



THE BAM ALLIANCE®

INVESTMENT POLICY RESEARCH:

Asset Location Ordering

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July 2016

Our Investment Policy Research articles provide an in-depth look at due diligence that has been completed by BAM's investment policy committee (IPC). We hope you find these articles to be educational and that they offer insight into the policies formed by our IPC.

Background

Asset location can have a material impact on an investor's after-tax returns. More tax-efficient assets should be held in taxable accounts while less tax-efficient assets should be held in tax-advantaged accounts.

Estimating the Return Lost to Taxes

We considered two approaches to gauge the tax efficiency of different equity strategies. One approach is to estimate the effective tax rate by comparing the returns on the strategy to the after-tax returns. To estimate the effective tax rate, we first divide the after-tax returns by the pretax returns. This gives the percentage of returns retained by the investor. To estimate the tax losses, we simply subtract this ratio from one. This approach, however, is limited when the returns of the fund are low or negative. A second approach is to use the tax cost ratio, which is similar to an expense ratio but reflects the estimated percentage lost to taxes over the period. Unlike an expense ratio, however, we should note that this number is not stated prior to investing and will vary depending on what time period you consider.

Although we do not have after-tax returns for all strategies, we can use a number of funds from Dimensional Fund Advisors and Bridgeway Capital Management to evaluate the

tax effectiveness of the asset classes. For these comparisons, we assume the investor was in the highest federal bracket at the time of the distribution, but pays no state taxes.

| Strategy | Gross Returns (%) | After-Tax Returns (%) | Effective Tax Rate | Tax Cost Ratio | Inception |
|---|-------------------|-----------------------|--------------------|----------------|-----------|
| DFA TA World ex US Core Equity Portfolio | 0.96 | 0.59 | 39% | 0.37% | Apr-08 |
| DFA TA US Core Equity 2 Portfolio Class I | 5.92 | 5.53 | 7% | 0.37% | Nov-07 |
| DFA Tax-Managed US Marketwide Value Portfolio II | 6.82 | 6.36 | 7% | 0.43% | Jan-99 |
| DFA Emerging Markets Core Equity Portfolio Class I | 7.40 | 6.93 | 6% | 0.44% | May-05 |
| Bridgeway Omni Tax-Managed Small-Cap Cap Value | 8.24 | 7.75 | 6% | 0.45% | Jan-11 |
| DFA Tax-Managed International Value Portfolio | 4.86 | 4.28 | 12% | 0.55% | May-99 |
| DFA World ex US Targeted Value Portfolio | 5.91 | 5.25 | 11% | 0.63% | Dec-12 |
| DFA International Small Cap Value Portfolio Class I | 7.28 | 6.31 | 13% | 0.90% | Jan-95 |

Calculations made on annualized returns since inception for each fund. All returns are net of the expense ratio.
Sources: Dimensional's Returns 2.0 program and Bridgeway

Using annualized returns for each fund since inception, we find international value funds tend to be less tax efficient than most U.S. funds. The DFA TA World ex US Core Equity Portfolio appears to be an exception looking only at the effective tax rate. However, this fund returned less than 1 percent on an annualized basis since inception, so this is a great example of why the tax cost ratio is a better gauge for tax efficiency.

Recommended Priority

Including estimated tax consequences for AQR Style Premia and the expected taxes on taxable bonds, Buckingham's IPC recommends the following priority for different asset classes in tax-advantaged accounts:

| Priority | Asset Class |
|----------|------------------------------|
| 1 | Style Premia/Commodities |
| 2 | REITs |
| 3 | Fixed Income (taxable bonds) |
| 4 | International Small Value |
| 5 | International Large Value |
| 6 | Emerging Markets |
| 7 | U.S. Small Value |
| 8 | U.S. Large Value |
| 9 | International Core |
| 10 | U.S. Core |

We prefer to hold items at the top of the list in a tax-advantaged account because they are expected to be the least tax-efficient.

What if Investors Don't Have Space in a Tax-Advantaged Account?

Investors who do not have enough space in their tax-advantaged accounts should make two considerations. First, this analysis assumed the investor was in the highest tax bracket. Investors in lower tax brackets will be less affected by the tax losses so the difference between the gross returns and the after-tax returns will be less defined.

The second consideration is the trade-off between the benefits of diversification and the resulting tax implications. Diversification helps stabilize the portfolio because poor performance in any one asset class will have less of an impact to the overall portfolio. With the exception of commodities, we believe these asset classes provide enough diversification benefits that they warrant inclusion in a portfolio, even if it means holding them in a taxable account. While REITs and Style Premia are not tax-efficient investments, their pretax returns are high enough that they still provide significant after-tax returns.

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