasted to gain the greatest amount of extra after-tax return upon sale and reinvestment. When higher net of tax returns are likely available through alternative or substitute investments.

In a highly calculation intensive and rigorous portfolio data analysis mining optimization process, or what is being referred to in the industry as "Cloud Based Big Data Predictive Analytics", an **Efficient Tax Portfolio Optimizer Analysis** first identifies which tax-lot, among all of those within a portfolio, if sold, given inputs like cost basis, market price, up-to-date realized gain and loss values and tax rates, and forecasted returns, would generate the greatest excess after-tax return or Alpha through a sale and reinvestment versus holding onto an existing investment.

Then by updating the Realized Gain and Loss values with the forecasted gain/loss realization impacts from that sale candidate, identifies, from the remaining tax-lots, which tax-lot sale candidate would generate the greatest **After-Tax Annual Average Recommendation Advantage**, or excess, risk adjusted, return, if desired. Thereby becoming the second tax-lot in

sequence to sell in an optimization process. Repeating that reiterative process until all tax-lots are ranked in descending order of potential Alpha forecasted, if any.

*And then after all tax-lot candidates that would generate an extra return if sold are identified and ranked, an **Efficient Tax Portfolio Optimizer Analysis** converts the ranking sequence such that tax-lots with the least **Existing Tax-Lot After-Tax IRR** are suggested to be sold first. In the end, resulting in a ranking that recommends the selling of tax-lots that are likely to generate the greatest excess return first, and ultimately keeping those tax-lots with the greatest after-tax return potential remaining.*

*Because a stock at a loss generates higher after-tax proceeds to be reinvested because of the extra proceeds of the tax savings value of the loss, than a stock at a profit with a tax liability that reduces after-tax proceeds available for reinvestment, the amount of losses or profits greatly impacts end-of-horizon after-tax value net calculations. And therefore an ultimate ranking or sequencing of the attractiveness and value-added of all tax-lots within a portfolio. That is how **ETPO** minimizes taxes, but doesn't sacrifice future after-tax wealth accumulation by doing so.*

*An **Efficient Tax Portfolio Optimizer Analysis** has five steps to its Optimization process. As one can understand, inputting up-to-date realized gain and loss values is critically important in the portfolio optimization process. Keeping in mind that there are many reasons to sell a stock other than valuation, such as having too much of any one stock, **Efficient Tax Portfolio Optimizer** provides the user, at three different points of time, with the flexibility of **Designating** any number of shares to sell from any specific existing tax-lot, as an independent decision. Therefore all such Designations are accounted for prior to any optimization process. Resulting in the ability to accrue and display gross and after-tax proceeds of any tax-lot sale Designations. While updating the realized gain and loss values in a reiterative fashion, as a precursor to the full optimization process. So that an accurate accounting of any resulting impacts on realized gain and loss values will be calculated for any such Tax-Lot Sale Designations.*

*In Step 2 of the **Efficient Tax Portfolio Optimizer** optimization process, we recognize that an investor may want to sell or designate for sale, a specified number of shares from a position. But in many cases, a position may be made up of more than one tax-lot. For example, 500 shares of Facebook may be owned across seven different tax-lots purchased on different days. Some with gains, some with losses, some owned short-term and some owned*

long-term. And because of the position's increased portion of a portfolio due to its rise in price, an owner may want to sell 175 shares, but doesn't know which shares should be sold from the possible seven tax-lots in the 500 share position.

*An **Efficient Tax Portfolio Optimizer Analysis** will determine which shares from which tax-lot, if sold, are forecasted to generate the highest after-tax extra return by doing so. And if further Designated shares are directed to be sold than are contained in the highest forecasted excess return tax-lot candidate, then the realized gain or loss impact of the highest ranked sale candidate will be inputted in the remaining tax-lots in a position, to determine which, among them represents the highest Alpha candidate. And so on and so forth. And then, if more shares are Designated to be sold, than would generate a forecasted Alpha if sold, additional share sales would come first from any residual tax-lot, that if shares were sold from, contain the least after-tax return potential remaining. Again updating the realized gain and loss impacts from a ranked reiterative process. Therefore keeping tax-lots with the greatest after-tax return potential within a position.*

With all else being equal, short-term losses would be sold first, then long-term losses, then long-term gains, and then finally short-term gains. Remembering however that a long-term loss that is more than twice as much as a short-term loss, there is likely to be more tax avoidance tax savings value from the long-term loss than a short-term loss. And that is also taken into account in the ranking process.

Any Residual Shares not sold via a designation, are then included in the main optimization process, whereby again, tax-lots in the 4th Step of the optimization process, are ranked to be sold in a sequence such that those that would generate the greatest After-Tax Alpha are sold first. And in the 5th Step, any remaining tax-lots still suitable for ownership, are ranked as a sale candidate from the least after-tax return potential remaining to the highest. On a risk-adjusted basis if desired. Fortunately then, future after-tax returns are forecasted to come from existing tax-lots with greater after-tax return potential remaining.