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Using Tax Alpha to Measure Tax Efficiency

Tax alpha is a measurement of tax efficiency that attempts to isolate the value of active tax-management by comparing a manager versus a passive benchmark. This metric is preferred at Parametric over alternative measures of tax efficiency because it shows the investor's actual tax experience and uses a custom benchmark to put the results in perspective. This brief explains what we see as the shortcomings of other ways used to measure tax efficiency, and how Parametric calculates tax alpha.

Alternative Tax Efficiency Metrics

The primary shortcoming of using alternative metrics such as turnover, unrealized gains, or loss carry forwards is that they can only indicate the potential tax experience. They do not measure the actual experience. As a result, two portfolios with the same alternative metric may experience very different after-tax performance. High turnover could generate realized losses or realized gains, and they could be short-term or long-term. A portfolio realizing short-term gains would typically have a lower after-tax return than a similar one realizing short-term losses. Sizeable unrealized gains could produce realized gains in the near-term, could continue to be deferred for many years, or may shrink due to market movements and become inconsequential. Portfolios with equal amounts of unrealized gains could take any of these paths, experiencing very different after-tax returns along the way. Similarly, in the case of two portfolios with comparable loss carry forwards, one could take additional losses and the other could experience excess capital gains, also producing very different after-tax returns.

A slightly more preferable method is to simply compare the portfolio's after-tax return against its pre-tax return. Morningstar reports this for funds as the "tax cost ratio". Although this is at least based on the investor's actual tax experience, overcoming the shortcoming of the prior metrics, it still fails to provide any context for the market conditions that may be influencing the after-tax results. In other words, it doesn't explain if the after-tax return was any better for the effort made to improve it. The relationship between a portfolio's pre-tax and after-tax returns is likely to vary over time as the potential to take losses or gains varies. Without a reference point, it is difficult to discern whether a relatively poor ratio indicates negligent tax management, or broad upward price movement across stocks. Conversely, in a market sell-off, a portfolio may have a relatively high ratio simply because of the ample opportunity to realize losses, not due to any particular skill or tax management objective.

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In light of this, we argue that after-tax returns, like pre-tax returns, are best understood relative to a benchmark. Just as an investor with an annual pre-tax return of 15% might be reasonably pleased by the result until she learned that the benchmark returned 29% in the same period, or a -15% return might actually seem like good news in comparison to -29% for the benchmark, an after-tax return figure is less meaningful without a reference point. Parametric prefers to report client after-tax returns relative to an after-tax benchmark and measure the results in terms of tax alpha rather than any of the alternative metrics described above.

Tax Alpha Defined

Parametric defines tax alpha as the portfolio's excess after-tax return relative to a benchmark, adjusted for any excess pre-tax returns.

$$\begin{aligned} \text{Tax Alpha} &= \text{Excess After-tax Return} - \text{Excess Pre-tax Return} \\ \text{Excess After-tax Return} &= \text{After-Tax Return}_{\text{Portfolio}} - \text{After-Tax Return}_{\text{Benchmark}} \\ \text{Excess Pre-tax Return} &= \text{Pre-Tax Return}_{\text{Portfolio}} - \text{Pre-Tax Return}_{\text{Benchmark}} \end{aligned}$$

As explained above, by comparing the portfolio's after-tax return to a benchmark, rather than simply its pre-tax return, we are able to more clearly discern the manager's skill from the normal variation in tax-management opportunities.

Although the excess after-tax return portion of the calculation is intuitive in an alpha metric, the pre-tax return adjustment may be less so. This stems from Parametric's dual mandate to seek superior after-tax returns while tracking the benchmark on a pre-tax basis. Over longer periods, we would expect the portfolio's cumulative excess pre-tax return to be zero. However, it will likely over- or under-perform the benchmark on a pre-tax basis in any given period as the portfolio's composition will differ somewhat from the benchmark in order to allow for active tax management. (The larger the tracking error is allowed to be, the larger magnitude of this variation will likely be.) Therefore, Parametric's tax alpha calculation removes any excess pre-tax return in order to account for its impact on the after-tax return.¹ This ensures that tax alpha is not biased upward by pre-tax outperformance or downward by underperformance, as neither outcome is intended or relevant to the tax-management objective. Essentially, tax alpha is only positive if the excess after-tax return is greater than any excess pre-tax return. In periods with no excess pre-tax return, tax alpha is simply the excess after-tax return.

In the table below, we illustrate the impact of excess pre-tax return on the tax alpha calculation. In both cases, the portfolio's after-tax return exceeds that of the simulated benchmark by 0.05%. Simply focusing on that would lead one to believe that the portfolio achieved value from tax-management in both cases. However, this ignores the fact that in the first case the portfolio's pre-tax return was higher than that of the benchmark, which will always produce a higher after-tax return for any given level of tax-management. Once we adjust for the excess pre-tax return, there was no tax alpha. In the second case, the portfolio did experience positive tax alpha as the excess after-tax return was greater than the excess pre-tax return.

¹ After-tax Return = Pre-tax Return - (Net Capital Gains Taxes + Dividend Taxes)/Weighted Market Value. For any given level of dividends or realized capital gains, the higher the pre-tax return the higher the after-tax return.

Figure 1: Impact of Excess Pre-tax Return on the Tax Alpha Calculation

Scenario	After-tax Return			Pre-tax Return			Tax Alpha
	Portfolio	Benchmark	Excess	Portfolio	Benchmark	Excess	
No Tax Alpha	1.85%	1.80%	0.05%	1.89%	1.84%	0.05%	0.00%
Positive Tax Alpha	1.85%	1.80%	0.05%	1.80%	1.84%	-0.04%	0.09%

Source: Parametric. These hypothetical scenarios are for illustrative purposes only. This is not representative of any client portfolio.

Tax Alpha in Practice

One reason many advisors or investors may tend to prefer more simplistic metrics than tax alpha is that computing accurate after-tax returns for a benchmark is no trivial matter. Parametric maintains an after-tax benchmark for each tax-managed client portfolio, in a manner similar to the “Shadow Portfolio” approach described by the United States Investment Performance Committee.² Essentially, this allows us to compare the value of our tax management against the tax experience of passive, single-security investment in an index, tailored for certain client specific aspects. Though data intensive, this allows for a more accurate assessment. The after-tax returns for a benchmark with the same pre-tax returns and turnover will differ depending on the embedded gains or losses, which in turn depend on when the portfolio was inception and what the client specific flows were. By correctly specifying a benchmark for each client, we can measure whether our tax management process has improved the client’s after-tax experience relative to a tax-oblivious investment.

Summary

Tax alpha is Parametric’s preferred metric for measuring tax efficiency because it gives investors a context in which to measure the after-tax returns and helps isolate the value of active tax-management. Only by comparing the portfolio against a simulated client-customized, after-tax benchmark can we truly understand the conditions impacting the opportunities for tax-management and gauge a manager’s effectiveness.

² See Parametric Research Brief “Benchmarking After-tax Performance.” Available upon request.

About Parametric

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