

The Top 20 Largest ESG Funds – Under the Hood

Rumi Mahmood April 2021

MSCI ESG Research LLC

Contents

3 Introduction

4 Twenty Largest ESG Funds

8 Exposures and Positioning

12 Carbon Intensity

<u>14</u> Fund Selection – Piece(s) of Cake

Introduction

ESG funds have experienced rapid growth as of late. As with much in financial markets, with great growth comes great influence, and even greater scrutiny. Investors are increasingly inguisitive about the holdings of funds that claim to incorporate ESG into its analytical procedures, and rightfully so. Aside from the financial materiality aspect of ESG considerations, for many investors it's important for a fund's holdings to align with their own values and principles. ESG funds currently offer investors a spectrum of sustainability, creating challenges for those looking to align their capital with their values. Simply put, not all ESG funds are the same as their ESG policies and the resulting sustainability attributes can vary significantly. In this report we looked at the largest equity ESG funds globally, their holdings and ESG attributes, alongside things to consider when conducting ESG fund due diligence and selection.

Key Findings:

- The 20 largest ESG funds in our coverage collectively accounted for approximately 13% of total assets under management globally in ESG equity funds. There was an almost even split between active and index-based fund investment approaches, with active funds accounting for over 57% of AUM.
- Information technology was the largest sector allocation for most funds, with almost no allocation in energy.
 Google was the most commonly held stock across most funds; Alphabet Inc. was included in 12 funds, with an average weight of 1.9%.
- Despite the overall low allocation to energy, there were
 11 funds that both held energy stocks and exhibited
 a lower carbon intensity than those with no energy
 exposure, highlighting the fact that single stock
 allocations were not always the main driver of a fund's
 overall ESG attributes.

¹ Within MSCI's fund universe of coverage as of Dec 31, 2020.

Twenty Largest ESG Funds

The 20 largest ESG funds in our coverage held more than USD 150 billion in assets combined, as of December 31, 2020. Collectively, these 20 funds represent approximately 13% of the total assets under management (AUM) globally in ESG equity funds.

Despite their nominal similarities these ESG funds vary widely in their manager's investment approach and holding composition. There is a nearly even split between indexbased and active funds, including both mutual funds and ETFs. Active funds accounted for a slight majority of held assets, holding over 50% of total AUM; while the remaining AUM held by index-based funds were divided evenly between mutual funds and ETFs (Exhibit 2). A number of thematic funds were also featured in this list of active and index-based strategies, namely water and clean energy products, collectively accounting for approximately USD 20 billion.²

The funds varied widely in tenure and domicile, the oldest fund has been managed for more than 30 years old, and the youngest for just over five. But two-thirds of total AUM (over USD 100 billion) was held in funds less than twenty years old (Exhibit 3), and half of them were domiciled in Europe where ESG adoption has been long established. However, the geographic focus of most funds was U.S. equities.

² All fund characterizations based on data from Broadridge and MSCI ESG Research, as of Dec. 31, 2020

Exhibit 1: Top 20 Largest ESG Equity Funds by AUM

#	Name	Assets USD Billion	Inception	Domicile	Geographic Focus	Fund Type	MSCI ESG Rating	Peer Percentile Rank ³	
1	Parnassus Core Equity Fund	22.94	1992	U.S.	U.S.	Active Fund	А	83rd	
2	iShares ESG Aware MSCI USA ETF	13.03	2016	U.S.	U.S.	Index-based ETF	А	82nd	
3	Vanguard FTSE Social Index Fund	10.87	2000	U.S.	U.S.	Index-based Fund	BBB	41st	
4	Stewart Investors Asia Pacific Leaders Sustainability Fund	9.87	2003	UK	Pacific ex Japan	Active Fund	А	61st	
5	Vontobel Fund - mtx Sustainable Emerging Markets Leaders	9.58	2011	Luxembourg	Emerging Markets	Active Fund	А	81st	
6	Northern Trust World Custom ESG Equity Index	8.69	2013	Ireland	Global	Index-based Fund	А	35th	
7	Pictet - Global Environmental Opportunities	8.31	2010	Luxembourg	Global	Active Fund	AA	89th	
8	Pictet - Water	8.02	2000	Luxembourg	Global	Active Fund	AA	-	
9	KLP AksjeGlobal Indeks I	7.69	2004	Norway	Global	Index-based Fund	А	31st	
10	Nordea 1 - Global Climate and Environment	7.37	2008	Luxembourg	Global	Active Fund	AA	89th	
11	Parnassus Mid-Cap Fund	6.90	2005	U.S.	U.S.	Active Fund	А	98th	
12	iShares ESG Aware MSCI EM ETF	6.83	2016	U.S.	Emerging Markets	Index-based ETF	А	98th	
13	iShares Global Clean Energy UCITS ETF	6.52	2007	Ireland	Global	Index-based ETF	А	45th	
14	iShares Global Clean Energy ETF	6.51	2008	U.S.	Global	Index-based ETF	А	45th	
15	Nordea 1 - Emerging Stars Equity Fund	6.41	2011	Luxembourg	Emerging Markets	Active Fund	А	87th	
16	TIAA-CREF Social Choice Equity Fund	6.32	1999	U.S.	U.S.	Index-based Fund	А	86th	
17	Handelsbanken Hallbar Energi	5.85	2014	Sweden	Global	Active Fund	А	77th	
18	Putnam Sustainable Leaders Fund	5.81	1990	U.S.	U.S.	Active Fund	А	92nd	
19	iShares MSCI USA SRI UCITS ETF	5.63	2016	Ireland	U.S.	Index-based ETF	AA	99th	
20	Calvert Equity Fund	5.37	1987	U.S.	U.S.	Active Fund	А	95th	

Source: MSCI ESG Research LLC and Broadridge as of Dec. 31, 2020

³ Percentile rank of the fund within its peer group and within the global universe of funds in the MSCI coverage universe.

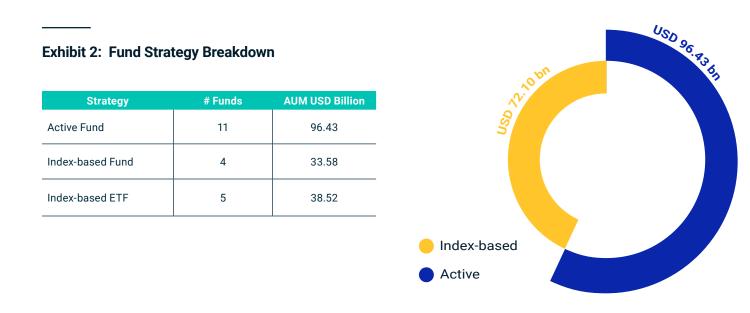
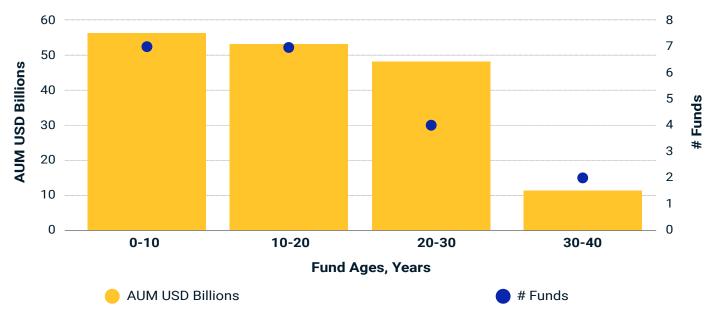


Exhibit 3: ESG Fund Age and Assets Under Management



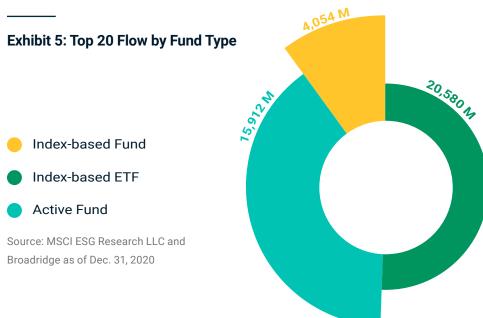
Source: Broadridge and MSCI ESG Research as of Dec. 31, 2020

The order of size and order of flows in the top 20 are different. Index-based strategies saw the lion's share of inflows, exceeding over USD 20 bn (Exhibit 5). The iShares ESG Aware MSCI USA ETF alone witnessed in excess of USD 7 billion in flows. Thematic funds – clean energy, water - were particularly popular in 2020 collectively witnessing over USD 15 bn in flows, two listings of the iShares Global Clean Energy ETF saw collective flows in excess of USD 7 billion.

Exhibit 4: Top 20 Ranked by Flow in 2020

Fund	Flows USD Millions (12 mo.)	Fund ESG Rating	Fund Type
iShares ESG Aware MSCI USA ETF	7,126.0 M	А	Index-based ETF
Pictet Environmental Opp	4,227.1 M	AA	Active Fund
iShares Global Clean Energy (US Listing)	3,986.5 M	А	Index-based ETF
iShares Global Clean Energy UCITS ETF	3,522.2 M	А	Index-based ETF
Handelsbanken Hallbar Energi	3,454.9 M	А	Active Fund
iShares ESG Aware MSCI EM ETF	3,345.5 M	А	Index-based ETF
Nordea 1 Glob Climate	2,957.3 M	AA	Active Fund
iShares MSCI USA SRI UCITS ETF	2,599.7 M	AA	Index-based ETF
Vontobel Fund mtx Sust EM Leaders	2,345.6 M	А	Active Fund
Northern Trust World Cst ESG	1,927.7 M	А	Index-based Fund
Nordea 1 - Emerging Stars Equit	1,599.3 M	А	Active Fund
Vanguard FTSE Social Index Fund	1,347.2 M	BBB	Index-based Fund
Parnassus Mid Cap Fund	963.0 M	А	Active Fund
Parnassus Core Equity Fund	686.3 M	A	Active Fund
Calvert Equity Fund	574.4 M	А	Active Fund
KLP AksjeUSA	471.9 M	А	Index-based Fund
Pictet-Water	444.1 M	AA	Active Fund
TIAA-CREF Social Choice Equity	307.3 M	A	Index-based Fund
Putnam Sustainable Leaders Fund	-385.6 M	A	Active Fund
Stewart Investors Asia Pacific	-953.9 M	А	Active Fund

Source: MSCI ESG Research LLC and Broadridge as of Dec. 31, 2020



Exposures and Positioning ____

Exhibit 6: Sector Exposures - Tech vs. Energy

·	Fund Sector Holdings (%)													
Name	Communication Services	Consumer Discretionary	Consumer Staples	Energy	Financials	Health Care	Industrials	Information Technology	Materials	Real Estate	Utilities			
Parnassus Core Equity	11.32	7.88	8.52	0.00	6.17	10.61	18.17	32.48	3.38	1.47	0.00			
iShares ESG Aware MSCI USA ETF	10.10	11.99	6.05	2.15	10.06	13.43	9.13	28.79	2.36	2.79	2.54			
Vanguard FTSE Social Index	12.56	13.82	5.66	0.05	10.56	14.45	5.31	32.90	2.48	2.79	0.77			
Stewart Investors APAC Leaders Sust	2.64	4.59	20.69	0.00	13.23	18.93	6.66	29.15	4.11	0.00	0.00			
Vontobel - mtx Sustainable EM Leaders	13.18	17.05	4.19	4.59	21.57	1.88	2.37	19.84	5.97	4.23	5.13			
Northern Trust World Custom ESG Equity	8.77	10.52	5.49	0.99	10.93	12.79	5.07	22.28	2.52	2.66	1.24			
Pictet - Global Environmental Opportunities	0.00	0.00	0.00	0.00	0.00	8.97	25.17	37.53	12.86	4.05	9.27			
Pictet - Water	0.00	4.38	0.00	0.00	0.00	12.87	43.75	3.47	4.41	0.00	30.25			
KLP AksjeGlobal Indeks I	10.74	12.25	6.23	2.02	9.99	13.52	8.21	28.88	2.53	2.52	2.78			
Nordea 1 - Global Climate and Environment	0.00	0.00	4.00	0.00	0.00	4.42	36.94	32.31	15.16	1.52	5.64			
Parnassus Mid-Cap	3.29	9.35	4.03	0.00	5.66	14.77	21.53	27.22	2.55	7.03	4.56			
iShares ESG Aware MSCI EM ETF	10.76	17.83	6.05	5.18	21.97	4.06	3.99	21.00	5.72	1.32	1.59			
iShares Global Clean Energy UCITS ETF	0.00	0.00	0.00	2.01	0.00	0.00	25.94	22.86	0.00	0.00	49.17			
iShares Global Clean Energy ETF	0.00	0.00	0.00	2.01	0.00	0.00	25.94	22.86	0.00	0.00	49.17			
Nordea 1 - Emerging Stars Equity	11.59	20.46	8.99	0.00	25.15	2.48	0.89	27.46	1.45	0.45	1.06			
TIAA-CREF Social Choice Equity	9.19	10.37	5.89	2.20	12.17	14.52	9.44	25.40	2.95	3.14	2.67			
Handelsbanken Hallbar Energi	0.00	2.19	11.55	0.44	2.40	0.00	28.07	19.30	9.52	0.29	24.49			
Putnam Sustainable Leaders	1.12	16.34	5.94	0.00	9.97	13.06	8.98	30.55	6.90	2.19	4.94			
iShares MSCI USA SRI UCITS ETF	5.95	19.08	10.56	0.72	12.62	16.63	11.57	14.23	3.41	4.27	0.82			
Calvert Equity	5.37	12.84	4.92	0.00	8.74	13.79	9.92	29.34	7.02	4.40	0.00			

Source: MSCI ESG Research LLC and Broadridge as of Dec. 31, 2020

Sector exposures across the funds revealed that

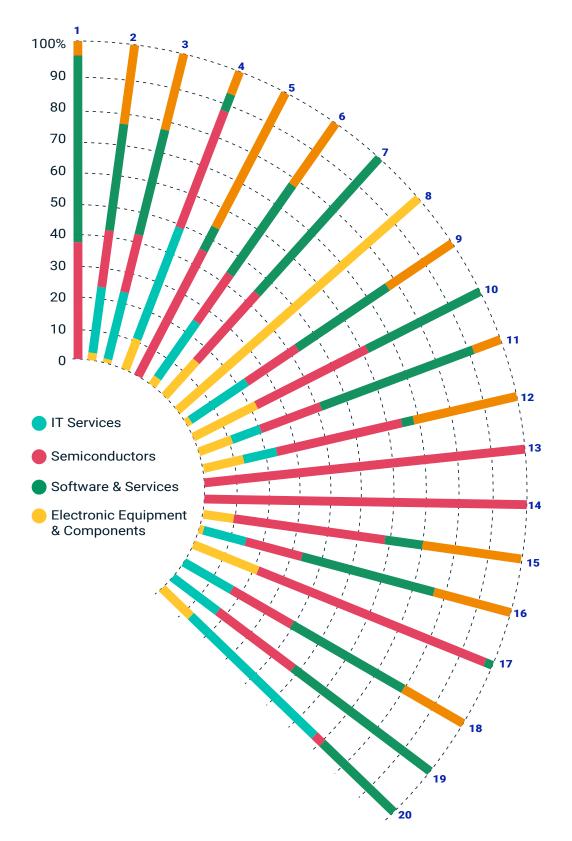
information technology was the largest allocation in most funds, and an almost zero allocation in energy (Exhibit 6). This was one of the key drivers behind the shorter-term recent outperformance of ESG funds relative to their non-ESG counterparts, as tech stocks rallied in 2020 whilst energy declined.

Google was the most commonly held stock across most funds; Alphabet Inc. was in 12 funds, with an average weight of 1.9% (Exhibit 7), followed by Ecolab, Thermo Fisher Scientific and Microsoft. The companies with the highest average weight across the funds were Apple (5.6%) and Microsoft (5.0%); the market return of these firms was 30% and 41% respectively in 2020. It should be noted however, that turnover takes place within funds and the ranks and weighting held by these companies may not have been constant for the entirety of the year, and that this analysis represents an end of year snapshot.

Exhibit 7: Top 10 Common Holdings by GICS Sector⁴

										.0	
		ESG Rating	ş	t %	/gt %	gt %		ESG Rating # Funds	t %	/gt %	Min Wgt %
		С С	# Funds	Av Wgt	Max Wgt	Min Wgt		ESG Rati # Funds	Av Wgt %	Max Wgt	≥ L
	Name	ß	#	¥	Ĕ	Σ	Name	ES H	A	Ĕ	Σ
	MICROSOFT CORPORATION APPLIED MATERIALS, INC. CADENCE DESIGN INC. ADOBE INC. TEXAS INSTRUMENTS AUTODESK, INC. TRIMBLE INC. SYNOPSYS, INC. APPLE INC. NVIDIA CORPORATION	AAA AA AA AAA AA BB BBB AAA	9 8 8 8 8 8 8 7 7 7	5.09 1.33 1.28 1.25 0.94 1.14 0.90 1.73 5.68 1.67	7.30 4.06 3.71 2.41 2.10 3.23 2.99 3.62 7.56 4.15	3.47 0.17 0.08 0.52 0.33 0.15 0.04 0.09 1.49 0.70	CHENIERE ENERGY, INC. CHEVRON CORPORATION CONOCOPHILLIPS Schlumberger N.V. VALERO ENERGY CORP BAKER HUGHES COMPANY EXXON MOBIL CORPORATION	A 5 AA 4 BBB 4 A 4 A 4 BBB 4 AA 4 BBB 3 BBB 3 BBB 3	0.10 0.07 0.08 0.49 0.19 0.12 0.10 0.07 0.47 0.22	0.26 0.12 0.63 0.31 0.17 0.18 0.13 0.54 0.46	0.01 0.03 0.03 0.05 0.07 0.05 0.03 0.38 0.07
COMMUNICATION	ALPHABET INC. DISCOVERY, INC. ELECTRONIC ARTS INC. CABLE ONE, INC. VERIZON COMMS INC. LIBERTY GLOBAL PLC LIBERTY BROADBAND CORP. ZILLOW GROUP, INC. FOX CORPORATION COMCAST CORP	BB BBB A BBB BB BB BB BB	12 7 7 6 6 6 6 5	1.93 0.07 0.31 0.29 1.30 0.05 0.10 0.04 0.02 1.44	0.15 0.77 1.62 3.79 0.14 0.44 0.07 0.03	1.12 0.01 0.09 0.02 0.53 0.02 0.01 0.02 0.01 0.52	CME GROUP INC. E MARSH & MCLENNAN INC. MOODY'S CORPORATION BLACKROCK, INC. S&P GLOBAL INC. FACTSET INC.	BBB 7 AA 7 AA 7 AA 7 AA 6 AA 6 AA 6 AA 6 A 6 A 6	0.73 0.79 0.57 0.31 0.93 0.38 0.08 0.17 0.40 0.22	2.77 3.40 1.84 0.74 2.73 0.73 0.73 0.19 0.52 0.96 0.54	0.18 0.14 0.13 0.11 0.24 0.17 0.03 0.06 0.14 0.08
	V.F. CORPORATION NIKE, INC. THE HOME DEPOT, INC. BORGWARNER INC. Hasbro, Inc. LOWE'S COMPANIES, INC. VAIL RESORTS, INC. AMAZON.COM, INC. CHIPOTLE MEXICAN GRILL TRACTOR SUPPLY COMPANY	AA AA AA AA AA BBB BBB A	8 7 7 7 7 7 6 6	0.75 1.02 1.52 0.05 0.30 0.77 0.17 4.43 0.38 0.09	2.67 4.20 0.14 1.69 1.83 0.77 5.35	0.08	CERNER CORPORATION BECTON, DICKINSON AND CO GILEAD SCIENCES, INC. WATERS CORPORATION AMGEN INC. HOLOGIC, INC.	BB 10 BB 9 AA 9 AA 8 A 7 AA 7 AA 7 AA 7 AA 7 AA 7	1.91 2.33 0.89 0.85 0.75 0.46 0.38 0.83 0.53 0.47	4.42 5.70 2.47 3.23 3.11 1.10 2.13 2.04 3.06 1.00	0.40 0.28 0.08 0.16 0.16 0.03 0.29 0.04 0.13
MATERIALS	ECOLAB INC. LINDE PUBLIC LIMITED COMPANY INTERNATIONAL FLAVORS & FRAGRANCES INC BALL CORPORATION NEWMONT CORPORATION PPG INDUSTRIES, INC. AIR PRODUCTS AND CHEMICALS, INC. THE SHERWIN-WILLIAMS COMPANY THE MOSAIC COMPANY DUPONT DE NEMOURS, INC.	AAA A A A A A BBB BBB A A A	10 9 6 5 5 5 5 5 5	1.31 1.45 0.22 0.40 0.29 0.59 0.33 0.32 0.07 0.22	3.38 1.39 1.35 0.73 2.55 1.01 0.91 0.12	0.12 0.30 0.02 0.07 0.10 0.05 0.11 0.13 0.03 0.11	EQUINIX, INC. DIGITAL REALTY TRUST, INC. BOSTON PROPERTIES, INC. PROLOGIS, INC. CBRE GROUP, INC. HEALTHPEAK PROPERTIES, INC. SBA COMMUNICATION CORP	AA 8 AA 7 BB 6 AA 6 AA 6 AA 6 BB 5 BB 5 BB 5	0.93 0.89 0.64 0.27 0.43 0.12 0.11 0.28 0.09 0.05	4.05 1.97 1.30 1.11 0.32 0.24 1.05 0.13	0.05
UTILITIES	AMERICAN WATER WORKS COMPANY EVERSOURCE ENERGY CONSOLIDATED EDISON, INC. CENTERPOINT ENERGY, INC. SEMPRA ENERGY ORSTED A/S PUBLIC SERVICE ENTERPRISE GROUP EDISON INTERNATIONAL ESSENTIAL UITILITIES INC NEXTERA ENERGY, INC.	BBB AA BBB A AAA AA BBB BBB AAA	6 5 5 5 4	1.31 0.40 0.19 0.05 0.20 2.20 0.17 0.10 0.91 0.83	1.23 0.37 0.09 0.34 3.88 0.22 0.16 3.43	0.06 0.05 0.03 0.08 0.08 0.06 0.05 0.02 0.33	Source: Refinitiv/Lipper and MSCI ES of Dec. 31, 2020 4 GICS, the Global Industry Classification MSCI and Standard & Poor's.				d by





- 1 Parnassus Core Equity Fund
- 2 iShares ESG Aware MSCI USA ETF
- 3 Vanguard FTSE Social Index Fund
- 4 Stewart Investors Asia Pacific
- 5 Vontobel
- 6 Northern Trust World Cst ESG
- 7 Pictet Environmental Opp
- 8 Pictet-Water
- 9 KLP AksjeUSA
- 10 Nordea 1 Glob Climate
- 11 Parnassus Mid Cap Fund
- 12 iShares ESG Aware MSCI EM ETF
- 13 iShares Global Clean Energy
- 14 iShares Global Clean Energy
- **15** Nordea 1 Emerging Stars Equit
- 16 TIAA-CREF Social Choice Equity
- 17 Handelsbanken Hallbar Energi
- **18** Putnam Sustainable Leaders Fund
- 19 iShares MSCI USA SRI UCITS ETF
- 20 Calvert Equity Fund

The most commonly held information technology stocks were Microsoft (9 funds), followed by Applied Materials and Cadence Design Systems (8 funds each). Within information technology, the industry groups with the largest exposure across most funds were software and services, and semiconductors (Exhibit 8). The largest fund investors into these industry groups were active funds; Pictet Environmental Opportunities (21.3%) and Parnassus Core Equity (19.1%), whereas index-based approaches allocated approximately half that of their active peers, averaging a 9% exposure. The concentration of fund investment into these industry groups has had significant impact on the recent outperformance of ESG. To put the performance of these industries into context, in 2020, the MSCI World Software & Services Index returned 38.7%, while the MSCI World Semiconductors and Semiconductor Equipment Index returned 46.7%, by far among the best performing subsectors within the information technology sector.

Despite the general absence of energy exposure in the above funds, some did have minor allocations to energy stocks. Out of those that did, for example, the iShares ESG Aware MSCI USA ETF had a 2.15% allocation to energy, which included 11 oil and gas names such as Exxon and Chevron. The iShares MSCI USA SRI ETF, comparatively, held considerably less: at 0.72% of only two names, Phillips 66 and Oneok. Why? Because index methodology matters, and different indexes provide investors with diverse investment choices. The iShares ESG Aware MSCI USA ETF tracks an index⁵ that employs an optimization process to maximize exposure to ESG factors while maintaining a target tracking error to the parent MSCI USA index within a specified range, along with being sector-diversified and targeting companies with high ESG ratings in each sector. Compare this to the iShares MSCI USA SRI ETF that tracks an index that is considerably more stringent in its investment criteria, and aims to provide exposure to companies with the highest ESG ratings while excluding companies with certain negative social or environmental impacts. In this case the exclusions are more far reaching, removing companies involved in nuclear power, tobacco, alcohol, gambling, weapons and civilian firearms, thermal coal and more⁶.

⁵ MSCI USA ESG Focus Index

⁶ MSCI SRI Indexes Methodology

Carbon Intensity

The majority of funds in our analysis that did not hold any energy stocks were active funds and most that did were index-funds. But how does that reconcile with real world carbon emissions? The energy sector tends to be first in line when it comes to ESG scrutiny, making it easy to presume that funds with energy exposure would lead to more exposure to pollutive companies, or higher fund emissions and carbon intensity^{7,8}. However, holdings alone do not provide the full picture, in fact there are funds within this group that do not have any energy stocks but exhibit a substantially higher carbon intensity than those that do (Exhibit 9).

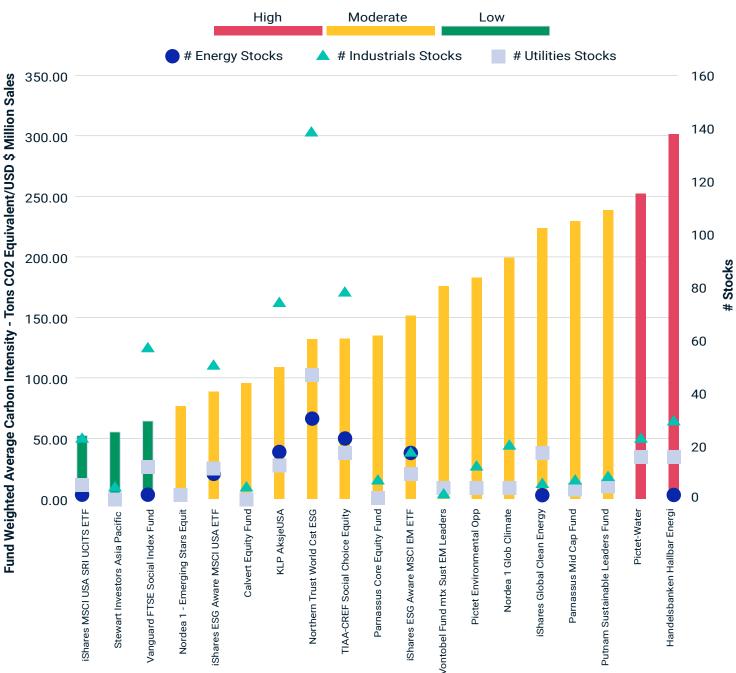
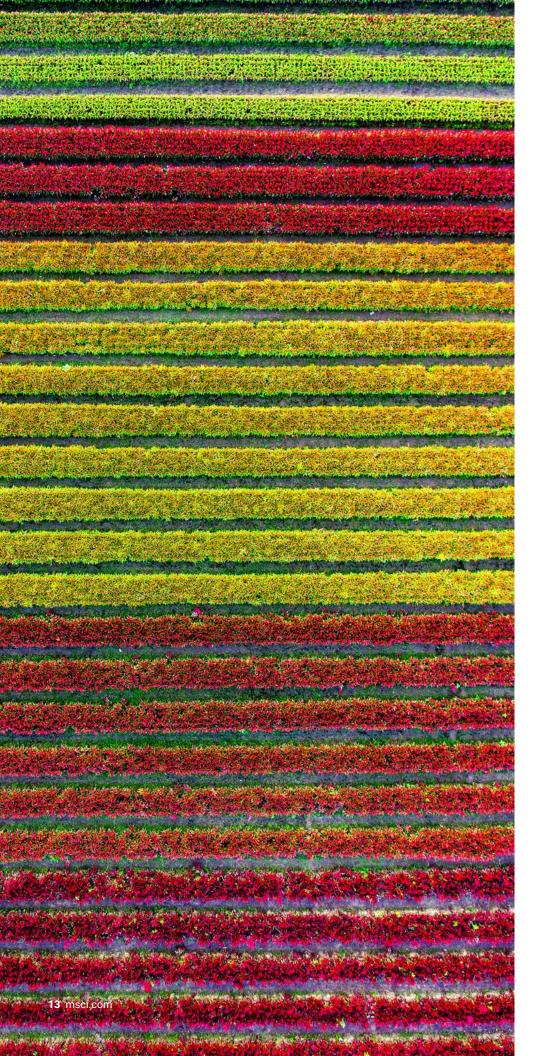


Exhibit 9: Fund Weighted Average Carbon Intensity vs. Holdings

Source: Refinitiv/Lipper and MSCI ESG Research as of Dec. 31, 2020 **12** msci.com

⁷ Third of low-carbon funds invest in oil and gas stocks | Financial Times (ft.com)
8 ESG funds defy havoc to ratchet huge inflows | Financial Times (ft.com)



Pictet Water for example, is a thematic fund with no energy exposure, yet it exhibits a considerably higher carbon intensity than the rest in the list, predominantly driven through its industrials and utilities holdings. Investors often laude funds that exclude energy, but this is not the only pollutive industry, and different funds have different goals. Pictet Water may have a high carbon intensity, but it aims to capture investment opportunities across all areas of the global water industry, with a particular focus on water supply, clean water technology and environmental services. This niche theme could therefore be considered to be more environmentally beneficial in the long-run, providing more exposure to the development of sustainable solutions, as opposed to investing in sectors with inherently low carbon intensity, such as financials or communication services, which lack immediate business involvement in the engineering of solutions. This all goes to show that understanding the nuances of fund mandates matter.

Fund Selection – Piece(s) of Cake

The ESG fund universe is anything but uniform. The largest funds are very much a reflection of the spectrum of investors' choice and preferences, active and index-based, integration, values & screens based, and thematics. They highlight the fact that there is no one way to invest sustainably, demonstrate clearly that different investors may be at different stages in their ESG journey, and that their preferences can be quite diverse. These funds differ from one another, often quite substantially. Investors moving into ESG may wish to consider these differences very carefully to ensure that their investments are actually aligned with their own investment principles. Alongside fundamental analysis, risk/reward considerations, sector, and geographic exposures, attaining a good understanding of fund ESG policies can help investors make more informed fund decisions in this regard.

INNUARITAN AND STRATTAN

Exhibit 10: Not all ESG Funds Are the	Calvert Equity	Putnam Sustainable Leaders -	Parnassus Core Equity	Vanguard FTSE Social Index ijod	Parnassus Mid Cap	TIAA-CREF Social Choice Equity	iShares Global Clean Energy	iShares ESG Aware MSCI EM	iShares ESG Aware MSCI USA	Stewart Investors APAC Leaders Sust	KLP AksjeGlobal Indeks	Pictet-Water	Nordea 1 - Global Climate and Environment	Pictet - Global Environmental Opp	Nordea 1 - Emerging Stars Equity	Vontobel mtx Sust EM Leaders	Handelsbanken Hallbar Energi	Northern Trust World Custom ESG	iShares MSCI USA SRI
Best in class Optimized Thematic Natural resources		√	√		√	√	√ √	√	√	√		√ √	√	V	√		√		✓
Environment Human capital Stakeholder opposition							 ✓ 						✓		 ✓ 		✓		
Corporate behaviour Business involvement screening Adult entertainment	✓			√ √				√	√	√							\checkmark	√	√ √
Alcohol Biocides	\checkmark		\checkmark	√	\checkmark						√	\checkmark					\checkmark	√	√
Civilian firearms Conventional weapons Gambling Gmo	$ \sqrt{1} $		√ √	√ √	√ √			√	√	√	√ √	√ √	V		√	√	√ √	√	
Nuclear power Nuclear weapons Tobacco	√ √		√ √	√ √ √	√ √			√ √	√ √	√	√ √	√ √	√ √ √		√ √ √	√ √	√	√ √	▼ √ √
Norms Thermal coal			\checkmark		\checkmark				\checkmark	\checkmark	√	√	\checkmark		√	\checkmark	\checkmark	√	\checkmark

Source: MSCI ESG Research LLC as of Dec. 31, 2020

Introspection can be a good place to start when it comes to fund selection. What are my values and principles, in order of preference? What matters the most? What do I care about most, and what would be acceptable as collateral benefits? Optimizing multiple parameters can be challenging. Also, it may be important to look beyond just holdings, as single names alone have historically not dictated overall ESG attributes. Effectively, ESG funds are like a cake. We can't have our cake and eat it, but we can eat some parts of the cake. It's a matter of systematically prioritizing which parts matter the most.

About MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 50 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process.

About MSCI ESG Research Products and Services

MSCI ESG Research products and services are provided by MSCI ESG Research LLC, and are designed to provide in-depth research, ratings and analysis of environmental, social and governance-related business practices to companies worldwide. ESG ratings, data and analysis from MSCI ESG Research LLC. are also used in the construction of the MSCI ESG Indexes. MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc.

To learn more, please visit <u>www.msci.com</u>.



Notice and disclaimer

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the "Information") is the property of MSCI Inc. or its subsidiaries (collectively, "MSCI"), or MSCI's licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (collectively, with MSCI, the "Information Providers") and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or redisseminated in whole or in part without prior written permission from MSCI. All rights in the Information are reserved by MSCI and/or its Information Providers.

The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other MSCI data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINCEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION.

Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall any Information Provider have any liability regarding any of the Information for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited, including without limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or willful default of its ervants, agents or sub-contractors.

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

The Information should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. All Information is impersonal and not tailored to the needs of any person, entity or group of persons.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy. It is not possible to invest directly in an index. Exposure to an asset class or trading strategy or other category represented by an index is only available through third party investable instruments (if any) based on that index. MSCI does not issue, sponsor, endorse, market, offer, review or otherwise express any opinion regarding any fund, ETF, derivative or other security, investment, financial product or trading strategy that is based on, linked to or seeks to provide an investment return related to the performance of any MSCI index (collectively, "Index Linked Investments"). MSCI makes no assurance that any Index Linked Investment swill accurately track index performance or provide positive investment returns. MSCI Inc. is not an investment adviser or fiduciary and MSCI makes no representation regarding the advisability of investing in any Index Linked Investments.

Index returns do not represent the results of actual trading of investible assets/securities. MSCI maintains and calculates indexes, but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the index or Index Linked Investments. The imposition of these fees and charges would cause the performance of an Index Linked Investment to be different than the MSCI index performance.

The Information may contain back tested data. Back-tested performance is not actual performance, but is hypothetical. There are frequently material differences between back tested performance results and actual results subsequently achieved by any investment strategy.

Constituents of MSCI equity indexes are listed companies, which are included in or excluded from the indexes according to the application of the relevant index methodologies. Accordingly, constituents in MSCI equity indexes may include MSCI Inc., clients of MSCI or suppliers to MSCI. Inclusion of a security within an MSCI index is not a recommendation by MSCI to buy, sell, or hold such security, nor is it considered to be investment advice.

Data and information produced by various affiliates of MSCI Inc., including MSCI ESG Research LLC and Barra LLC, may be used in calculating certain MSCI indexes. More information can be found in the relevant index methodologies on www.msci.com.

MSCI receives compensation in connection with licensing its indexes to third parties. MSCI Inc.'s revenue includes fees based on assets in Index Linked Investments. Information can be found in MSCI Inc.'s company filings on the Investor Relations section of www.msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Except with respect to any applicable products or services from MSCI ESG Research, neither MSCI nor any of its products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and MSCI's products or services are not intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Issuers mentioned or included in any MSCI ESG Research materials may include MSCI Inc., clients of MSCI or suppliers to MSCI, and may also purchase research or other products or services from MSCI ESG Research MSCI ESG Research materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body.

Any use of or access to products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, IPD and other MSCI brands and product names are the trademarks, service marks, or registered trademarks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and Standard & Poor's. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and Standard & Poor's.

MIFID2/MIFIR notice: MSCI ESG Research LLC does not distribute or act as an intermediary for financial instruments or structured deposits, nor does it deal on its own account, provide execution services for others or manage client accounts. No MSCI ESG Research product or service supports, promotes or is intended to support or promote any such activity. MSCI ESG Research is an independent provider of ESG data, reports and ratings based on published methodologies and available to clients on a subscription basis. We do not provide custom or one-off ratings or recommendations of securities or other financial instruments upon request.

Privacy notice: For information about how MSCI collects and uses personal data, please refer to our Privacy Notice at https://www.msci.com/privacy-pledge

©2021 MSCI Inc. All rights reserved | CBR0421