

2019 Foreign tax credit information for eligible Vanguard funds

Vanguard prepares IRS Form 1099-DIV that lists, among other things, the portion of taxes paid to foreign countries by Vanguard funds that elect to pass through those taxes to shareholders. The amount of foreign tax paid that is attributable to a shareholder may then be used to offset the shareholder's U.S. tax liability. If more detailed information on such funds is needed, use the information listed below to assist with the preparation of IRS Form 1116 (available at the IRS website, irs.gov). For those funds that offer ETF Shares, the name of the ETF and its ticker symbol are also listed.

Calculate the necessary information
(at a total dollar per share level) as follows:

Vanguard fund	Vanguard ETF® (ticker)	Foreign tax = income dividend* X	Foreign income = total foreign tax X	QDI-eligible foreign income = total foreign tax X	Foreign income % for this fund
Developed Markets Index**	FTSE Developed Markets (VEA)	0.07547	13.72609	10.87807	96.31741%
Emerging Markets Select Stock		0.12430	9.04521	6.78994	100.00000%
Emerging Markets Stock Index	FTSE Emerging Markets (VWO)	0.08023	13.37271	5.17112	99.32241%
ESG International Stock ETF		0.08162	13.25206	8.55157	100.00000%
European Stock Index	FTSE Europe (VGK)	0.08026	13.45921	11.09072	100.00000%
FTSE All-World ex-US Index	FTSE All-World ex-US (VEU)	0.08033	13.44864	9.63512	100.00000%
FTSE All-World ex-US Small-Cap Index	FTSE All-World ex-US Small-Cap (VSS)	0.07677	11.08419	6.59813	79.02175%
Global Capital Cycles		0.04167	23.48461	16.51547	93.94409%
Global ex-U.S. Real Estate Index	Global ex-U.S. Real Estate (VNQI)	0.03741	13.57386	2.11724	48.94640%
Global Wellesley®		0.04252	10.91954	7.59259	44.53491%
Global Wellington™		0.04103	12.71909	9.79838	50.13076%
Institutional Target Retirement 2015		0.01445	26.73257	9.23339	38.08848%
Institutional Target Retirement 2020		0.01926	22.33444	9.31917	42.20005%
Institutional Target Retirement 2025		0.02246	20.75028	9.35006	45.58002%
Institutional Target Retirement 2030		0.02494	19.04315	9.38336	46.34639%
Institutional Target Retirement 2035		0.02795	17.62345	9.41105	47.91045%
Institutional Target Retirement 2040		0.03104	16.43415	9.43424	49.47490%
Institutional Target Retirement 2045		0.03386	15.54384	9.45161	50.90416%
Institutional Target Retirement 2050		0.03388	15.54876	9.45151	50.95836%
Institutional Target Retirement 2055		0.03397	15.56816	9.45113	51.15085%
Institutional Target Retirement 2060		0.03406	15.59104	9.45069	51.35993%
Institutional Target Retirement 2065		0.03422	15.68970	9.44876	51.91178%

* The income dividend does not include capital gains distributions (whether short-term or long-term).

** In April 2014, Vanguard Developed Markets Index Fund merged into Vanguard Tax-Managed International Fund. The combined fund was renamed Vanguard Developed Markets Index Fund.

(continued on next page)

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Institutional Target Retirement Income		0.01117	31.41081	9.14215	34.68700%
International Dividend Appreciation Index	International Dividend Appreciation (VIGI)	0.09105	11.98312	7.79926	100.00000%
International Explorer™		0.07915	13.63369	11.74595	100.00000%
International Growth		0.09044	12.05701	10.05190	100.00000%
International High Dividend Yield Index	International High Dividend Yield (VYMI)	0.07329	14.64422	10.42038	100.00000%
International Value		0.07735	13.92840	10.27193	100.00000%
LifeStrategy® Conservative Growth		0.01432	28.80873	9.19290	40.66448%
LifeStrategy Growth		0.03031	16.85636	9.42601	49.58397%
LifeStrategy Income		0.00732	50.94761	8.76111	36.99932%
LifeStrategy Moderate Growth		0.02208	20.91060	9.34694	45.18109%
Pacific Stock Index	FTSE Pacific (VPL)	0.07133	14.25499	10.85147	94.90951%
STAR®		0.01573	13.30644	10.19880	20.60572%
Target Retirement 2015		0.01486	26.98283	9.22851	39.51543%
Target Retirement 2020		0.01992	22.38123	9.31825	43.72129%
Target Retirement 2025		0.02315	20.63733	9.35227	46.69504%
Target Retirement 2030		0.02551	18.90915	9.38597	47.04020%
Target Retirement 2035		0.02869	17.50328	9.41339	48.80971%
Target Retirement 2040		0.03187	16.40387	9.43483	50.65986%
Target Retirement 2045		0.03467	15.54845	9.45152	52.09340%
Target Retirement 2050		0.03474	15.55806	9.45133	52.23545%
Target Retirement 2055		0.03482	15.56195	9.45125	52.36128%
Target Retirement 2060		0.03485	15.57098	9.45108	52.44414%
Target Retirement 2065		0.03503	15.67493	9.44905	53.05674%
Target Retirement Income		0.01123	31.44863	9.14141	34.92727%
Total International Bond Index	Total International Bond (BNDX)	0.00191	500.15633	0.00000	95.23758%
Total International Stock Index	Total International Stock (VXUS)	0.07348	14.42492	9.47343	98.74128%

* The income dividend does not include capital gains distributions (whether short-term or long-term).

For more information, please contact Vanguard Financial Advisor Services™ at 800-997-2798 Monday through Friday from 8:30 a.m. to 7 p.m., Eastern time. Although our representatives are qualified to provide information about Vanguard investment products and services, they cannot provide tax advice. Advisors should consult an independent tax advisor regarding more complex tax situations.

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For more information about Vanguard funds or Vanguard ETFs, visit advisors.vanguard.com or call 800-997-2798 to obtain a prospectus or, if available, a summary prospectus. Investment objectives, risks, charges, expenses, and other important information are contained in the prospectus; read and consider it carefully before investing.

Vanguard ETF Shares are not redeemable with the issuing Fund other than in very large aggregations worth millions of dollars. Instead, investors must buy and sell Vanguard ETF Shares in the secondary market and hold those shares in a brokerage account. In doing so, the investor may incur brokerage commissions and may pay more than net asset value when buying and receive less than net asset value when selling.

All investing is subject to risk, including possible loss of principal.

We recommend that you consult a tax or financial advisor about your individual situation.

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U.S. Patent Nos. 6,879,964; 7,337,138; 7,720,749;
7,925,573; 8,090,646; 8,417,623; and 8,626,636.
Vanguard Marketing Corporation, Distributor.

FA116471 012020