

Turning up the volume, cutting through the noise

MAKING SENSE OF ESG DATA IN REAL ASSETS

WHITE PAPER

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Introduction

The rapid growth of responsible investment has led to a boom in the provision of ESG data.

Spending on ESG data is set to reach over a [billion dollars](#) in 2021, double the amount spent only three years ago. And behind the scenes, ESG data providers are poring over reams and reams of data to score companies and portfolios and set benchmarks and standards in an immature market.

One leading ESG research provider now offers more than 220 ESG indicators, across 11,000 companies – that’s over 2.4 million data points.

Across the ESG research market there are also myriad sources and ways to interpret the data, leading to an overall lack of quality in the ESG data in the market at large.

It’s why we are seeing instances like British American Tobacco, famous for producing cigarettes, and Glencore, a mining company, being investigated for alleged fraud offences, despite being ranked in the top five most environmentally and socially responsible companies on the FTSE 100.

The first graphic is an illustration of a perfect scenario when it comes to ESG data. The second is where we currently find ourselves, and why we feel that there is considerable benefit to highlighting the challenges we collectively face.

FIGURE 1 ESG data in a perfect world

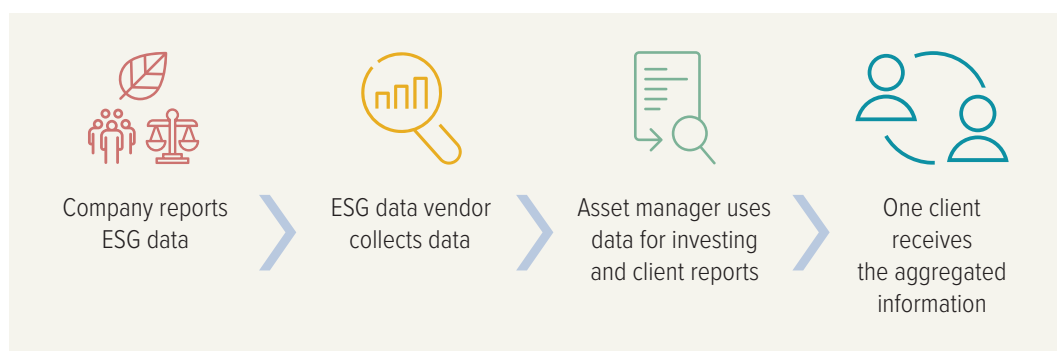
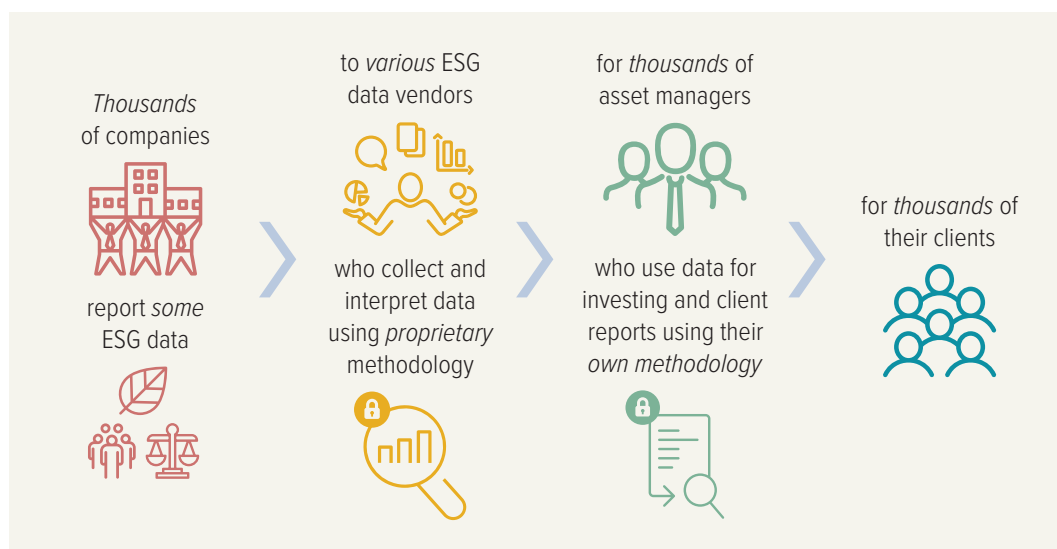


FIGURE 2 ESG data in the real world



Acting as a gatekeeper

As a leading responsible investor, Kempen is keenly aware of ESG data challenges. We neither doubt the difficulties faced by ESG data vendors nor disparage their work when it comes to assessing the credentials of a heterogeneous set of securities with limited disclosure... it's a tough business.

But we also set a high bar for any data, including ESG data, which enter our investment process.

We want assess how to process data effectively and reliably, and develop ESG scores in a way that addresses the current lack of harmonisation across the industry.

This whitepaper seeks to pinpoint what the challenges are when it comes to using high quality ESG data and thereafter present a few potential solutions. We will not single out any data vendor in particular, and, from our point of view, do not advise any investor to make decisions based on ESG data alone. We always recommend a combination of quantitative and fundamental analysis allied with an active management approach. It's an approach we call – The Real Active – which means data is always combined with a deep, intimate knowledge of our investee companies.

We hope that this document becomes a useful resource asset owners and managers seeking to apply ESG data scoring both now and in the future.

“It could take twenty years or more before we get ESG data perfect, and time is not on our side as we urgently move towards an equitable, just low-carbon economy.

Jags Walia, Senior Portfolio Manager and ESG Council Member

The challenges

This first section of the whitepaper lays out some of the challenges that we, as investors in Real Assets, face in the relatively new world of ESG data. As we encounter new data points and learn how to interrogate them, problems arise both in terms of cleaning the data and overcoming skews and biases.

In this section we outline some of the larger data challenges we come across, before explaining how we seek to harmonise them using the Real Assets investment approach, which combines quantitative and fundamental analysis.

Here we discuss the following issues:

- 1. Classification and the problems of a binary approach**
- 2. Estimates and modelling**
- 3. Looking through different lenses at the same thing**
- 4. Availability biases**
- 5. Addressing gaps in the data itself**

Let's enter the arena.

1. Classification and the problems of a binary approach

One of the easiest approaches for integrating ESG into an investment process is to use a minimum ESG score classification – assuming everything above that score is good, and everything below is bad. This approach over simplifies the issues, in several ways:

Nothing is black and white

Where a cost-benefit analysis of a product gives a more complete picture of a product's value to society, looking only at the cost itself provides an incomplete picture of the overall benefit.

Take a hypothetical around the use of inorganic fertilisers in agriculture. These fertilisers are often quite rightly deemed a 'bad' product because they leave residual levels of fertiliser in the ground, can pollute fresh water sources, and may cause algal blooms with detrimental effects. However, they also have a meaningful impact on crop yields and the resulting prices. Their overall benefit to society is that global agro-commodity prices are lower, which in turn leads to lower levels of starvation.

Opportunity cost

Although a common concept in business analysis, opportunity cost is yet to make significant inroads into sustainability data. When assessing a product's sustainability characteristics, the question is seldom asked 'what does this product replace?' in its impact assessment.

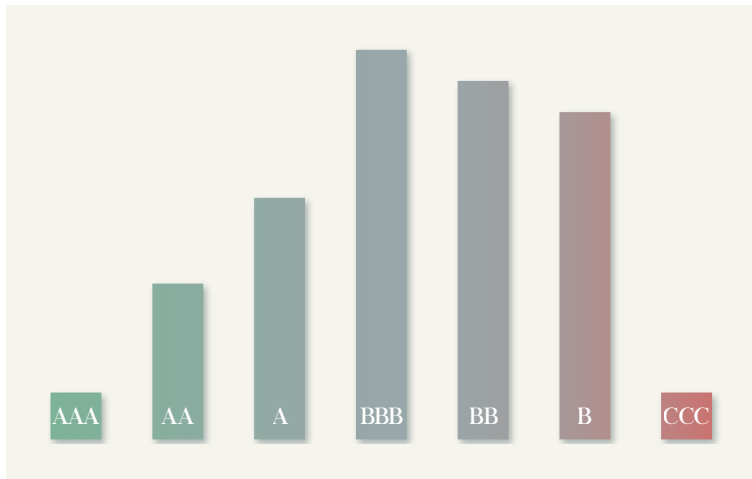
An example from the power generation sector could be natural gas, which is often excluded as a sustainable product given that it is a fossil fuel. Indeed there is considerable debate at the policy level around how to interpret natural gas in the EU taxonomy. What is rarely asked is, "what does this product replace?" And, "how does that impact sustainability?" Below we offer a case study to demonstrate this challenge (using a stock from the Infrastructure asset class):

The main consequence of oversimplification can be illustrated by the distribution of ESG scores from a data vendors in Fig 3 below. We see that there is a minority of companies that score very highly or very badly, and, as one would expect, most companies are in a grey area in the middle.

“Everything should be made as simple as possible, but no simpler”

Albert Einstein

FIGURE 3 Data Vendor ESG ratings



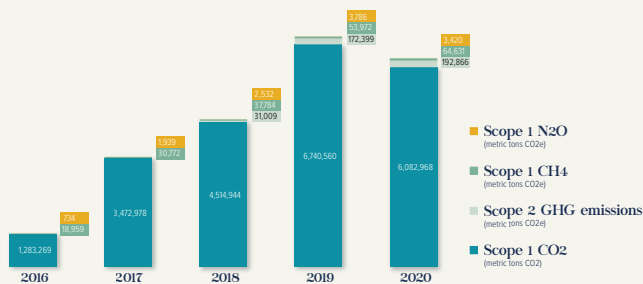
Rather than get lost in the muddled data, we in fact see a huge opportunity for our investment team here. It invites our data experts to perform more of a deep dive into a company’s sustainability impacts, and often will lead to our own override of ESG data vendor scores.

SCOPE 4 FOR A BETTER SCORE: CALCULATING OPPORTUNITY COST WITH CHENIERE ENERGY

Cheniere Energy Inc. is a US based LNG exporter. The company business model involves receiving gas from gas producers, cooling this gas until it becomes liquid (called liquefaction, turning gas into LNG), and then exporting it on purpose-built LNG vessels.

The company reports the following GHG emissions for Scope 1 and Scope 2: in total close to 6 million tons. Scope 3 emissions are not reported, but one estimate by a data provider comes in at 42.7 million tons.

FIGURE 4 Scope 1 and 2 GHG emissions



Source: Cheniere Energy Inc., 2020 CSR documentation. Emissions of CO₂, CH₄ and N₂O are reported on an absolute basis without GWP weighting as reported of the EPA under the GHGRP. Scope 2 emissions (2018-2020) are based on electricity purchased for use at major offices and operating sites using the location-based method per the GHG protocol Scope 2 guidance.

That's 48.7 million tons in total, as a rough estimate. This is a significant GHG footprint and is comparable to the numbers we see reported for large US utilities.

However, what we missed is the Scope 4 – what does this product replace? In other words, what are Cheniere's avoided emissions?

Let's take an example from Cheniere's export portfolio in March 2019. The company signed its third export contract to China, to supply 1.2 million tons of LNG per year up to 2043. Over a twenty-five year period, 30 million tons of LNG would be exported from the US to China on this one contract.

If we estimated the CO₂ impact of this contract by multiplying the volume of LNG by the estimated GHG of these volumes (which would in itself be a daunting calculation based on estimates of each moving part of LNG value chain, such as forecasting down to ship size and relevant fuel used for each ship), ***what we would miss is the impact the Chinese Coal to Gas transition policy.***

The Chinese government is pushing to replace coal with natural gas to aid its decarbonisation, and natural gas used in power generation typically produces less than half the CO₂ emissions of coal. This halving of CO₂ emissions facilitated by Cheniere Energy is not captured in estimates of the company's CO₂ emissions.

Taking a more holistic view – by asking for example, “*what does this product replace?*” – can lead to insights that justify overriding the raw ESG score provided by data vendors. As part of our process, each score override is recorded.

2. Estimates and modelling

We see estimates based on models everywhere in ESG data sets. For example, we find model estimates of revenue creation by product line, estimates of carbon intensity, or the extrapolation of partial data to an entire portfolio.

In Real Assets, for example, this might mean that partial data analysing real estate properties where there high number of relevant data points is applied across an entire portfolio. However, the portfolio may also include a number of properties which do not have the same availability of data.

The challenge here is that estimates based on models can be very different than full, factual data. In fact, we would argue that estimates are the enemy of good data which can be effectively and reliably integrated in the investment process.

3. Looking through different lenses at the same thing

When it comes to ESG data, are we being fooled by randomness? How much correlation is there between data providers' scores on the same companies? Depending on which data vendor we use, we may receive very different ESG scores for the same portfolio of companies rating their sustainability. This is in contrast to a more mature data arena, such as S&P and Moody's ratings on company debt, which has a much higher degree of correlation.

The example Fig 5 below plots a portfolio of companies' MSCI score against its GRESB scores. Both ESG data providers are reliable to an extent, but it is notable that there considerable discrepancies which lead to inverse correlation in scores.

FIGURE 5 ESG score – the eye of the beholder



The explanation for the above discrepancies in scores come from different ESG data providers looking for the same thing, but using different methodologies. For example, they may take a very different approach to analysing the CO₂ footprint of companies in a portfolio.

Where one data provider may focus on absolute or peer-relative CO₂, another may focus on CO₂ intensity, and using different measures of intensity (e.g. per unit of activity measured in actual quantity output, and conversely sales, which will have the products' price element included the calculation). These discrepancies make the outputs even less comparable.

We provide the following table as an illustrative example:

FIGURE 6 Key determinants of ESG Scores, by different data vendors

| Scores out of 10 (10 is most sustainable) | Company A | Company B |
|--|-----------|-----------|
| ESG Data vendor focus absolute CO ₂ | 1 | 8 |
| ESG Data vendor focus on CO ₂ intensity | 9 | 3 |

Therefore, if the first data vendor's methodology is more focused on absolute emissions, company B will score much better than company A. If however the data vendor's methodology focuses on the CO₂ emissions intensity, you could see company A score much better than company B. Drawing conclusions based on raw data inputs is therefore strongly influenced by the focus of the methodology.

4. Availability Biases

Often, ESG data relies heavily on public disclosure. This reliance on public disclosure is likely to prove challenging to smaller companies, regardless of their ESG credentials. In essence, transparency costs money.

For example, when we look at disclosure of CO₂ emissions by % of portfolio disclosed vs. company size, we note two things:

1. There is a much wider range of reporting outcomes for small and mid-sized companies (measured by asset value) vs. larger companies.
2. Given the expectation that larger firms would be able to report more comprehensively, there are two obvious outliers that become candidates for engagement on better transparency (show as red dots in the following graphic)

“It’s not what you look at that matters, it’s what you see.”

Henry David Thoreau

FIGURE 7 Disclosure vs Company size



The question must then be asked whether data providers are rewarding transparency for transparency's sake.

FIGURE 8 The more disclosure the better?



In the graphic immediately above, we see a slight upward bias with the following analysis: the more transparency a company offers, (here, we take percentage of portfolio reported on) the higher the ESG score awarded. Two explanations are offered: either a) the more transparent a company is, the better it is scored, or b) companies are self-selecting – those with better CO₂ footprints are more vocal. There also tend to be regional traits in ESG data disclosures, resulting in global equity portfolios having an ESG score that is biased positively to regions where there is more disclosure. This is opposed to where a company may actually be having an impact and reporting this impact through their own channels, but not specifically to an ESG data vendor.

Approaching geographical comparisons from a different angle, we shouldn't underestimate the challenge of conducting ESG data analysis on many thousands of companies across the globe. There is a need to reliably aggregate datapoints and attempt to compare like-for-like where possible. In the arena's early days, it is inevitable that data providers may have teething issues.

5. Addressing gaps in the data itself

Not every aspect of sustainability can easily be measured into easily comparable sets of numbers.

Net Impact

At the moment, the priority for ESG data vendors is around the measurement of climate risk, and making estimates around GHG emissions is the first critical step in the 'E' part. In the future, as we start to measurement of other risks and impacts – the S and G – we expect a new host of challenges when it comes to quantifying into a number.

When we take a more holistic approach to companies' sustainability impact, it may not make sense to 'net' the impact a company has. In terms of data, it is nigh on impossible to classify a company as operating responsibly based on one metric, or even by netting off positive vs negative scores.

For example a company lowering its CO₂ footprint but also committing human rights violations cannot be classified as a responsible operator, no matter how much CO₂ is reduced. In essence, there is no *exchange rate* in one sustainability measure against another.

Evolving company strategies

At the point where the data analysis starts, a key caveat must be considered in order to give an investee company its ESG score. Is the score based on a snapshot as it is in this point in time, or rather does it take into consideration the overall trajectory of the company over time?

If a company's CO₂ footprint is measured at a particular point in time, it fails to note the strategy or capex implications for CO₂ in future. Indeed, smart responsible investment might gamble that the latter is likely to be one of the most critical elements in the next decade.

This snapshot vs. trajectory dataset can be illustrated as follows: suppose a real estate investor has a strategy of buying up older office buildings, renovating and insulating the buildings to produce a more efficient product and selling them on. This is undoubtedly a good thing – no new concrete poured, and there is less energy consumption from the asset. However, the portfolio will stand out as having poor energy efficiency, as the assets are then sold after redevelopment. Moreover, ESG data providers cannot easily examine the actions of tenants thereafter since this information is held in confidence (and this may never change). Thus, without the context of their operations, a single figure around the real estate company's ESG credentials can be misleading.

There is an argument say that ESG datasets should move away from a tick-box culture towards a more holistic approach, gathering forward-looking data which takes into account evolving strategies. Moreover, snapshots may look fine at the point at which the data is gathered, but when something changes they become redundant. For example, BP was the most sustainably-rated oil major for the first quarter of 2010, but their rating based on a snapshot became irrelevant following the Deepwater Horizon incident in the Gulf of Mexico disaster in 2010.

We would advise that the key is to work with portfolio managers that fundamentally understand the business models and strategies of their investee companies, in order to provide forward-looking context for its ESG scores. Furthermore, for investors whose decision-making process integrates ESG data, an awareness of the above pitfalls is essential. Potential remedies to these are outlined in the next part of this paper by placing them into the context of the Real Assets class.

“Not everything that can be counted, counts.”

Attributed to Einstein

How the Kempen Real Assets team deals with the challenges

There are no easy solutions to these challenges, but at Kempen we have evolved some processes to help ensure that we 'see the wood for the trees' when it comes to understanding what ESG data is – and is not – telling us.

Our approach

At Kempen, the Real Assets investment approach involves processing large quantities of data to arrive at two key outputs – our company scores and our asset portfolio valuation. Both outputs are supported by our data analytics process, yet neither is purely systematic – our portfolio managers use this data to support our investment decisions, but the data alone does not drive the positioning.

ESG data is integral to both our company scores and our portfolio valuation. In the former, we incorporate MSCI data regarding governance and social aspects of the company as well as GRESB ESG performance scores, and in the latter we are incorporating measures of climate risk to our asset-level valuation framework.

Our framework differs from other asset managers. We do not have blanket bans on particular REIT entities and then trade freely in other names. The methodology naturally tilts our company scores to be higher in those entities with stronger ESG credentials, and all else being equal, this leads to a higher likelihood of an overweight investment in the stock but only when the market price is deemed attractive.

With our portfolio valuations, entities with assets more likely to be impacted by climate risk, as assessed by our data partner Munich RE – whether that be hurricane, sea level rises or earthquake – will be assigned higher capital expenditure expectations, as these assets will incur the significant costs necessary to protect them from nature impacts. The higher capex requirements leads to lower future rental growth potential, which ultimately lowers our valuation of the portfolio.


The outcome of lower company scores and lower portfolio valuations for poor ESG performers means that during portfolio construction we are naturally less likely to invest in these companies, and when we do, the stock would have to be deemed extremely attractive under our framework.

In essence we will not let our clients forego alpha opportunities, but we simply expect them to be less likely from those businesses that don't attend to their ESG credentials as they rightly should.

ESG data analysis by Kempen

Now, to the nitty gritty of our own ESG data analysis. As outlined above, the first issue we encounter is coverage – not all companies submit data to ESG data vendors. The reasons are varied, but it is worth reading the note published by Vonovia this year (see above case study) explaining their exclusion from the GRESB survey to understand the reasons are not always caused by a lack of resource or ill-will towards responsible investing. In those circumstances, our analysts will take a view on the company, having spoken to management and considering all the relevant disclosure, and incorporate this evaluation into our framework.

The second issue we encounter is poor quality data. No data point that enters our investment framework isn't subject to intense scrutiny, and ESG data are no different to any other part of the machine.



For example, we have seen carbon intensity data for two companies with very similar asset locations and ages, yet the modelled carbon intensity estimates are substantially different. In that event, we dig deeper to understand how this is anomaly possible, and where necessary, amend the data with a manual override.

The third hurdle is the context of a score. If a smaller market cap investment is finding it difficult to resource the necessary public disclosures or submission direct to a data vendor, but we know that the management are committed to ESG and indeed their salaries are aligned to it – we consider overriding an external score if we do not believe it reflects the facts on the ground.

All of the adjustments we make to our ESG data points are logged in our data infrastructure and we can then trace back to the exact justification for the manual override of the original data. This is another key component in the transparent nature of our investment process.

Conclusions and a look ahead

In the near future we expect both improvements to the overall quality of ESG data, and harmonisation across the arena. We neither doubt the difficulties faced by ESG data vendors, nor disparage their work when it comes to assessing the credentials of a heterogeneous set of securities with limited disclosure... it's a tough business as it stands.

Nevertheless, we expect to see four significant trends that will improve data quality and as asset managers will seek to support the movement in this direction where we can.

Standardisation

We cannot envisage a future where more and more data vendors provide separate survey processes with which companies must engage. The burden would become too much for an individual business to accommodate – and thus, whether through a process of consolidation of data vendors or alignment amongst the vendors, we expect that the data required for ESG analysis will be standardised over time. This will allow disclosure to be a one-off event for each company on an annual basis and the efficiency of engaging in a standardised framework will be much more attractive proposition.

Demand from Real Active managers

Investors, such as ourselves, will engage with the management teams of companies to press for greater disclosure and transparency about their operations and how they are aligning to the ESG agenda.

Regulation

As the theme of ESG continues to dominate conversation amongst political leaders and financial regulators, we would not be surprised if regulation forces greater levels of disclosure on the industry. TCFD and TNFD are both driving in this direction already.

External data validation

This is best expressed through an example. It is already possible to fly an aeroplane with thermal imaging capabilities over a real asset during cold weather to assess the thermal efficiency of the building. It will not be long until this same capability is available by low-orbit satellites. We expect that in the not too distant future, so no company will either have to estimate or calculate their asset thermal efficiency. There will be no hiding behind certificates or modelled data points, the building itself will be under the microscope by resourceful third parties.

Ultimately these trends will improve the underlying data that we can use to assess the ESG credentials of our investments and will close the gap between what the company self-reports, the information that is externally verified, and the assumptions made by individual investors.

All of the above justifies our approach – we use a limited subset of ESG data in our investment process and where we disagree with the assessment we will override the conclusions of the data vendor. It is worthwhile remembering that our analysts typically cover a far smaller number of stocks than any of our data vendors would and thus it is not surprising that we have a greater insight into any given real asset companies operations.

Because we set such a high bar for the data that enters our investment process, at this moment it means the majority of ESG data sets in their rawest, unclean form cannot and should not be integrated into our investment decision-making.

We are passionate about the importance of ESG and believe that harmonised data must be a key component in the journey towards our shared sustainable future. For this reason we are happy to report on ESG data sets that are available and by doing so will continue to champion the relevance of what is ultimately one of the most important issues of our times.

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