Technical factors of ETF investing for tax-exempt investors

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Exchange-traded funds (ETFs) have been gaining popularity in global markets, offering various types of investors a convenient vehicle for strategy implementation. Whether investors wish to simply replicate an index or to actively seek alfa, they can find an ETF or combination of ETFs that will satisfy their investment aims. But despite the ease of ETF trading, there are technical factors important to determining the efficiency of the investment outcome (low costs/tight tracking/low access cost).

Although investors such as pension funds or central banks have certain advantages by virtue of their tax-exempt status, they still need to take taxation into account. Taxes affect the total cost of ownership (TCO) of an ETF, via the withholding tax (WHT) payable on the dividends arising from the fund's underlying securities. Depending on the ETF's domicile, dividends on securities issued in different countries are subject to different tax regimes. For example, the WHT on underlying US securities is 0% for funds domiciled in the United States, 15% for funds in Ireland, and 30% for funds in Luxembourg.

This tax cannot be reclaimed even by tax-exempt investors. Table 1 shows this tax impact on ETFs that track probably the most popular global equity benchmark – MSCI All World (MSCI ACWI). MSCI ACWI covers large and mid-cap companies from both emerging market and advanced economies, making it a good way to illustrate how WHT on distributions differs from country to country. The precise tax impact is calculated for ETFs from three different domiciles. For all countries

shown, the index-weighted gross dividend yield is outweighed by the WHT (differing between domiciles).

This table shows that the United States is the most favourable domicile for ETFs tracking the MSCI ACWI, offering investors a 34 bps premium over funds domiciled in Luxembourg (as of 28 February 2018). Nevertheless, ETFs subject to higher tax rates could still be more suitable for tax-paying investors or investors who need to take other factors into account.

An EFT's total expense ratio (TER) is the measure that investors usually focus on. Under an industry-wide agreement, the TER is quoted in the Key Investor Information Document (KIID). The TER is deducted pro rata on a daily basis and it remains at a fixed value (unless the ETF sponsor changes it).

Investors should be aware, however, that besides the TER, they need to consider WHT (as explained above), securities-lending revenue, and trading spread. All these items together (including the TER) constitute what is called the total cost of

Table 1 WHT impact on dividends for ETFs with different domiciles

MSCI WORLD at 28 Feb 2018 Index Gross Dividend Yield = 2,4%			Index Net Dividend Yield		Irish ETF		US ETF		Luxembourg SICAV	
	Country Weight in Index	Country Gross Dividend Yield	Index Weighted Dividend Yield	Country WHT Rate	Tax Impact	Country ETF-domiciled WHT Rate	Tax Impact	Country ETF-domiciled WHT Rate	Tax Impact	Country ETF-domiciled WHT Rate	Tax Impact
USA	58.29%	1.88%	1.10%	30.00%	-0.33%	15.00%	-0.16%	0.00%	0.00%	30.00%	-0.33%
Japan	9.17%	1.93%	0.18%	15.32%	-0.03%	15.00%	-0.03%	10.00%	-0.02%	15.32%	-0.03%
UK	5.87%	3.81%	0.22%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
France	3.89%	3.24%	0.13%	30.00%	-0.04%	0.00%	0.00%	15.00%	-0.02%	0.00%	0.00%
Germany	3.57%	2.76%	0.10%	26.38%	-0.03%	15.00%	-0.01%	15.00%	-0.01%	15.00%	-0.01%
Switzerland	3.43%	3.09%	0.11%	35.00%	-0.04%	35.00%	-0.04%	15.00%	-0.02%	35.00%	-0.04%
Canada	3.31%	2.95%	0.10%	25.00%	-0.02%	25.00%	-0.02%	15.00%	-0.01%	25.00%	-0.02%
Others	12.47%	N/A	0.46%	N/A	-0.06%	N/A	-0.03%	N/A	-0.04%	N/A	-0.03%
Total	100%		**2.40%**		-0.55%		-0.29%		-0.12%		-0.46%

Source: BlackRock.

Table 2 Returns of commonly used equity benchmarks as of 31 July

Column1	Gross Return during period			Gross Return p.a.	
	1y	3y	5y	3y	5y
MSCI World Index (MXWO Index)	12.50%	31.64%	62.08%	9.59%	10.13%
FTSE – developed (FTAD01 Index)	12.20%	32.00%	61.70%	9.70%	10.10%
Difference	0.30%	-0.36%	0.38%	-0.11%	0.03%

Source: Bloomberg.

ownership (TCO), which since it can only be estimated, not calculated exactly, is not quoted in the KIID. It is not possible to quote a binding TCO because, as Table 1 shows, dividend payments determine the tax impact and market conditions determine the bid-offer spread and the securities-lending revenue.

ETF investors often pay attention to the fund's performance and tight tracking vis-à-vis its benchmark or selected market segments. But when comparing an ETF with its benchmark, it is important to note that most indices also have their own domiciles: for example, MSCI ACWI is domiciled in Luxembourg, while the FTSE ALL-World Index, also covering large and mid-cap companies from emerging market and advanced economies, is domiciled in the United States. This means that when an ETF (or combination of ETFs) is compared against the MSCI ACWI, it will appear to earn 0.34% more than if compared against the FTSE ALL-World, with the difference being entirely attributable to the tax disadvantage of the Luxembourg domicile, as shown in Table 1.

CASE STUDY

A pension fund intends to passively follow a leading equity index covering large and mid-cap segments in advanced economies. There are two popular equity benchmarks that fit the bill: MSCI World Index and FTSE – developed (see Table 2).

In terms of returns, it is not easy to decide which index should be followed – unless we impose other constraints (total capitalisation, granularity), or unless we carry out an additional analysis (for example, in terms of volatility, Sharpe ratio). There are a few options for achieving the desired exposures. We illustrate them in Table 3 below using the following USD-denominated ETFs: IWDA – iShares Core MSCI World, VEA – Vanguard FTSE Dev Markets excluding USA, IVV – iShares Core S&P 500, and VOO – Vanguard S&P 500.

The first option is simple – to buy the only ETF that tracks and even outperforms MSCI World. As explained before, this performance is partly due to the ETF's tax advantage over its benchmark. The other two options are more efficient in terms of size, TER, bid-offer spread, securities lending, and tax. They also seem to offer better returns, but past performance does not guarantee future results. A more comprehensive approach would include tracking error analysis. In the case of the second and third options, such analysis would be more challenging, since they follow differently constructed benchmarks (the S&P 500 and FTSE Developed Market).

Optimising the total cost of ownership through all its components allows investors and money managers to reduce costs related to trading and holding ETFs and to achieve better returns for their clients.

Table 3 Determining optimal exposures (returns as of 31 July 2018)

		Net Return during period			Net Return p.a.		Domicile	Aprox tax drag compared to gross	Total Assets in bn$	TER	B-O Price Spread	B-O spread in %	Sec Lending
		1y	3y	5y	3y	5y							
1	IWDA	11.99%	29.43%	57.93%	8.97%	9.57%	Ireland	-0.29%	15.8	0.20%	0.03	0.05	no
	MXWO NET Total Return	11.88%	29.32%	57.35%	8.94%	9.48%	Lux	-0.46%				0.00	
	VEA	6.35%	18.99%	35.75%	5.96%	6.30%	USA	-0.30%	70.7	0.07%	0.01	0.02	yes
	IVV	16.21%	42.23%	84.79%	12.45%	13.06%	USA	0%	156	0.04%	0.01	0	yes
2	41.27% VEA + 58.73% IVV	12.14%	32.64%	64.55%	9.77%	10.27%		-0.12%					
	VEA	6.35%	18.99%	35.75%	5.96%	6.30%	USA	-0.30%	70.7	0.07%	0.01	0.02	yes
	VOO	16.20%	42.26%	84.86%	12.45%	13.07%	USA	0%	96.8	0.04%	0	0	yes
3	41.27% VOO + 58.73% IVV	12.13%	32.66%	64.59%	9.77%	10.28%		-0.12%					

Source: Bloomberg.