Insights
Index Investing

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A Deep Dive Into Tax Withholding's Effects on Benchmark Returns

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We believe that relative return, or the return difference between the fund and the index over a specified period, is the most suitable calculation to evaluate fund performance and attribution for passive strategies. However, investors must determine *which* index return is most instructive in assessing how a manager measures up to its peers and behaves in relation to its benchmark. In this piece, we discuss three distinct types of index returns that are all useful in evaluating relative return, as each one provides specific information on certain aspects of fund performance. In particular, we explain how net return can provide a more comprehensive view of performance for tax-sensitive investors, and we give an example of the impact of tax withholding on returns.

Price Return

The price return is calculated by the change in price of the stocks held in the index over a specified period. The impact of each stock on the return will depend on the stock's weight in the index. Price index return does not account for any dividend income or other corporate action events, such as rights issues.

Price index returns are useful for managers who want to calculate the portion of the total return difference caused by stock weight differences and price appreciation/depreciation, excluding income earned from dividends. Intuitively, analysis using price return on a fully replicated portfolio, one in which the fund's stock weights closely match those of the index, is expected to result in relatively small differences in return between the fund and index.

Notably, price returns may be used to evaluate optimized portfolios. For example, if a client wants a manager to build a portfolio indexed to the S&P 500 Index but with a restriction on owning energy stocks, the manager may use a risk model to optimize a portfolio that cuts energy stocks, but increases the weights of other index stocks with similar characteristics to help minimize expected tracking error. The optimized portfolio is more likely to have higher security weight differences in the short term than a fully replicated portfolio. In this example, the manager can measure the effectiveness of the optimized portfolio relative to the S&P 500 Index by calculating relative performance using price returns.

Gross Return

This can also be referred to as "total return." Gross return calculations include dividends and other income that is reinvested back into the index on the ex-dividend date,[1] on a tax-free basis. This type of index return can be used to determine the portion of the total index return that is generated from ex-dividends. However, the use of gross index returns for fund performance is limited because most portfolios likely accrue tax withholding on dividends, resulting in a mismatch between the fund and index. That said, in some instances, such as for our US indexed commingled funds managed in the United States, the use of gross fund performance is appropriate because the fund accrues dividends on a tax-free basis.

Net Return

The net index return incorporates the price movement from the underlying stock constituents, dividends reinvested back into the index on the ex-date, and the tax withholding on dividends. The industry standard is to use net index return to better estimate the tax impact on global indexed strategies on a comparative basis. Although net index return is the optimal choice for global strategies, there is no perfect way to measure the tax impact on fund returns. Further attribution analysis is required to explain tax withholding differences between the fund and the index.

Getting Into the Details: Withholding Taxes and Net Return

Index vendors assume specific country tax rates to calculate the net index returns. For most vendors, the highest country tax rates are applied to their returns to provide a floor or "worst-case scenario" tax impact on returns.

The country tax rates applied to the fund will vary depending on the tax filing status of the underlying client or fund. Further attribution analysis is required for most institutional clients to explain the tax differences applied to the fund and index, since most index vendors do not include any adjustments for non-resident institutional investors who benefit from double taxation treaties in certain countries (see next section for more information). MSCI, for instance, uses the tax rate for a Luxembourg-based investor in all cases. While US investors do pay taxes when invested in a developed market international fund, the rate that they pay may be more favorable when treaty benefits are applied. See Figure 1 for tax withholding rates used by three major index vendors.

Figure 1
Index Tax Withholding Rates May Not Consider Country Tax Treaties
2021–2022 Index Tax Withholding Rates

World Markets	MSCI (%)	S&P (%)	FTSE Russell (%)
Australia	30.00	30.00	30.00
Austria	27.50	27.50	27.50
Belgium	30.00	30.00	30.00
Canada	25.00	25.00	25.00
Denmark	27.00	27.00	27.00
Finland	35.00	30.00	35.00
France	25.00	25.00	25.00
Germany	26.38	26.38	26.38
Greece	5.00	5.00	5.00
Hong Kong	0.00	0.00	0.00
Ireland	25.00	25.00	25.00
Israel	25.00	25.00	25.00
Italy	26.00	26.00	26.00
Japan	15.32	20.42	15.32
Luxembourg	15.00	15.00	15.00
Netherlands	15.00	15.00	15.00
New Zealand	15.00	30.00	30.00
Norway	25.00	25.00	25.00
Portugal	25.00	25.00	25.00
Singapore	0.00	0.00	0.00
Spain	19.00	19.00	19.00
Sweden	30.00	30.00	30.00
Switzerland	35.00	35.00	35.00
United Kingdom	0.00	0.00	0.00
United States	30.00	30.00	30.00

Sources: **MSCI**: https://msci.com/eqb/methodology/meth_docs/MSCI_IndexCalcMethodology_Jan2021.pdf; **FTSE**: https://ftserussell.com/products/indices/withholding-tax-service; **S&P**: https://spglobal.com/spdji/en/documents/additional-material/withholding-tax-index-values.pdf.

What Does This Mean for the US Institutional Investor?

The United States has tax treaties with a number of developed foreign countries.[2] Also referred to as “double taxation agreements,” the intention of these tax treaties is to reduce or eliminate double taxation on income that is received from sources within foreign countries. This taxation benefit can be applied at source or through the tax reclaim process. When the taxation benefit is applied at source (French source dividends), the investor immediately receives the amount of the income of the reduced withholding rate. Under the reclaim method (German income), the investor will be impacted by the full domestic withholding rate and will receive the refund after filing for the tax reclaim. **Importantly, not all US institutional investors are subject to the same withholding rates and tax benefits.** Clients that have investments in separately managed accounts will benefit from making sure that their tax status and tax treatment are accurate during any fund onboarding process.

Filing for tax relief due to double taxation treatments is a critical part of the onboarding process, as it may lower a client’s tax basis. For example, in the United States, all ERISA-developed ex-US funds will outperform their regulated investment company (RIC) and common trust fund (CTF) counterparts on a net basis due to a lower tax basis (see Figure 2).

Figure 2
Tax Rates Vary by Type of Fund

Country	US CTF	US ERISA			US RIC		
	Net (%)	Gross (%)	Reclaim (%)	Net (%)	Gross (%)	Reclaim (%)	Net (%)
World Markets							
Australia	30.00	0.00	0.00	0.00	15.00	0.00	15.00
Austria	27.50	27.50	12.50	15.00	27.50	12.50	15.00
Belgium	30.00	30.00	30.00	0.00	30.00	15.00	15.00
Canada	25.00	0.00	0.00	0.00	15.00	0.00	15.00
Denmark	27.00	27.00	12.00	15.00	27.00	12.00	15.00
Finland	30.00	15.00	15.00	0.00	15.00	0.00	15.00
France	25.00	25.00	10.00	15.00	15.00	0.00	15.00
Germany	26.38	26.38	26.38	0.00	15.00	0.00	15.00
Greece	5.00	5.00	0.00	5.00	5.00	0.00	5.00
Hong Kong	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ireland	25.00	0.00	0.00	0.00	0.00	0.00	0.00
Israel	25.00	25.00	0.00	25.00	25.00	0.00	25.00
Italy	26.00	15.00	0.00	15.00	15.00	0.00	15.00
Japan	15.32	0.00	0.00	0.00	10.00	0.00	10.00
Luxembourg	15.00	15.00	0.00	15.00	15.00	0.00	15.00
Netherlands	15.00	15.00	15.00	0.00	15.00	0.00	15.00
New Zealand	30.00	15.00	0.00	15.00	15.00	0.00	15.00
Norway	25.00	25.00	0.00	25.00	25.00	0.00	25.00
Portugal	25.00	15.00	0.00	15.00	15.00	0.00	15.00
Singapore	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Spain	19.00	19.00	19.00	0.00	19.00	4.00	15.00
Sweden	30.00	0.00	0.00	0.00	15.00	0.00	15.00
Switzerland	35.00	35.00	35.00	0.00	35.00	20.00	15.00
United Kingdom	0.00	0.00	0.00	0.00	0.00	0.00	0.00
United States	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source: State Street Global Advisors Tax Center of Excellence, as of September 30, 2022.

An Example: Annual Effects of Tax Withholding Differences

Understanding the tax differences between different fund vehicles is imperative for clients, as the withholding benefit can at times be the single largest attributing factor of outperformance for many passive global mandates. Figure 3 shows the 2021 tax impact on returns across some of the most popular MSCI indices and their ERISA and RIC counterparts. We see that ERISA funds managed to the MSCI EAFE Net Index generate very different returns from RIC funds, due to differing tax statuses. In 2021, an ERISA-replicated EAFE fund generated 38 basis points (bps) of tax-related outperformance relative to the benchmark, while a similarly managed mutual fund under the RIC tax status generated 21 bps. The tax difference results in 17 bps of additional outperformance for MSCI EAFE ERISA funds and provides a distinct tax advantage over comparable mutual funds or exchange-traded funds.

Figure 3
Tax Status Can Meaningfully Impact Relative Return

	Year 2021			
Index	**Gross Dividend Yield (%)**	**ERISA Tax-Related Difference to the Index (%)**	**RIC Tax-Related Difference to the Index (%)**	**ERISA Versus RIC Tax Benefit (%)**
MSCI EAFE	2.71	0.38	0.21	**0.17**
MSCI EAFE IMI	2.65	0.37	0.20	**0.17**
MSCI WORLD eX US	2.71	0.42	0.22	**0.20**
MSCI WORLD ex US IMI	2.65	0.40	0.21	**0.19**
MSCI WORLD	1.82	0.41	0.34	**0.07**
MSCI WORLD IMI	1.80	0.40	0.34	**0.07**
MSCI ACWI ex US	2.06	0.29	0.15	**0.14**
MSCI ACWI ex US IMI*	2.03	0.28	0.15	**0.14**
MSCI ACWI	1.70	0.36	0.30	**0.06**
MSCI ACWI IMI	1.68	0.35	0.30	**0.06**

* See Below for Further Detail.

MSCI ACWI ex US IMI Country Detail	**Gross Dividend Yield (%)**	**ERISA CIT Tax Rate (%)**	**Mutual Fund Tax Rate (%)**	**Weight in MSCI ACWI ex US IMI (%)**	**Impact on Total Benefit (%)**
Japan	2.10	0	10	15.88	**0.03**
Canada	2.68	0	15	6.74	**0.03**
Switzerland	2.63	0	15	5.63	**0.02**
Germany	2.27	0	15	5.54	**0.02**
Sweden	3.08	0	15	2.66	**0.01**
Australia	3.88	0	15	4.64	**0.01**
Netherlands	1.59	0	15	2.57	**0.01**
Spain	1.68	0	15	1.50	**0.00**
Finland	2.79	0	15	0.72	**0.00**
Belgium	2.24	0	15	0.66	**0.00**
Remaining Countries	—	—	—	53.47	**0.00**
MSCI ACWI ex US IMI	—	—	—	**100.00**	**0.14**

Source: State Street Global Advisors, MSCI, for calendar year 2021.

Conclusion

We discussed three types of index returns that can all be useful, as each one measures a different aspect of performance.

- Price Return
- Gross (Total) Return
- Net Return

Price return can help an investor to understand the significance of having different security weights versus the benchmark. Gross, or total return takes dividends into account but not tax status, while net return does take tax withholding into account. In our view, it is important for investors to consider tax status when looking at performance versus a benchmark and evaluating the efficacy of various return metrics. The tax status of an investor can meaningfully impact returns. We look forward to continuing to liaise with clients about the methodologies for evaluating manager performance, and the ways to ensure relative return calculations are comprehensive enough for investors to draw helpful conclusions.

Endnotes

1 The ex-dividend date is the day on which all shares bought and sold no longer come attached with the right to receive the most recently declared dividend.

2 See: https:/irs.gov/businesses/international-businesses/united-states-income-tax-treaties-a-to-z.

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* Pensions & Investments Research Center, as of December 31, 2021.
† This figure is presented as of September 30, 2022 and includes approximately $55.12 billion USD of assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated. Please note all AUM is unaudited.

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