



CAMRADATA

The Future of ESG Data Whitepaper

NOVEMBER 2021

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Welcome to CAMRADATA's The Future of ESG Data Whitepaper

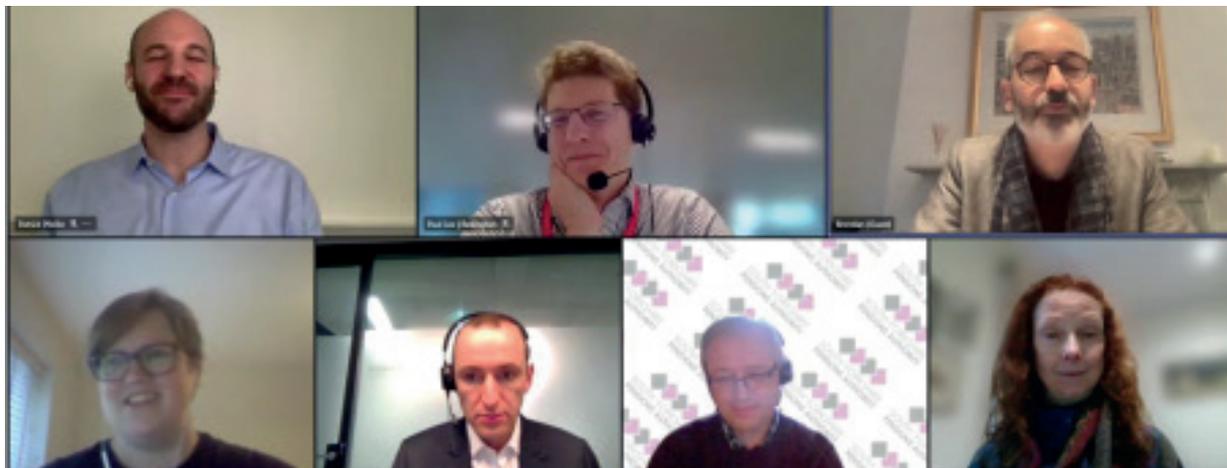
The old saying goes that if you can't measure it, you can't manage it. This has long been an impediment to incorporating ESG data into portfolio analysis. Pension funds and insurers are often confronted with patchy data that leave them unconfident in making holistic evaluations.

There is a rising tide of regulation, however, that not only encourages them to make such evaluations but also for data providers to improve the fact sets on which evaluations are based. These are early days: regulatory ESG reporting is not uniform across the world and has a long way to go to match financial reporting. Levels of greenwashing have also risen, not diminished, as organisations seek to protect their image. Having said this, investors have always had to predict the future fortunes of investee companies.

Scenarios based on climate risk or employee satisfaction join lots of others in the forward-looking statements that companies have been making to financial markets for decades. This whitepaper will delve into how our industry can organise the growing number of ESG data into a meaningful part of the assessment process.

The Future of ESG Data Roundtable

The CAMRADATA Future of ESG Data Roundtable took place virtually on 30th November 2021.



SOUND INVESTING is based on information. Any asset manager with an informational advantage or 'edge' over rivals is more likely to prosper. Disclosure of financial data by publicly-quoted companies, however, has become fairly standardised around the world. Corporate reporting on Environmental, Social and Governance issues (ESG), by contrast, is far more variable. Even vendors of ESG data don't agree on how to interpret and weight these metrics. This matters more and more as the importance of ESG grows for asset owners and their asset managers who directly or indirectly provide long-term financing of companies and projects.

"Good data are crucial for us to do our job properly," George Graham, fund director of the South Yorkshire Pension Authority (SYPA), said at the start of CAMRADATA's 2021 roundtable on the future of ESG data. The other panellists were then asked which three kinds of ESG data were most valuable to their work.

Roger Lewis, head of ESG at River & Mercantile, started with GHG emissions data from companies,

"Even vendors of ESG data don't agree on how to interpret and weight these metrics. This matters more and more as the importance of ESG grows for asset owners and their asset managers."

split by scope, sector, country and type of gas.

His second kind was standard ESG scores and research from third-party vendors, which he described as essential but a starting point only.

His third kind was forward-looking information to help understand which companies would be winners and losers from Climate Change, in order to drive investment decisions.

Patrick Pfeifer, senior quantitative analyst at PGIM Quantitative Solutions, said his firm's goal was to build models that gave a true assessment of any investable company. He saw value in ESG data for all corporate stakeholders, not just shareholders but customers, suppliers and employees. But to be valuable to PGIM Quantitative Solutions, he said the datasets had to have breadth, depth and comparability. He then defined the three kinds of ESG data PGIM Quantitative Solutions relies on. The

first is 'hard' data extracted from company reports. The second is estimated and interpolated data, such as projections a company may make for its path to Net-Zero Carbon.

The third kind was ESG scores and more subjective analysis, which PGIM Quantitative Solutions can aggregate.

Advisory firm, Our Carbon helps organisations measure, reduce and offset their carbon emissions. By virtue of supply chain, the majority of Our Carbon's clients are Scope III indirect emissions to large companies with mandatory carbon reporting. Laura Hendy, CEO of Our Carbon outlined three sources for producing such reports. The first source of data is the company's financial statements "front and back, the whole thing." The second source is interviews and coaching sessions with employees to better understand wider Scope III carbon emissions. She said that staff

provide you with information you can't get anywhere else.

The third data source is the carbon emissions factors measured and reported by the UK's Department for the Environment, Food & Rural Affairs (DEFRA).

Paul Lee, head of stewardship at pension fund consultancy, Redington, said it was really difficult to generalise because ESG issues were bespoke to each business model. Nevertheless, he saw a handful of things which apply to all. Regarding financial statements, Lee warned that the biggest problem was where the front and back of the company report don't join up. Before joining Redington, Lee conducted research alongside Carbon Tracker on the discrepancies between the front-end and back-end of corporate accounts (collated in the recent Flying Blind publication). "Essentially, there was no connection at all," Lee told the CAMRADATA panel. "Capex was still going into carbon intensive assets whose expected useful lives extended beyond the company's Net-Zero promises." He said that such a dramatic disconnect could give you little comfort that the Net-Zero promises would be delivered.

On emissions data, Lee said investors do at last have a pretty standardised view of what they look like across markets. But he felt that metrics on people – the 'S' in ESG – were still lagging and remedial action was needed there.

As a manager in charge of a fund with 170,000 actual and prospective beneficiaries, Graham said: "I always start with the question: 'what am I going to use the data for?' As an asset owner, I am going to use them to hold asset managers to account. Secondly, the data will help tell our story to members of the scheme. I want to see that our portfolio's ESG rating is better than the benchmark and continuing to improve."

Graham said that SYPA had ambitious carbon-emission-reduction targets. "We want to see

to two local pension authorities in the UK, suggested that there was possibly more going on than wilful greenwashing. She said some reports don't join up because the corporate is worried about getting sued for failure to comply with financial reporting regulations. In other words, rules temper what can be said in the accounts on sustainability ambitions.

Her first kind of valuable ESG data was the corporate's assumed carbon tax. This is not obligatory but where companies do disclose it, especially with regard to capital

"We are caught between the people whose money is being invested and the people managing that money for a good return."

that moving at a rapid rate."

On people metrics, he agreed with Lee that there is a gap. "Questions I most frequently get asked by members – after those on emissions - tend to be about large corporates ripping off indigenous people or their own workforce. Having the metrics to agree with or rebut the accusations is helpful. We are caught between the people whose money is being invested and the people managing that money for a good return."

On the disparity between the front and the back of corporate accounts, Elizabeth Carey, an independent investment adviser

expenditure, Carey said it told investors a lot.

The second kind was any ESG criteria manifest in Key Performance Indicators for board executives in a firm. "It is all very well a company having lofty ambitions but how these people are remunerated influences how they behave," she said.

Carey's third kind resembled Lewis's, focussing on opportunities for enhanced returns from sustainability and the energy transition rather than simply risk. She saw plentiful evidence of companies providing remedies to Climate Change, from those





in the circular economy to infrastructure to agriculture. She saw opportunities for businesses improving on traditional processes as well as some with disruptive models.

Nothing black or white

Graham said that questions on ESG from members were often framed in an absolute sense, which ends up with an emotional demand to either divest or engage. “Life is rarely black or white,” he told the CAMRADATA panel. “It is actually shades of grey. But we get asked why the US portfolio doesn’t invest in Tesla. Well, there are major governance and health and safety issues at that company. Likewise, we could divest from Shell but it wouldn’t move anything.”

Graham said SYPA didn’t make decisions based on emotion. Instead, it needs better data. He clarified that information on listed equities was actually adequate and “not bad” for credit. The greatest need regards private assets. “We have independent consultants

“Carey’s fear, however, was that as more standards, initiatives and alliances come to the fore, life for pension fund officers will become more complex as they are required to comply with a whole raft of new regulation and legislation.”

struggling to get Private Markets managers to provide information based on standard industrial classifications,” he said. “I despair, especially in Private Equity, that it should be so tortuous to obtain basic information.”

Lewis asked whether SYPA had surveyed plan members to gauge their interests. He noted that River & Mercantile had done so in conjunction with a large DC client to work out which funds to hold on its platform.

Graham responded that SYPA had 170,000 members: so any survey was a serious undertaking. Secondly, he noted that at the annual fund meeting, ESG questions were the most frequently asked, but they tended to be on

particular issues and by members with a diehard interest in that particular issue.

Carey said that engagement had become more activist: “we have to pick our slots and act in concert to get laggards to change. Not just have endless meetings.”

On standardised data, she said that it was still a way off, even for carbon. “TCFD doesn’t include agriculture or shipping,” she noted. “These are big components of the economy.”

And she said that energy companies were in the frame for Climate Change but those further along the chain, responsible for Scope III emissions, enjoyed the benefits of goods produced using

fossil fuel energy but without the chastisement.

"I wonder if [companies in] these Low-Carbon index funds really will be so Low Carbon once Scope III data is included," she mused. "We need to be more switched on."

On COP26 she said that the pronouncements point to this as a journey: "It's a phasing down of coal: it's all British plcs having to publish Net-Zero-Carbon pathways; it's the creation of the International Sustainability Standards Board (ISSB)." Carey's fear, however, was that as more standards, initiatives and alliances come to the fore, life for pension fund officers will become more complex as they are required to comply with a whole raft of new regulation and legislation.

On Scope III emissions, Hendy said we are all reliant upon each other in our reporting. "That is where comparability lies. Clients ask me: what do I need to give you for a carbon footprint? By the end of the conversation they won't have all that data. But these are suppliers to Tesco's, Lloyd's Bank and the government: big organisations that are mandated to report emissions." She said it was a connected process of getting over the hurdles to capturing Scope III emissions.

Hendy was asked what steps clients could take in the absence of all the data. She responded that pragmatically, Our Carbon applies a data quality score in order to assess the current strength of reporting. This allows a measurement of progression in reporting. Our Carbon coaches clients to identify their blind spots and hot spots for the future. This allows direct action in a targeted approach which can align to wider business strategy. She said costing models are one way for educated estimation which gets people on the journey "that the excuse of imperfect data shouldn't prevent us from beginning."

Lee picked up on the issue of patchy data, which has always

been troublesome for those used to audited financial numbers and seeking the same with regard to ESG. He said it was hard to be precise and specific about how and when ESG matters would have an impact on corporate fortunes. He believed that hitherto the emphasis has been on ESG data as risk management, to avoid corporate fraud and disaster.

"We are now moving towards something less patchy with the creation of ISSB, which is one of the most concrete outputs of COP26," he said, before noting that we were still waiting in early December for a board to be appointed to the ISSB.

Pfeifer drew a distinction between patchiness in depth and breadth. He picked up on a point Lee made that the UK looked likely to adopt ISSB standards on emissions reporting early, while other countries might be more reluctant. Robust quant models require breadth, not just depth, and Pfeifer saw challenges when evaluating emissions data in global portfolios, especially information from some Emerging Markets.

On patchiness, Lewis delved further into the points that ESG data providers didn't agree on aggregate scoring, it's mostly backward looking, inputs and outputs usually aren't audited, and the processes are opaque.

He gave the often-quoted example of Tesla, which scores highly if the ranking prioritises environmental criteria based on emissions from transport, but low when the total carbon, including battery production, is considered. Likewise, Lewis said that Aviva, the UK insurer, was scored AA by MSCI. "MSCI bases that score on about 40 criteria. How do they decide which criteria are most germane to each business? Can they, or indeed anyone, be expert in all 40? Some of the inputs are robust (such as CDP) while others are not."

He gave another example regarding Bayer, the German chemical and pharma giant.

Sustainalytics had given the company a watchlist status regarding the UN Global Compact Human Rights Principles. But when River & Mercantile spoke to Bayer, the company questioned whether it's a genuine issue given their progress to remedy. "Active asset managers have to supplement the data with our own analysis for both investment and engagement," Lewis concluded.

Pfeifer then emphasised that given myriad data points relating to companies, materiality was how to sift and weight them. He praised SASB for its third-party assessment of companies and material elements (PGIM Quantitative Solutions is a member of the Investor Advisory Group of SASB, which will be absorbed into the ISSB in 2022).

Pfeifer continued: "We are making decisions on which data points to use. We prefer company reports over forward-looking statements: what the company is doing versus what they are saying."

He agreed with Lewis that while ESG data from third-party vendors were useful as "soft" data, there was very low correlation between vendors' scoring systems.

Graham picked up on this last point. SYPA, as part of the Borders to Coast Pensions pool within the UK's Local Government Pension Scheme, is tendering for a new ESG data provider. "Inconsistency between data providers creates new jeopardy for an asset owner," said Graham. "What if a new data provider rates one of our equity portfolios X which the old provider rated Y?" he asked. "Conceivably, all our portfolios could have a new ESG rating versus the benchmark."

Graham said this might have some good in it for an asset manager who is buying and selling stock "but that is not what we as an asset owner are using the data for."

Carey described Graham's dilemma as model risk. "You don't know if one model is better than the other."

"Inconsistency between data providers creates new jeopardy for an asset owner."

Material Assets

Lewis then turned the discussion towards real assets, a sector wherein he said there was coverage for real estate and infrastructure by GRESB; but this required supplementing with investors' own ESG analysis as well.

He added that River & Mercantile have discussed modelling from Ortec Finance that pinpoints each place in the world by longitude and latitude, then models climate impact on a five-metre-radius from each point under three scenarios. The three are an orderly transition to the Paris agreement to limit warming at 2°C; a disorderly transition; and a failed transition. Lewis said that for real assets investors, they get a sense of material physical climate risks and impacts to an investment by this future-mapping.

Carey pointed out that weather and geography did not tell you all the risks an asset faced, e.g. where and how it sourced power.

Hendy said that in her training as an auditor, she was taught to reperform the accounting of client firms to ensure accuracy. She asked the managers whether clients could reperform their processes.

Pfeifer responded that the process PGIM Quantitative Solutions uses to build ESG scores from the underlying data is reproducible and transparent. Clients can see scores for individual securities and see how the underlying data were used to create those scores. The data themselves are collected from sources and normalised by third-party ESG data vendors that PGIM Quantitative Solutions has carefully vetted to ensure consistency and transparency of their processes. Data integrity checks continually verify the validity of the data used as input to build the ESG scores.

Lewis interpreted the question as one of communication. "Clients receive annual reports, which include case studies and metrics. Our biggest clients come in for direct meetings. We have had several recently asking us to relate their portfolios to the UN Sustainable Development Goals,



“Most people don’t engage with the numbers, stories engage them. ESG is the interface between the investment and the real world.”

which is an upgrade and not part of a standard ESG package from commercial data vendors.”

Lee agreed with Lewis that ESG had a vital role to play engaging people with the investment world. “Most people don’t engage with the numbers,” he said. “Stories engage them. ESG is the interface between the investment and the real world.”

As the pandemic persists, Lee suggested that investors were realising that society matters, and that meant the ‘S’ in ESG was a big portion of future opportunities. He cautioned, however, on the great variety of social data reported by companies. “If you try to aggregate the data, there are big holes and you run the danger of losing insights,” he said. “I’m not sure currently that you can get something useful at the portfolio level.”

Lewis pointed out that there was no equivalent to the CDP disclosure platform to provide robust, independent and validated social data. The CAMRADATA panel agreed that data compiled by the International Labour Organisation, the Corporate Human Rights Benchmark and the Workforce Disclosure Initiative are not

comprehensive.

Pfeifer said that it was important to establish Social metrics in models through financial data. He gave examples of how reported social diversity within firms fed through into sales or diversity in Research and Development improved the product pipeline.

The CAMRADATA roundtable closed on a positive note, looking toward opportunities where business could prosper from the transition to a decarbonised economy. Lewis said that twenty-five years ago the internet changed the world. Now there is a similar revolution happening because of sustainability. “River & Mercantile want to be invested in the winners from this revolution, not the losers,” he said.

Graham agreed that SYPA is looking for those businesses that can make a good return solving the problems Climate Change brings. But he added that the ‘S’ and ‘G’ were increasing considerations too. “We also want to hire managers where we can feel comfortable with how they are using the power that the money we give them brings,” he said.

Roundtable Participants



Patrick Pfeifer, CFA
Senior Quantitative Analyst

Personal Profile

R. Patrick Pfeifer, CFA, is a Principal for PGIM Quantitative Solutions working within the Research team. In this capacity, he is responsible for alpha and implementation research that may be applicable across markets and strategies.

Prior to his current role, Patrick designed, built and managed technology systems to support research and the daily investment process. He earned a BS in electrical engineering from the University of Pennsylvania and an MBA in quantitative finance from the New York University Stern School of Business.



PGIM Quantitative Solutions

Company Profile

As the quantitative equity and multi-asset solutions specialist of PGIM, we seek to help solve complex investment problems with custom systematic solutions across the risk/return spectrum.

We can customize down to the stock level for portfolio considerations, with product offerings that range from core solutions and systematic macro to multi-asset portfolios and overlays.

We manage portfolios for a global client base with \$113.7 billion in assets under management as of 9/30/2021.

Roundtable Participants



RIVER AND MERCANTILE

Roger Lewis

Group Head of ESG

Personal Profile

Roger provides expertise and problem solving around Environmental, Social and Governance (ESG) matters at R&M. Areas of focus are designing and implementing strategy, integrating ESG to investment decisions and ongoing asset management, defining solutions for clients and engagement for ESG.

Roger previously worked at Aviva Investors, where responsibilities included aligning ESG strategy and factors with investment functions across its £47.3bn Real Assets platform, which invests in property, infrastructure and private debt. Prior to this, Roger held roles at Legal & General Investment Management and J.P. Morgan.

Roger has completed the UN Principles of Responsible Investment programme, holds the CFA UK Diploma in Investment Management (ESG) and has passed Level 1 of the Chartered Financial Analyst programme.

Roger is also a passionate advocate for limiting climate change to 1.5 degrees above pre-industrial levels

River and Mercantile

Company Profile

River and Mercantile Group PLC specialises in investment solutions and asset management and is listed on the London Stock Exchange.

The group serves a range of institutional investors and investment intermediaries with tailored solutions and investment strategies, covering equities and alternative investments.



Laura Hendy

CEO

Laura is CEO of Our Carbon, the leading shareable carbon accounting firm for SMEs, social enterprise and charitable organisations. Working with clients to produce transparent and trustworthy, publishable accounts of their carbon emissions. Focus is to make carbon reduction planning and the journey to net zero simple, exciting and accessible.

Prior to joining Our Carbon, Laura has an extensive wealth of experience as an Audit manager and Chartered Accountant at PriceWaterhouseCoopers (2012 - 2021). Responsibilities included management of key regional manufacturing clients, and lead on audit transformation for Wales. Client portfolios specialising in privately owned business, higher education and public sector.

Laura holds ICAEW membership as an Associate Chartered Accountant (since 2015) and a BSc degree in Business Management.



Paul Lee

Head of Stewardship and Sustainable Investment Strategy

Paul is responsible for the substantive delivery of Redington's stewardship and sustainability services to clients, having spent more than two decades delivering ESG and stewardship services, helping shape the market as a whole. More than a dozen of those years were at Hermes, helping to create and build the world-leading Equity Ownership Services (EOS) business.

After a time at the NAPF (National Association of Pension Funds, now the PLSA) as Head of Investment Affairs, he joined Aberdeen Asset Management as their first global head of corporate governance and stewardship. He left Aberdeen following the merger with Standard Life and spent three years as an independent consultant, working for among others the Investor Forum and as a member of the secretariat of the Brydon Review into the Quality and Effectiveness of Audit.

Paul is also a member of the UK Endorsement Board, which is responsible for adopting IFRS financial reporting standards for application in the UK. He writes a well-regarded blog



Roundtable Participants



George Graham

Fund Director

George joined the South Yorkshire Pensions Authority as Fund Director in February 2018 and as Head of Paid Service is responsible for the management of all aspects of the Authority's activity.

Previously he was Managing Director of LPP's pension administration business, having led the Lancashire County Pension Fund prior to the transfer of its staff to LPP as part of the creation of the joint venture with the London Pension Fund Authority.

A fellow of CIPFA George's previous career in local government finance involved roles as Deputy County Treasurer at Lancashire County Council, Director of Resources at Rossendale BC and Director of Finance at Chorley BC preceded by roles at Northamptonshire CC and Oxfordshire CC where he did his CIPFA training.



Elizabeth Carey, CFA

Independent Investment Advisor

Elizabeth serves as Independent Investment Advisor to the Bedfordshire Pension Fund and as an Independent Research Analyst for the Greater Gwent (Torfaen) Pension Fund. She brings a background in banking, capital markets and corporate finance to her work in investment management and portfolio analysis. With pooling, she finds increasing commonalities between corporate finance and managing LGPS fund assets, particularly in the areas of governance, oversight, accountability and responsible investment / ESG.

Elizabeth began her career at Lehman Brothers in New York and moved to London in the late-1990s. Subsequently she worked at Goldman Sachs International and GE Capital, where she did M&A for its European commercial finance business.

Elizabeth is a governor of two state secondary schools in London, both of which are LGPS employers. As chair of the Finance & Premises committee for one, she tends to regard management of LGPS funds from an employer /employee's viewpoint as well as that of an investment professional. Elizabeth graduated from Yale University with a BA in Comparative Literature (German and French).



Moderator



Brendan Maton

Freelance Journalist

A highly experienced financial journalist with an expansive network of contacts in the UK and across Europe. Brendan has written about pension schemes and national welfare systems from Finland to Greece for 18 years and understands the retirement savings industry in each European country.

Brendan has interviewed EU commissioners and national ministers; central bankers; pension scheme heads; insurance chief executives; chief investment officers; actuaries; union officials; professional and lay trustees.

He worked at Financial Times Business for eight years, finally as editor-in-chief of all international pensions titles. Brendan has spent the last ten years as a freelancer for a number of publications, including Financial Times, Responsible Investor, Nordic region pensions news and IPE. He is also Chief webcast host for IPE. Brendan has acted as conference chair for Financial News, the UK National Association of Pension Funds, Dutch Investment Professionals Association (VBA), Corestone, Insight Investment, Marcus Evans, Robeco Asset Management, Sustainable Asset Management (SAM), Towers Watson.

A Case Study in how Factor Scoring Techniques Can Overcome Investment Policy Constraints



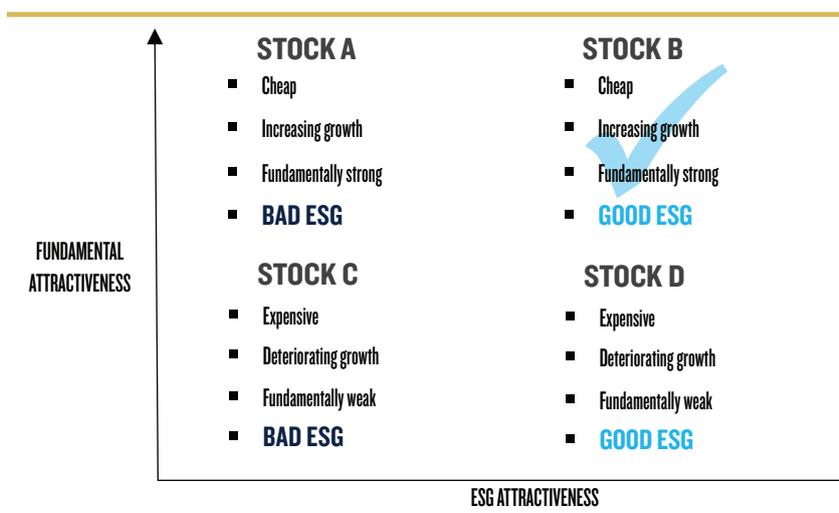
“Key stakeholders and the ESG issues vital to them vary in importance across industries, so we centre our focus on those insights where an ESG rationale can have a material impact on firm performance.”

An Active Approach to ESG Indexing with Exclusions

While demand for ESG investing rises, asset managers remain challenged by limits on accessible and consistent data. As investors increasingly question the validity of investing in Energy stocks, evolving investment policies entirely divest the sector. To address these needs, we constructed an ESG index solution that excludes Energy stocks yet can deliver improved performance, risk, and ESG metrics as compared to a standard market index.

Key stakeholders and the ESG issues vital to them vary in importance across industries, so we centre our focus on those insights where an ESG rationale can have a material impact on firm performance. We apply our quantitative expertise to overcome data comparability and availability issues to construct a proprietary ESG score, which is used to build portfolios tilted towards high-ESG companies. We also consider performance drivers that may improve the quality of ESG exposure to help identify opportunities where the benefits of ESG are mispriced, where ESG attributes translate into growth, and where ESG quality aligns with fundamental quality.

We believe an effective ESG portfolio should carefully balance ESG insights with performance and risk drivers.



Our ESG solution uses the MSCI World Universe, but aims for improved ESG exposures, performance comparable to the benchmark, low tracking error, Beta of ~1, and zero portfolio weight to the Energy sector. To test our approach, we constructed two PGIM Quantitative Solutions (PQS) indexes: 1) PQS ESG Index; 2) PQS ESG ex-Energy Index. Our PQS ESG Index targets a 20% improvement in the PQS ESG score relative to the MSCI World Index, while keeping risk and return attributes aligned with the benchmark. The PQS ESG ex-Energy Index follows a similar construction approach, but excludes the Energy sector. Our results show that there is no performance impact associated with excluding Energy. The annualised excess return for our PQS ESG ex-Energy Index is +0.86% compared to +0.23% for the PQS ESG Index (gross of fees). To understand whether the improved performance is due to stock selection or due solely to excluding Energy, we constructed a MSCI World ex-Energy Index, reallocating the weight of the Energy sector across all remaining sectors in proportion to their index weight. Given the significantly lower annualised excess return of this index (+0.34%), we can conclude that the source of the additional performance from our PQS ESG ex-Energy Index stems from improved stock selection arising from our alpha and ESG factors. Effectively, the weight of the Energy sector is allocated across other sectors based on attractive alpha and ESG opportunities.

Authors:

Gavin Smith, PhD
Head of Equity
Research

Patrick McDonough
Portfolio Manager

Sophia Zhang, PhD
Vice President

Comparisons of risk characteristics for the simulated portfolios are also notable. For our standard PQS ESG Index the tracking error is ~0.80%. When the Energy sector is excluded, the tracking error of our PQS ESG ex-Energy Index increases modestly to ~1.2%. Although the tracking error of the MSCI World ex-Energy Index is ~1%, it holds on average 1514 stocks, compared to 1631 for the standard MSCI World Index. In contrast, our ESG index alternatives both hold ~600 stocks. As such, our ESG ex-Energy solution, which holds ~1000 fewer names than the index yet delivers only modestly higher active risk, shows an impressive outcome.

Our solutions also show improved exposure to stocks with better fundamental attributes (value, growth, and quality). Both of our ESG index solutions tilt towards stocks with more attractive fundamental attributes. This tilt is important for ESG investors because stocks with better fundamental attributes are expected to produce more reliable long-term performance. In addition to improved exposure to stocks with stronger fundamental attributes, investors also gain exposure to stocks with more attractive ESG attributes.

Putting it Together: Eliminating Sector Exposure

For investors most concerned with minimizing exposure to fossil-fuel-intensive companies, focusing on an overall ESG score exposure may not be meaningful. So, we turn to raw ESG data starting with carbon emission intensity. The increased selectivity of our index solution lowers the carbon emission intensity by ~29%, as compared to the MSCI World Index. The same measure is lowered by only 8% for the MSCI World ex-Energy Index. We can further deconstruct the ESG exposure by considering exposures to additional ESG metrics such as water usage intensity and percentage of women in management. Interestingly, water usage intensity is not improved by excluding the Energy sector from the MSCI World Index. However, for the PQS ESG ex-Energy Index, we do see a meaningful reduction (~10%) in water usage intensity across our back-test period.

Examining the percentage of women in management (as a proxy for diversity), we find that the MSCI World ex-Energy Index has a higher percentage of women in management when compared to the MSCI World Index. This is an indication of the male-centric nature of the Energy sector. Again, our PQS ESG ex-Energy Index demonstrates a further improvement in diversity with a higher percentage of women in management as compared to both MSCI Indexes.

Our research demonstrates that we can deliver viable index replacement solutions that produce market-like performance, while favoring better ESG companies and also excluding companies involved in certain business activities. Read our full research here:

<https://www.pgimquantitativesolutions.com/article/esg-indexing-exclusions>

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OUTSOLVE.

- | **Active ESG approach provides customised alternatives to indexing**
- | **Quantitative solutions tailored to achieve overall ESG goals**
- | **45 years of equity experience in various market environments**

In these challenging times, PGIM Quantitative Solutions is focused on helping you effectively integrate ESG into equity portfolios.

We customise quantitative solutions with an approach that balances sustainability, performance and risk drivers to improve ESG profiles in equity markets.

Join the pursuit of outperformance at [PGIMQuantitativeSolutions.com/ESG](https://www.pgim.com/quantitative-solutions/esg)

For Professional Investors only. All investments involve risk, including the possible loss of capital.

IN FOCUS

CAMRADATA ROUNDTABLES

CAMRADATA BRINGS TOGETHER
EXPERT FUND MANAGERS
WITH CAREFULLY SELECTED
INVESTORS IN A STREAMLINED
VIRTUAL FORMAT



“I have taken part in several roundtables over the last 18 months and this was the best orchestrated by far”

Investment Director, UK Consulting firm



“Just a note to say thank you for organising the panel and having me on it. I found the full group discussion super informative.”

Portfolio Manager, Global Asset Manager



“The CAMRADATA virtual roundtable went really well, as well as the live events, which was quite surprising! It was informative and interesting, and I know our Fund manager enjoyed being a part of it.”

Business Development Manager, UK Asset Manager



CAMRADATA

Interactive and dynamic debate • A wide array of asset classes covered • Branding, editorial and advertising opportunities as part of all roundtables • Expert investor panels • Ability to connect and network with key stakeholders

To find out more - **Natasha Silva** (Natasha.silva@camradata.com) would be delighted to speak to you.

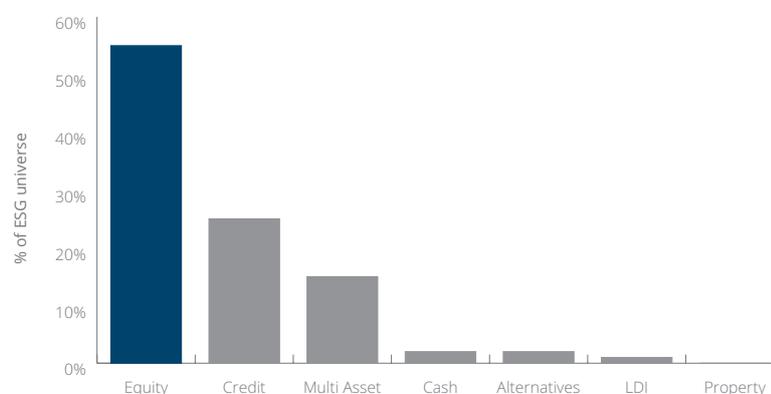
Applying ESG factors to different asset classes

RIVER AND MERCANTILE

“ With most DB pensions de-risking and equities becoming a smaller component of assets, people are looking for ways to allocate to other asset classes.”

A question we are asked quite frequently is how we can apply Environmental, Social and Governance factors (“ESG”) to different asset classes. This is not surprising as for a long time, the narrative around ESG has been mainly about equities. The extent to which this is true is illustrated by Chart 1 below, which shows the universe of ESG funds split by asset class, with more than 50% of the funds invested in equities. However, times are changing and with most Define Benefit (“DB”) pension schemes de-risking and equities becoming a smaller component of assets, people are looking for ways to allocate to other asset classes. Below we outline a few options to consider and ask your Fiduciary Manager about.

Chart 1. Equities dominate ESG funds



Source: Morningstar, April 2021, ESG Universe is defined by all fund names containing “ESG”, “Sustainable”, “Responsible”, “Ethical” and “SRI”.

Liability Driven Investment – LDI

Most schemes will already have an allocation to LDI, and it is possibly an increasing part of the portfolio. So, it’s definitely an area where investments’ ESG credentials should be considered. In September 2021 the first tranche of green gilts was issued, in which we participated. A further tranche was issued in October 2021 which we also took part in.

The issuance of green gilts is part of the UK Government’s aim to build out a green curve over the coming years. This is to meet growing investor demand and to raise finance to fund projects that tackle climate change, finance much-needed infrastructure investment, and create jobs across the country. Ultimately, the idea behind green gilts is to use the finance they raise for green projects in line with the UK’s target of net zero carbon emissions by 2050.

Clearly the bonds are also ‘gilt-edged’ in terms of repayment reliability, so if you have the flexibility to allocate to them please talk to us soon to see whether they can be incorporated into the LDI portion of your portfolio.

Alternatives

The use of ESG in alternatives is something that has been gaining a lot of traction in recent years. Obviously, there are all sorts of alternative investments, particularly in private markets such as infrastructure, but one that we are seeing increased focus on is hedge funds. Hedge funds theoretically sit really well with ESG, despite not being traditionally associated with the concept.



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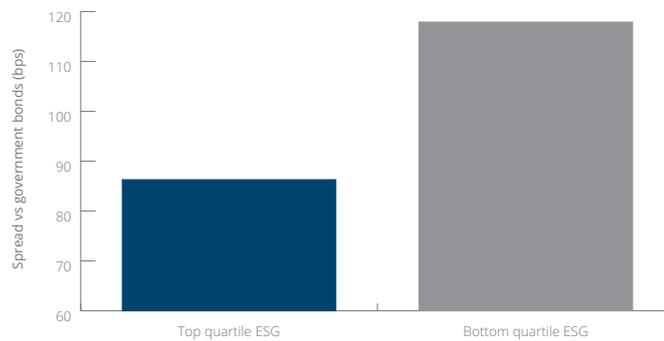
The manager would simply be required to buy stocks they feel are value additive in terms of ESG credentials, while selling short investments they believe are value destructive. It's therefore a perfect combination to use to engineer returns from an ESG perspective and a concept that we have incorporated into our fiduciary management clients' portfolios. This is an area where we expect to see more product innovation over the coming years.

Credit

Many schemes will have exposure to cashflow matching or buy and maintain credit where the main goal is the reliability of the income that is coming in. And the reliability of that income is predicated on those companies not defaulting. Again, there is a strong link with ESG, as companies with stronger governance and who generally manage ESG risks well, are more likely to meet the debt repayments and less likely to default.

The challenge of course is that you typically get paid less well to hold higher ESG rated bonds. In Chart 2 below, we show the universe of investment grade bonds split by ESG ratings. You can see spreads for top quartile ESG companies are on average, about 25% lower than those with the poorer ratings and thus holders are paid significantly less well to own them. It's therefore important that alongside being able to demonstrate their process for managing value, your buy and maintain manager should also illustrate how they are limiting your exposure to those high ESG risk companies.

Chart 2. A higher price to pay for ESG in credit



Source: MSCI ESG Research, Bloomberg as of 1 May 2021

Hopefully this has given some food for thought, and some areas to discuss with your Fiduciary Manager. In particular, it's a good idea to ask about specific examples or case studies where you can visualise how they might be approaching value additive ESG strategies.

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