

What is the Relationship Between Yield & Emissions?

A Look at Dividend ETFs & Net Zero Cost

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Agenda

- Cost of Emissions & Yield Through the Eyes of 4 Dividend ETFs
- Closer Look at US Dividend ETFs: VIG, DVY, SDY, DLN
- What are the high-cost constituents both in terms of Risk & Emissions
- Using our Signals to create an optimal Net Zero Income Stream



Dividend ETFs & Net Zero

Ticke	r Name	AUM ¹	Yield ²	YTD	1yr	3yr	Cost of Emissions ³
VIG	Vanguard Dividend Appreciation Fund	77.3B	1.97%	4.37%	4.62%	14.47%	31.21
SDY	SPDR S&P Dividend ETF	22.8B	2.53%	0.44%	3.39%	16.92%	83.25
DVY	iShares Select Dividend ETF	21.7B	3.63%	-2.05%	-1.71%	18.66%	321.75
DLN	WisdomTree US Large Cap Dividend Fund	3.5B	2.66%	1.97%	2.61%	15.51%	82
Notes:							
1 - Assets	under managmeent as of 4/30/2023						
2 - Yield as of 5/1/2023							
3 - Cost of Emissions is GHG metric tons per \$1mm invested							

4 - YTD,1yr,3yr are as of 4/30/2023 end date

- We selected 4 US Dividend ETFs to get a sense of the cost of emissions and its effect on yield and return
- A quick summary of the ETFs' yield/return along with the cost of emissions of each product
- DVY stands out both in terms of Yield and, particularly, on emissions



Cost of Emissions of Dividend ETFs

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Ticker	AUM^1	Emissions (GHG m/	∕tons) ² Net Zero % ³	Cost of Net Zero (\$) ⁴	Cost (bps)	Total (GHG m/tons)⁵
VIG	77,300	31.21	100%	6,730,967	0.01%	2,412,533
SDY	22,800	83.25	100%	5,295,699	0.02%	1,898,100
DVY	21,700	321.75	100%	19,479,710	0.09%	6,981,975
DLN	3,500	82	100%	800,730	0.02%	287,000

Notes:

1 - Assets under managmeent as of 4/30/2023

2 - Cost of Emissions is GHG metric tons per \$1mm invested

3 - % of the Emissions offset; 2050 Targets are for 50%

4 - We are using the Nature Based Offset OTC Price of \$2.79; Digital Carbon Trades at \$1.42 on average

5 - Equal to (AUM x Emissions x Net Zero %)

- If one were to offset all of the emissions associated with each ETF the cost would range from 1bps to about 9bps for DVY
- What are the sectors and stocks driving these emissions and is there a way to optimize?



Source of Emissions

A closer look at emissions from a sector perspective

DVY stands out with the majority of its emissions coming from Utilities. The ETF is >4x more emissions intensive than its closest peer among the Dividend ETFs.

VIG, the least emissions intensive, has the most diverse sources of emissions of the four Dividend ETFs.

VIG ETF



SDY ETF

Percent Total Emissions Per Sector



DVY ETF

Percent Total Emissions Per Sector



DLN ETF

Percent Total Emissions Per Sector





VIG Carbon Profile



 Looking under the hood of VIG, which is the least carbon intensive of the 4 Dividend ETFs, allows us to highlight the biggest drivers of emissions at the company level (those companies to the left).



VIG Carbon Signal 3 Risk



- Carbon Signal 3 mixes Carbon, ESG and residual returns to make a forecast of future returns. The ranking system on the Y-axis is the result of this process.
- Higher ranked stocks are forecast to outperform their lower ranked brethren. The red rectangle shows which stocks could be eliminated to improve risk/return going forward.



DVY Carbon Profile



- DVY has a heavy concentration of companies at the worst end of the carbon intensity spectrum, highlighted in red.
- These are the companies that drive the ETF's significantly higher than average emissions profile among the Dividend ETFs.



DVY Signal Risk



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Process to Optimize Return/Risk/Carbon

Use Confluence Signals to create a more efficient and sustainable income stream with net zero emissions:

- Start with a US Large Cap Dividend universe and apply a filter to create a dividend portfolio
- What is the resulting yield, emissions, and sector allocation?
- How does this Compare to the existing options?



Optimized Dividend Portfolio







Confluence Optimized Dividend Model

Outperforming the benchmark Russell 1000 return over the past three years, with a higher yield (1.97% vs. 1.51%)

Emissions are nearly 80% the benchmark



Dividend Model Emissions Profile





Percent Total Emissions Per Sector



Confluence Optimized Dividend Model

Emissions Profile significantly lower than equal weighted benchmark.

At 13.4 m/tons vs the benchmark at 51m/tons



Net Zero Dividend Model vs ETFs

Ticker	r Name	AUM ¹	Yield ²	YTD	1yr	3yr	Cost of Emissions ³
	Confluence Dividend Net Zero Model	-	1.97%	-1.5%	2.7%	35.4%	13.4
VIG	Vanguard Dividend Appreciation Fund	77.3B	1.97%	3.8%	2.0%	25.7%	31.21
SDY	SPDR S&P Dividend ETF	22.8B	2.53%	-0.2%	-1.3%	18.9%	83.25
DVY	iShares Select Dividend ETF	21.7B	3.63%	-2.9%	-9.9%	19.6%	321.75
DLN	WisdomTree US Large Cap Dividend Fund	3.5B	2.66%	1.2%	-2.6%	15.5%	82
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4 - YTD,1	4 - YTD,1vr,3vr are as of 4/30/2023 end date						

- The Confluence Net Zero Dividend Model Portfolio generates a comparable yielding investment vehicle with fractional emissions costs relative to its peer Dividend ETFs.
- It (Confluence Net Zero Dividend Portfolio) is an equally-weighted, broadly diversified basket of large cap stocks, with each constituent comprising less than 1% of the portfolio.

Closer Look at ETF Emissions Profiles





VIG Emissions Profile / Cost

Weighted Climate Emissions Intensity (tons of GHG/tCO2e per \$MM Invested) ±





Percent Total Emissions Per Sector



VIG ETF Emissions

Below Market Emissions profile 31m/tons vs 51 m/tons

Net Zero Cost = \$6.7Million



SDY Emissions Profile / Cost

Weighted Climate Emissions Intensity (tons of GHG/tCO2e per \$MM Invested) ±



- Weighted Climate Emissions Intensity



Percent Total Emissions Per Sector



SDY ETF Emissions

Confluence Analytics

Above Market Emissions profile 83m/tons vs 51 m/tons

Net Zero Cost = \$5.3Million



DVY Emissions Profile / Cost

Weighted Climate Emissions Intensity (tons of GHG/tCO2e per \$MM Invested) ±





Percent Total Emissions Per Sector



DVY ETF Emissions

Way above Market Emissions profile 321m/tons vs 51 m/tons

Big Exposure to Utilities at 57%

Net Zero Cost = \$19.5Million



DLN Emissions Profile / Cost







DLN ETF Emissions

Above Market Emissions profile 82m/tons vs 51 m/tons

Net Zero Cost = \$0.8Million



SPY Emissions Profile / Cost







Benchmark – SPY ETF

Market Emissions Benchmark = 51 m/tons

Energy, Utilities and Finance are the leading emitting sectors

ESG & Carbon Signal Process





Defining Signals

	Description
ESG Rank	Equal-weighted score of the sub categories of E,S,G pillars
ESG Signal 1	Score based on Top 5 ESG KPIs positively correlated with residual returns
ESG Signal 2	Rank based on 12-month return model of residual returns, ESG Ranks and Deltas
Carbon Signal 3	Rank based on 12-month return model of residual returns, ESG ranks, Carbon data and their deltas



ESG & Carbon Signal Process





Comprehensive Signals



Rated Not Rated

Signal Rating as % Mkt Cap of Universe





Our Signals Lead to Better Outcomes



Equally weighted, updated quarterly. 1 yr performance is 2022.



Equally weighted, updated quarterly. Since Inception starts 7/31/2019.

Eliminate guess work and time spent deciphering which ESG factors will influence future performance for individual stocks

Our signals determine stock performance and risk without regard for narratives

Thank you!

Confluence Analytics