

Tax Optimization in Portfolio Management using A.I.

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Outline of the talk

- See the effect of taxes on returns on the investments
- Evaluate the effectiveness of buy-and-hold for taxable accounts
- Design a tax-optimized investment management system
- Example to show the impact of tax-optimized system
- Reveal the most important aspect in tax optimization

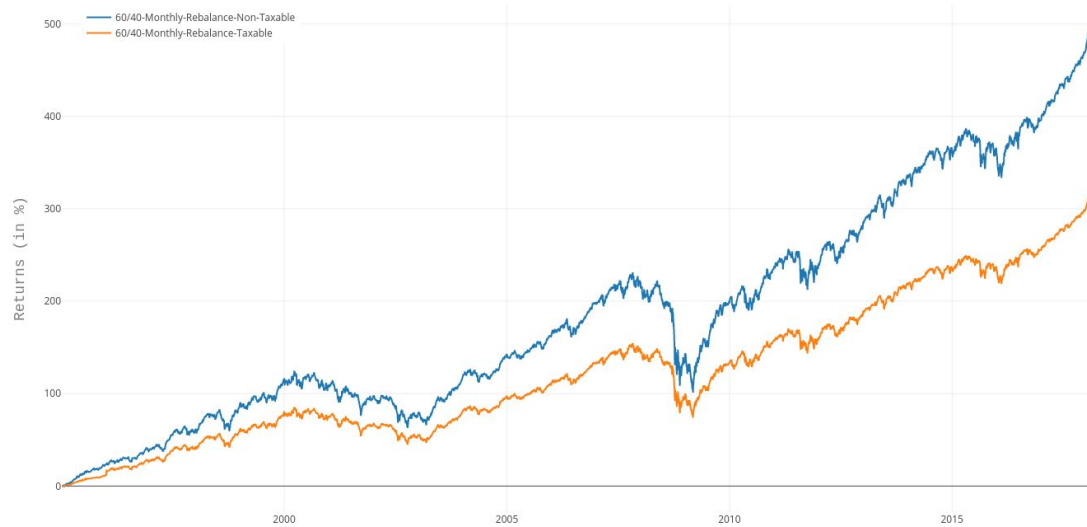


Taxation on Investment Returns

- Short Term Gains
- Non-Qualified Dividends
- Qualified Dividends
- Long Term Gains



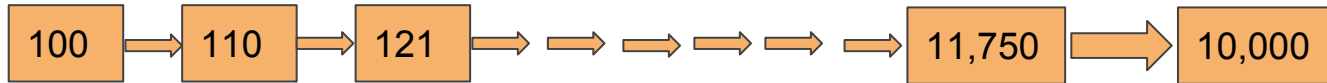
Effect of Taxes on Returns



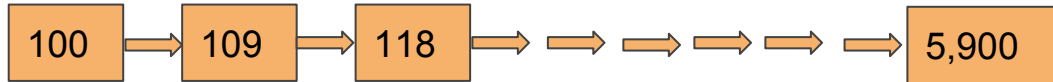


Buy & Hold seems to work

Scenario 1 : Tax Deferred till withdrawal

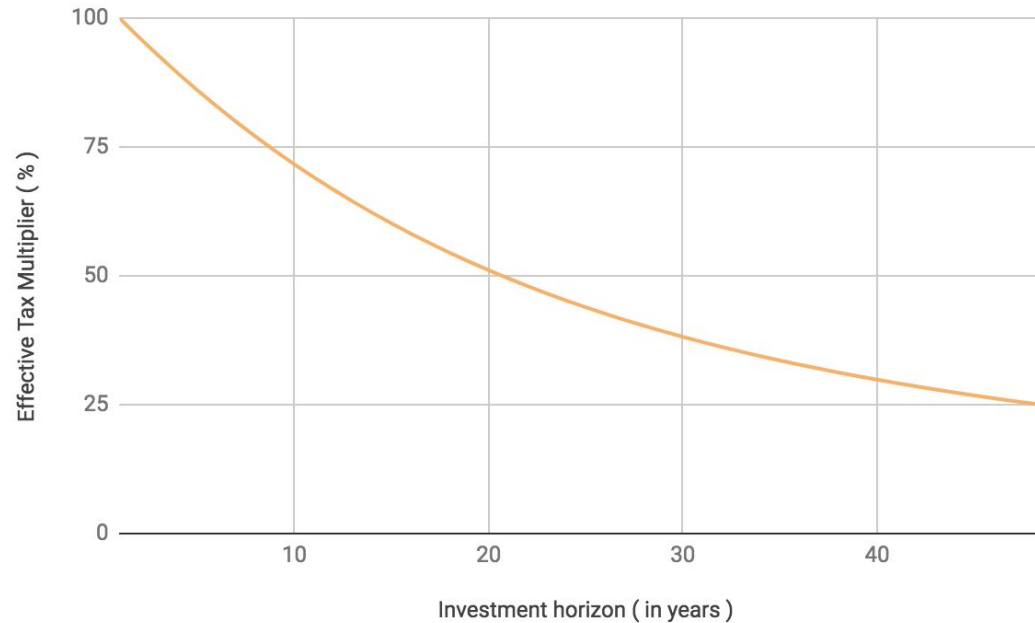


Scenario 2 : Tax paid at every year





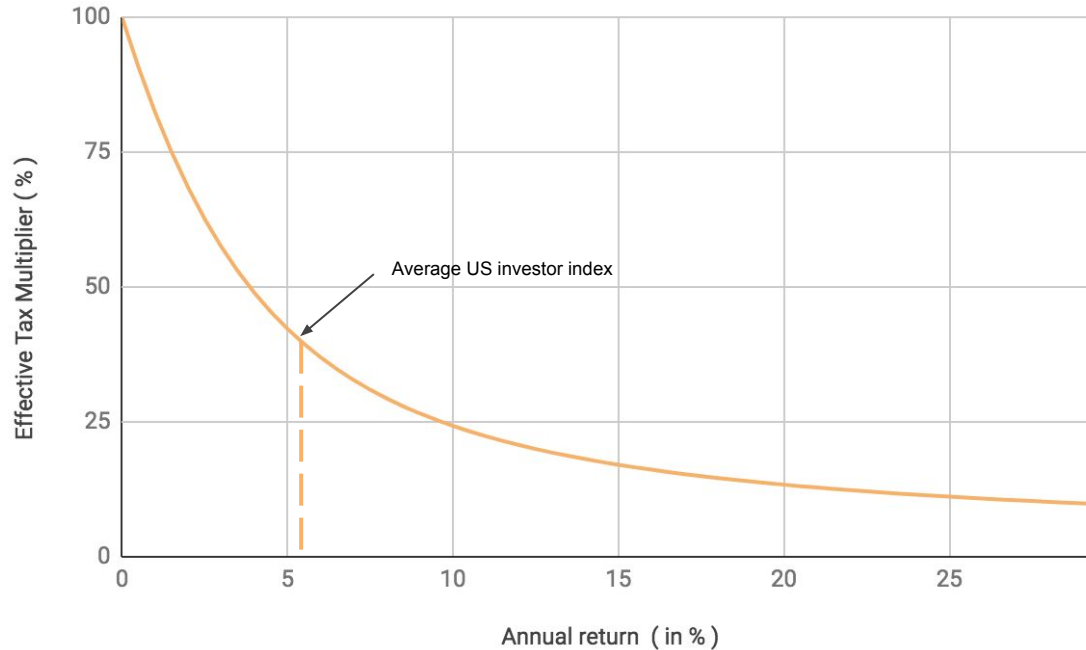
Reduction in Taxes vs Buy and Hold Investment Horizon



*Effective tax multiplier = Effective tax Paid at Withdrawal annualized for the investment duration / Actual tax paid at every year * 100

** Assumed 10% Annual return and 20 % Annual taxes on Capital Gains

Benefits of Tax Deferral are much lower at lower Rates of Return



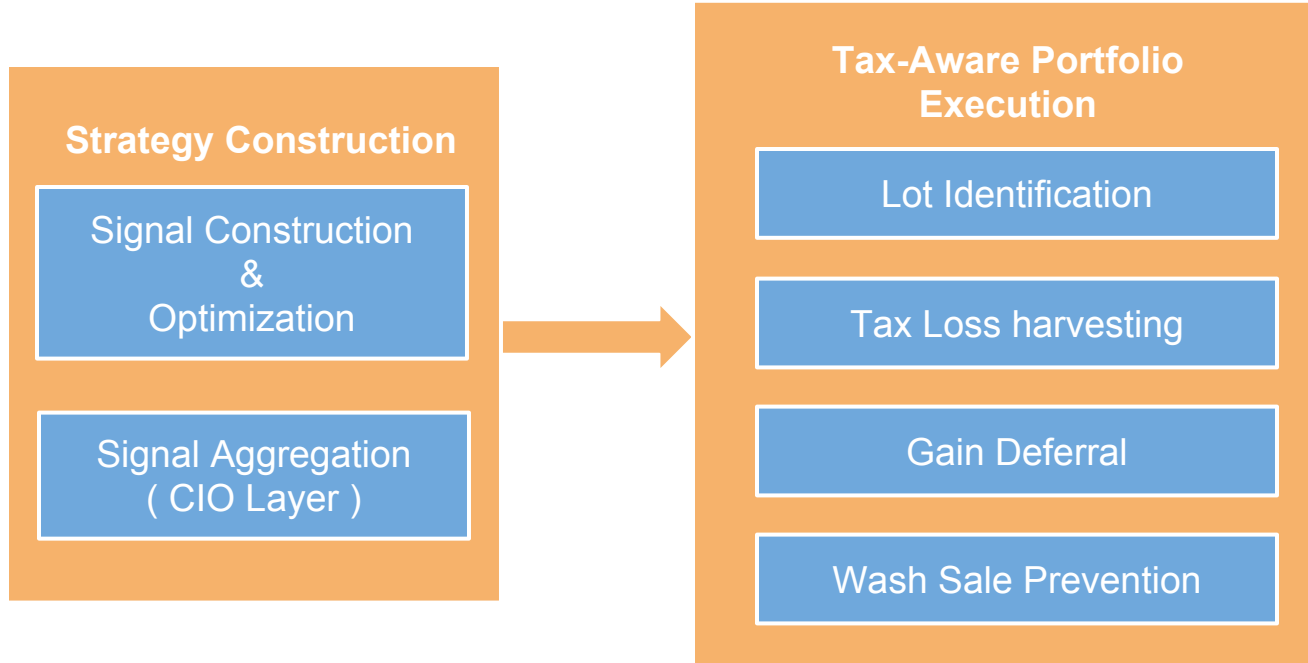
*Effective tax multiplier = Effective tax Paid at Withdrawal annualized for the investment duration / Actual tax paid at every year * 100

** Assumed 20 % Annual taxes on Capital Gains with an investment horizon of 30 years

*** Average US investor index (5.5 % Annual) taken from [gplum US investor index](#)



System Overview





Strategy Construction

- Strategy Construction for Taxable
 - Turnover
 - Signals with higher long term unrealized gains
 - Post-tax returns



Tax-Aware Portfolio Execution

- Tax Loss Harvesting and Gain Deferral
 - Loss to be offset against gains
 - Defer gains to reduce realization of gains
- Wash Sale Prevention
 - Avoid frequent turnover of identical securities
 - Remain close to allocation



Example of how well tax-optimization could work

Evaluation Period	Annualized Pre-Tax Return	Annualized Post-tax return	Optimized Annualized Post-Tax Return
Jan-2013 to Dec-2017	7.57 %	6.08 %	7.72 %

These are hypothetical results. Hypothetical performance results have many inherent limitations, some of which are described below. No representation is being made that any account will or is likely to achieve profits or losses similar to those shown. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently achieved by any particular trading program. Please see important disclosures at the end of this document to learn more.



The most important avenue for Tax Optimization

Continuous Portfolio Management

Add Funds

Withdraw Funds

Account Transfer
(ACATS)



The most important avenue for Tax Optimization

- Partial withdrawal from investment accounts
- Shifting to a new investment manager
 - Minimise the tax impact
 - Keep portfolio allocation close to desired
- Adding new capital to the investment account



THANK YOU !

Please email your questions to:
contact@qplum.co

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