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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. The primary shortcoming of using alternative metrics such as turnover, unrealized gains, or loss carryforwards is that they can only indicate the investor's potential tax experience—not their actual experience. Just as an investor with an annual pretax 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.

This brief explains how Parametric calculates tax alpha and what we see as the shortcomings of other ways used to measure tax efficiency.

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The pitfalls of alternative tax efficiency metrics

Two portfolios using the same alternative tax efficiency 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. Sizable unrealized gains could produce realized gains in the near term, continue to be deferred for many years, or 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 carryforwards, 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 pretax 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 pretax and after-tax returns is likely to vary over time as the potential to take losses or gains varies. Without a reference point, it's 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.

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 pretax returns.

$$\text{Tax alpha} = \text{excess after-tax return} - \text{excess pretax return}$$

$$\text{Excess after-tax return} = \text{after-tax return}_{\text{portfolio}} - \text{after-tax return}_{\text{benchmark}}$$

$$\text{Excess pretax return} = \text{pretax return}_{\text{portfolio}} - \text{pretax return}_{\text{benchmark}}$$

As explained above, by comparing the portfolio's after-tax return to a benchmark, rather than simply its pretax return, we're 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 pretax 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 pretax basis. We'd expect the portfolio's cumulative excess pretax return to be zero over longer periods. However, it'll likely overperform or underperform the benchmark on a pretax 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.)

Parametric's tax alpha calculation therefore removes any excess pretax return in order to account for its impact on the after-tax return.¹ This ensures that tax alpha isn't biased upward by pretax outperformance or downward by underperformance, since 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 pretax return. In periods with no excess pretax return, tax alpha is simply the excess after-tax return.

We illustrate the impact of excess pretax return on the tax alpha calculation in figure 1. 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 the portfolio's pretax return in the first case is higher than that of the benchmark, which will always produce a higher after-tax return for any given level of tax management. There's no tax alpha once we adjust for the excess pretax return. In the second case, the portfolio does experience positive tax alpha as the excess after-tax return is greater than the excess pretax return.

Figure 1: Impact of excess pretax return on the tax alpha calculation

Scenario	After-tax return			Pretax 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 This essentially 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 pretax 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.

Conclusion

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 and client-customized after-tax benchmark can we truly understand the conditions impacting the opportunities and effectiveness of tax management.

¹ After-tax return = pretax return – (net capital gains taxes + dividend taxes) ÷ weighted market value. For any given level of dividends or realized capital gains, the higher the pretax return, the higher the after-tax return.

² See Parametric Research Brief "Benchmarking After-Tax Performance." Available upon request.

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