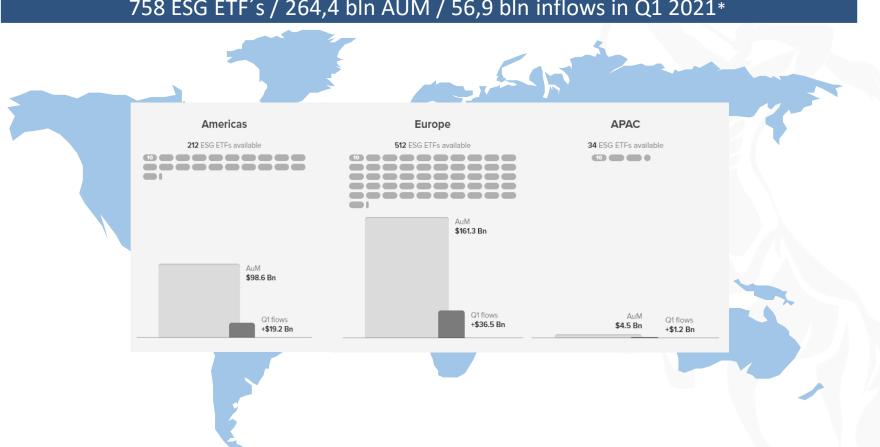


ESG, Factor Exposures and ETF's

A closer look at the intersection of ESG/Low Carbon- and Factor investing

Brighttalk ETF Summit June, 1st 2021

Introduction ESG ETF's – the global state of play

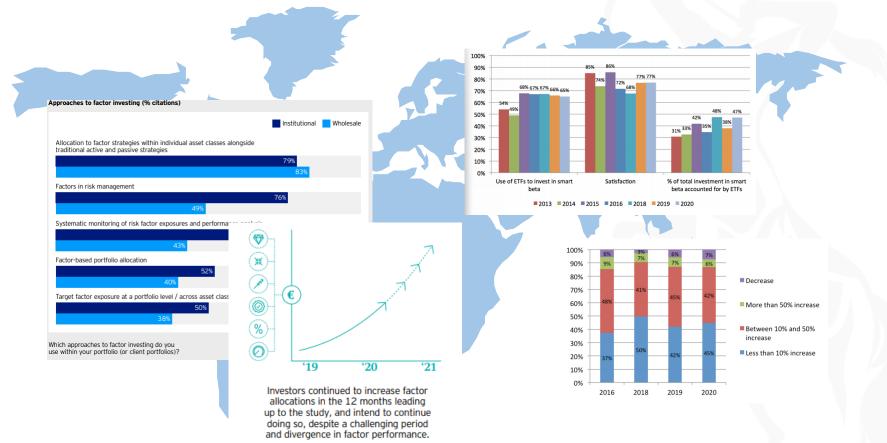


758 ESG ETF's / 264,4 bln AUM / 56,9 bln inflows in Q1 2021*

* Source: trackinsight.com

Introduction Factor investing and ETF's – the global state of play



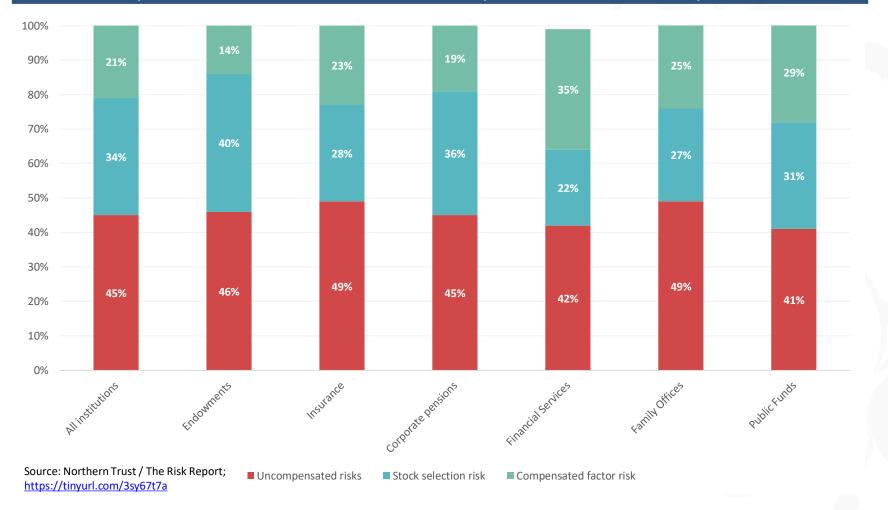


Sources:

- Invesco: Global Factor Investing Study, 2020
- EDHEC: ETF, Smart Beta and Factor Investing Survey, 2020

Introduction ESG and factor investing as satellites: danger of "optimized island solutions"

Nearly 50% of active risks in institutional portfolios are "uncompensated"



Brighttalk ETF Summit ESG, Factor Exposures and ETF's

Major themes			
Different approaches to ESG- and Low Carbon investments	and their drivers of risk and return with a focus on well-known factor exposures		
Data challenges in ESG	and the risks of quantitative ESG strategies of index providers delivered via ETF's		
Passive strategies with a low tracking error to traditional benchmarks	and the question, if they can add economic value beyond "doing good"		
Factor Investing in combination with carbon footprint reduction	and the question if this combination can deliver a better risk-/return trade-off than passive approaches via ETF or active Long Only-strategies		



About us

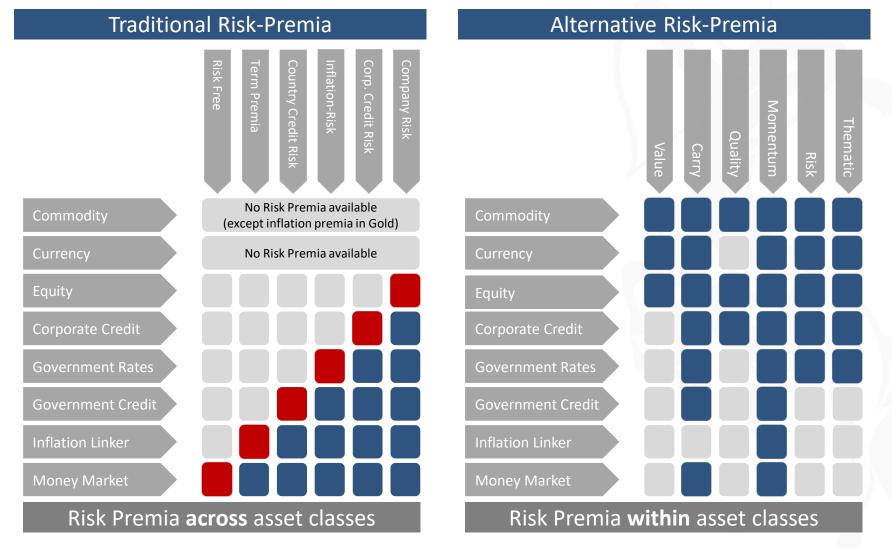
Who we are Alpha Centauri works for and with leading players in financial services





Our approach

Our approach Our whole work is deeply-rooted in a risk-factor framework



Our approach

First steps in ESG: Whitepaper Alpha Centauri/ISS ESG/Prof. Bassen, Uni HH



"Comprehensive carbon data can help generate financial outperformance and investing in line with a 2-degree scenario is a clear opportunity for value creation - helping to differentiate active managers from passive competitors.

These are the findings of the recently published paper by South Pole Group, global sustainability solutions provider, and **Alpha Centauri**, the Hamburg-based boutique asset manager, who today announce their partnership." (SPG press release / RESPONSIBLE INVESTOR)

More information on our website



Climate change has finally become a mainstream investment topic within the financial industry. The wider availability of better-quality data together with the political will to achieve international climate goals have shifted the focus from investment risks to -opportunities. It is possible to build an equity market neutral position with a negative portfolio CO2 footprint to hedge (or lower) current footprints in financial and non-financial assets.



The latest White Paper by leading experts connects the global context on investment and climate change towards a 2-degree world with the status quo of academic research, and presents latest findings on the investment and climate performance of climate smart investments in European Equities.



Managing Director at ISS

"We see great interest from investors who both wish to

tackle climate change, and to rely on well-proven

methods for creating added value in purely financial

White paper



The search for climate-smart investments - the case of European equities Update 2019 (with ISS ESG)



Ulf Füllgraf Managing Director at Alpha Centauri "We have extensive experience in factor based investments strategies: Based on ISS-ETHIX's database.

we developed a suite of climate smart portfolios spanning equity long only, market neutral and long short solutions." Comment in Absolut Latternative:



Different approaches to ESGand Low Carbon investments

... and their drivers of risk and return with a focus on wellknown factor exposures

Different Approaches

Institutional investors pursue six major ESG - strategies according to CERULLI*

Approaches differ – from outputs to outcomes			
Method	Value Proposition	Available ETF´s**	
Negative Screening	Value Alignment	76	
ESG Integration	Value Enhancement	272	
Positive Screening	Value Enhancement	156	
Thematic Investment	Value Enhancement + ESG Impact		
Impact Investment	Value Enhancement + ESG Impact	134	
Active Ownership	Value Alignment + Value Enhancement + ESG Impact	none	

*CERULLI Associates: "Environmental, Social, and Governance (ESG) Investing in the United States"<u>https://info.cerulli.com/US-ESG-2019.html</u>

** Trackinsight.com; CONSER

Different Approaches

Two sides of the ESG-medal: principles and economic materiality

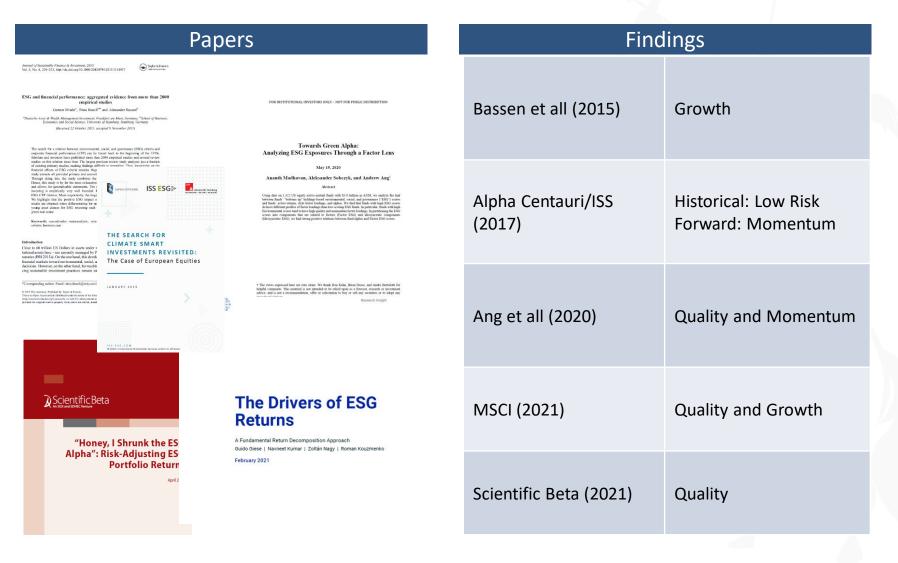
Principles, values & beliefs	Materiality
Exclusions/negative screening	"Cash Flow"- channel
Nuclear Energy	• Sales
Controversial weapons	Cash Flows
Human and working rights	Earnings
Alcohol and tobacco	Dividends/Buybacks
Biogenetics	"Discount factor" (cost of capital)-channel
Gambling	Interest rate
Fossil Energy (Coal/Oil/Gas etc.)	• Risk premia / Beta

Different Approaches Factors can be a reasonable basis for materiality

Economic materiality of factors is well documented		
Factor	Description	
Value	In the long run, stocks that appear cheap according to accepted metrics tend to outperform. Empiricism cites distress risk, overreaction, forced selling and index migration (Graham/Dodd; 1934; Fama/French 1992;1997; Basu; 1977)	
Carry	Stocks from companies that deliver sustainable growth, underpinned by low analyst earnings dispersion and distributed via dividends and share buybacks tend to deliver excess returns in the long run. Empirical papers cite carry, low earnings dispersion and underreaction to good news (<i>Harvey, 2000; Liodakis, 2003; Gwilym, 2008; Moskowitz, 2013</i>)	
Quality	In the long run, stocks from companies that exhibit higher balance sheet, income and cash flow statement quality tend to outperform. Empiricism cites expensiveness of junk stocks, lottery tickets and beta constraints (Altmann, 1968; Ohlson, 1980; Piotroski, 2000; Asness 2013)	
Size	Stocks with lower market capitalization tend to outperform large caps over time. Empirical literature cites higher default and liquidity risk as well as index migration (Banz, 1980; Fama/French, 1993; Barry, 2002; Guidolin, 2005; Asness 2015)	
Momentum	In the long run, stocks with higher price momentum deliver higher returns. Researchers from various fields found reversal risk, over- and under-reaction as an explanation (Jegadeesh/Titman, 1993; Chan/Jegadeesh/Lakonishok,1996; Carhardt, 1997)	
Low Risk	Stocks with lower stock price volatility tend to outperform in the long run. Empiricism cites expensiveness of junk stocks, lottery tickets, over-confidence, shorting/leverage/beta constraints and fund flows as possible explanations (Haugen/Baker, 1991; Blitz/van Vliet, 2007; Haugen/Baker, 2008; Cowan/Wilderman, 2011)	
Low Carbon	Stocks with lower carbon exposure outperform due to higher growth opportunities (Wesentlichkeit von CO ₂ -Emissionen für Investitionsentscheidungen Prof. Dr. Alexander Bassen/Prof. Dr. Timo Busch/Stefan Lewandowski / Franziska Sump, 2016); In search for climate smart investments – the case of European equities (Alpha Centauri, ISS ESG, Prof. Bassen, Uni Hamburg; Decarbonization Factors, Harvard University 2019	

Different Approaches

Some papers validate the existence of factors in ESG and Low Carbon





Data challenges in ESG

... and the risks of quantitative ESG strategies of index providers delivered via ETF's

Data challenges in ESG

Disagreement in ESG data and ratings across providers

MIT /2019

IDEAS MADE TO MATTER | SUSTAINABILITY

<u>Why ESG ratings vary so widely</u> (and what you can do about it)

by Tracy Mayor | Aug 26, 2019

☐ Why It Matters

It's hard to assess corporate social responsibility when ratings diverge so dramatically. Research suggests ways to work around the 'aggregate confusion.'

上 Share 🛱

Environmental. Social. Governance. In recent years, ESG, also known as sustainability or corporate social responsibility, has moved from the feel-good fringes to the center of business decision-making.

Consumers want to purchase products from companies that reflect their values environmental protection, the empowerment of women, or the absence of child labor, for example. Investors, meanwhile, want to know if they are financing activities that might pose a reputational risk.

Their message is getting through — by <u>one estimate</u>, some 80% of CEOs believe demonstrating a commitment to society is important and look to sustainability ratings for guidance and benchmarking. An estimated \$30 trillion of assets are invested worldwide that rely in some way on ESG information, a figure that has grown 34% since 2016.

Scientific Beta/2020



Data challenges in ESG Disagreement in ESG data across providers

Correlation of ESG data/ratings lower than 0,3 compared to 0,99 in credit ratings

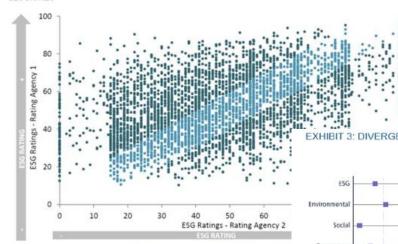
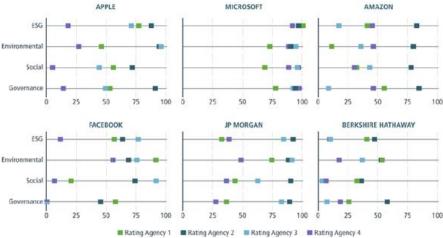


EXHIBIT 1: DIVERGENCE OF TWO ESG DATA RATING AGENCIES ACROSS GLOBAL UNIVERSE OF

SECURITIES

Represents each security within global universe

Source: Refinitiv and MSCI and QS Investors Research. Rating Agency 1 represents MSCI El Thomson Reuters ESG ratings. Universe: MSCI World. Data as of December 31, 2018. EXHIBIT 3: DIVERGENCE IN ESG RATINGS ACROSS LARGE, GLOBAL COMPANIES



Source: MSCI, Sustainalytics, Robeco and Refinitiv, Ratings as of February 2019, Rating Agency 1 represents MSCI ESG ratings; Rating Agency 2 represents Thomson Reuters ESG ratings; Rating Agency 3 represents Sustainalytics ESG ratings; Rating Agency 4 represents Robeco ESG ratings.



Passive strategies with a low trackingerror to traditional benchmarks

... and the question, if they can add economic value beyond "doing good"

Passive strategies

Passive means low tracking error to benchmark not ETF to underlying index



Passive strategies

Passive exposures target the left side, everything else needs active risk-taking

Economic materiality	
"Cash Flow"- channel	
• Sales	
Cash Flows	
• Earnings	
• Dividends	
"Discount factor" (cost of capital)-channel	
Interest rate	
Risk premia / beta	

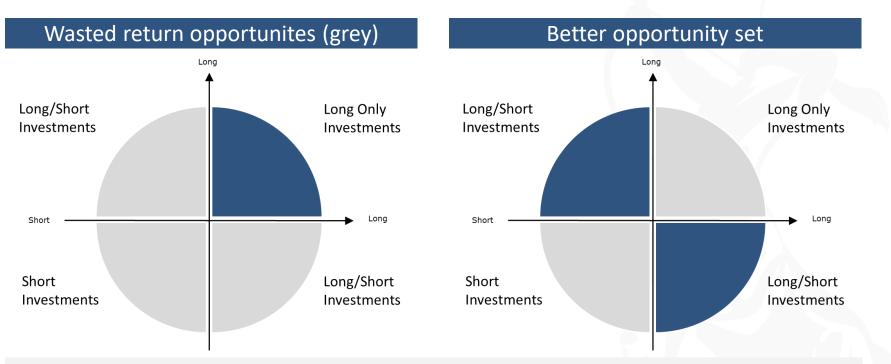


Factor Investing in combination with carbon footprint reduction

... and the question if this combination can deliver a better risk-/return trade-off than passive approaches via ETF or active Long Only-strategies

The case for Long/Short

Long/Short - higher returns, lower level of "unintended risks"



- Long Only active
 - "Wasted opportunities" in Long Only investments
 - "Unintended bets" because of weights-based allocation instead of risk-based portfolio construction
- Long/Short
 - Higher return potential, better risk control
 - Higher transfer coefficient for active positions

The case for Long/Short

UN-PRI and AIMA: Short Selling excellent way to implement ESG

UN-PRI Technical Guide		
Principles for Responsible Investment		Resources, events, signatories, more
Technical guide	HEDGE FUNDS	
		Most popular Latest
Module III - Investment process		The reporting process

Quotation

...."There are a range of questions around the relationship between ESG and short selling. Short selling is one way for a hedge fund manager to express the view that an entity is not adequately incorporating ESG factors."....

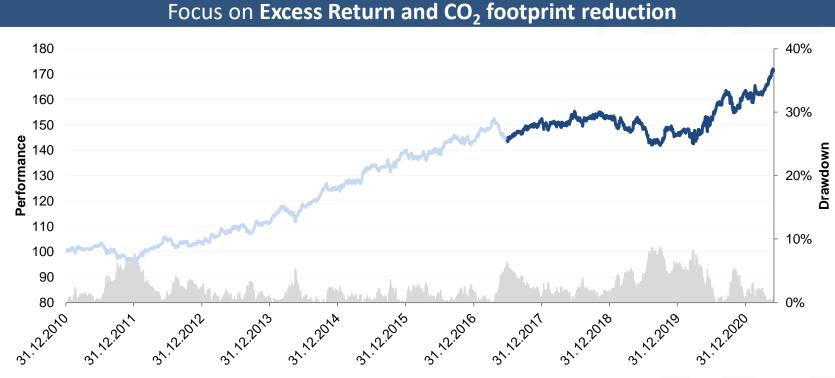
AIMA Whitepaper



Quotation

...."Short selling can be an excellent tool for achieving two common goals of contemporary responsible investment: mitigating undesired ESG risks, and, when taken in aggregate, creating an economic impact by influencing the nature of capital flows through 'active' investing."....

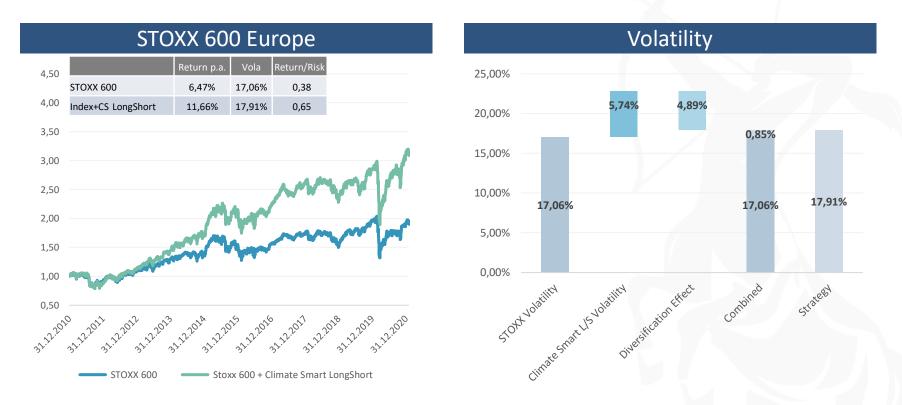
AC Climate Smart Long Short Combination of equity factors + low carbon factor



	2021	2020	2019	2018	2017	2016
Performance	4,96%	11,87%	-4,30%	0,51%	5,83%	2,5%
Volatility	4,81%	8,43%				

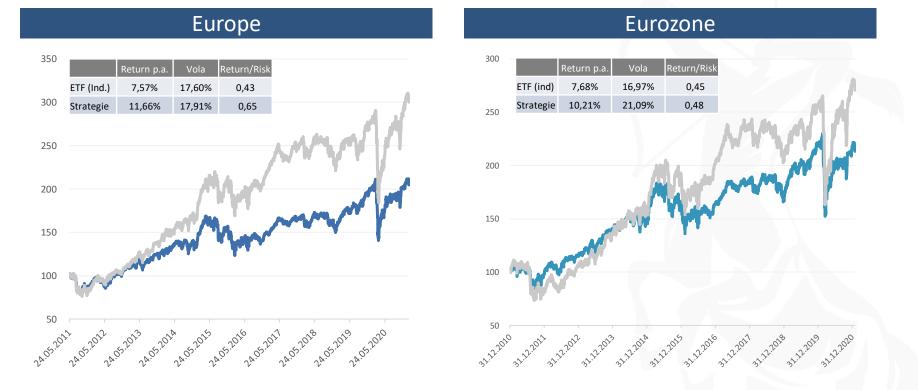
* Past performance is no guarantee of future returns. Fees, commissions and other costs may have a negative impact on performance. Returns may increase or decrease due to currency fluctuations. The performance is the percentage change between the value of assets at the beginning and at the end of the investment period. Source: Alpha Centauri Investment Management GmbH. Simulation includes transaction costs but excludes management fees; out of sample performance starting 01.01.2015 time period under consideration: 01.01.2011 -31.05..2021

Portable Beta Long/Short can be "ported" on any benchmark



- Combination of Long Only (Benchmark) and Long/Short in one product
- Substantial improvement in return without a material impact on risk

Portable Beta Comparison to ESG ETF's – higher Sharpe ratio, negative CO, footprint



- "Porting" of Long/Short- factor betas on a Long Only benchmark or existing equity portfolio more efficient than conventional active Long Only
- Higher return expectation, better Sharpe Ratio and higher carbon efficiency

*Sources: Provider data, ISS ESG data, Alpha Centauri calculations

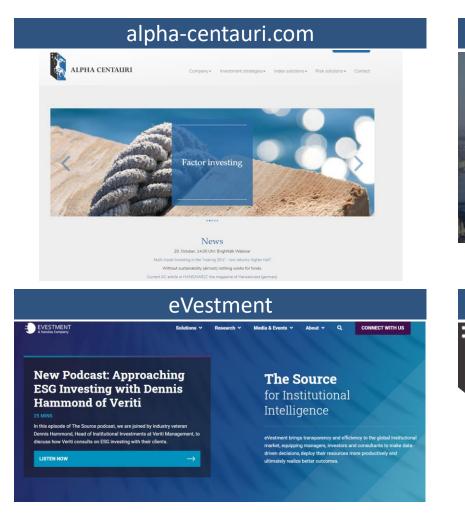
ESG, Factor Exposures and ETF's

Summary

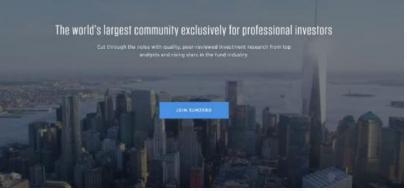
Key takeaways / Our views		
Different approaches to ESG- and Low Carbon investments	 are easy to implement in the light of more than 700 ESG ETF's need a holistic view on portfolio risk with respect to the findings of Northern Trust 	
Data challenges in ESG	 are a major problem in ESG will persist even with a more unified taxonomy (backfilling & overwriting) 	
Passive strategies with a low tracking error to traditional benchmarks	 add no economic value (in terms of outperformance) beyond "doing good" in our point of view 	
Factor Investing in combination with carbon footprint reduction	 can deliver a better risk-/return trade-off than passive approaches via ETF or active Long Only- strategies 	

Thank you for your attention

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SumZero



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