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Ethics or Physics?

Grappling with some big questions behind ESG integration

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Executive summary

A reliable and universal ESG scoring system for investments would be an invaluable tool for ESG decision making. So valuable that several providers are racing to get their systems widely adopted despite evidence that the approach is fundamentally flawed.

History is littered with analogous initiatives of limited value and in certain cases that did more harm than good. Before this algorithmic approach to ethical decision making becomes too deeply woven into the fabric of the financial system, it is worth asking some very searching questions.

The 16th century scientific revolution started a process that has revealed many of the great mysteries of the universe. Gravity, the structure of matter and the basis of life itself have all succumbed to scientific enquiry. Given the phenomenal power of the scientific method, it is unsurprising that the approach has been turned onto many pressing social questions of the day.

A recent example is a hugely ambitious series of projects to create a universal ESG scoring system for every investment security of importance; to create an ESG equivalent of the Celsius scale for temperature. ESG scores are created by algorithms which convert thousands of ESG data inputs, disclosed by a corporate or sovereign issuer, into a single output score with up to two decimal places of certainty. ESG integration, the systematic and explicit incorporation of ESG factors into portfolio construction, is far easier to implement and evidence with such a system. The idea is so appealing it is only a matter of time before these ESG scores are implicitly or explicitly incorporated into financial regulation. They are already being used to construct indices that are guiding asset allocation decisions.

As ESG scores become deeply woven into the fabric of the financial system, it is worth asking how useful they are likely to be? Ours is not the first generation to try to apply the scientific method to social questions. One largely forgotten example is hedonistic calculus, formulated by the utilitarian philosopher Jeremy Bentham in the early 19th century. Bentham proposed that morality could be measured based on the pleasure or the pain that an action caused. Following this logic he created a morality algorithm with seven inputs complete with units called hedons and dolors. Even Bentham's most ardent supporters concede that hedonistic calculus was not a significant milestone in the history of ethics, or anything else for that matter.

The entire project of ESG scoring and quantitative ESG integration only makes sense if there is an universal objective reality that can be mathematically explained, as is the case in questions of physics. Trying to answer complex dilemmas of an ethical character using an algorithmic scoring system seems doomed to a Benthamite failure. So are the questions ESG scoring systems are seeking to answer those of ethics, physics or maybe something else altogether?

ESG analysis as physics

Can ESG scoring be anything other than subjective?

Let us first explore the possibility that ESG analysis has a firm basis in empirical observation, therefore that it can be objectively scored. If that is the case then our early efforts are not going well. Studies comparing ESG scoring providers all highlight the very low correlation between them. Dimson and Marsh[1] give the following example.

> *"One of the most cited examples recently has been America's most valuable automobile company – Tesla. MSCI ranks it at the top of the car industry for sustainability, whereas FTSE ranks it as the worst car producer globally; Sustainalytics puts it in the middle. The discrepancy reflects that fact that MSCI judges Tesla to be almost perfect on carbon emissions because of its clean technology, whilst FTSE, which evaluates factory emissions, regards the firm as a serious offender."*

This lack of correlation between ESG ratings is not restricted to Tesla. Comparing different provider ratings systematically reveals a correlation that is close to random, evoking that well worn metaphor of chimpanzees throwing darts. It also opens up the possibility, indeed the likelihood, that investment managers are shopping around different ESG rating providers with the objective of purchasing whichever system scores them in the most favourable light, a.k.a. greenwashing. Does any of this matter? One answer to that question was articulated by the third century Greek doctor Hippocrates, who's medical oath starts with the phrase "first do no harm". The low correlation between ESG scoring systems suggests that using one or more of them would result in portfolios that do more harm than following a passive approach.

> ***"The low correlation between ESG scoring systems suggests that using one or more of them would result in portfolios that do more harm than a following a passive approach***

A dismal historical analogy can be found in the field of risk management and the development of Value at Risk in the 1990s. The then J.P.Morgan CEO, Dennis Weatherstone, asked his risk analysts to develop a single quantitative measure of the firm's financial risk that could be available within 15 minutes of the market close. Thus VaR was born and it quickly became adopted across investment banking, its quantitative construction giving it the veneer of scientific credibility. In 1999 VaR's systemic role was secured as it was incorporated into the Basel II Accord regulating the global banking system. However what VaR really provided was a false sense of security to managers and regulators, which encouraged a huge build up of risk within the banking system. That process culminated the catastrophe of the global financial crisis in 2008, with VaR almost proving terminal to the system it was designed to protect[2].

One common definition of the boundary between scientific knowledge and other areas of knowledge is that science needs to be capable of verification by testable prediction. ESG scores can be used to make very general predictions but not specific predictions of any value that could be effectively tested. That does not sound like physics. From our vantage point it seems extremely unlikely that ESG scoring could ever be considered a scientific project.

[1] ESG Investing – Credit Suisse Investment Returns Year Book 2020

[2] Risk Management – Joe Nocera, NYT 2009

ESG analysis as ethics

ESG scores are not absolute – instead they reflect the values of their creators

Most people at the sharp end of ESG decision making will have a strong intuition that we are dealing with the world of ethics; a series of subjective and context contingent questions to which the answers are a function of which value is considered paramount. From this perspective any ESG scoring algorithm is simply a mathematical expression of the ethical values held by its creator.

Consider the recent conundrum of research released by Sheffield Hallam University concluding that almost the entire global solar panel industry is implicated in the forced labour of Uyghurs and other Turkic and Muslim-majority peoples in China[3]. How does an ESG algorithm create a score to rate a solar power producer delivering zero emissions energy but with assets implicated in modern slavery?

In the growing market for business school ethics classes it is certainly possible to imagine students being asked the following question ~

> *You are the CEO of an energy Company, ABP Co. Your strategy is to sell all of ABP Co's fossil fuel production assets to focus on renewable energy. The only bidder for the production assets is a state backed group with lower standards of governance and lower environmental standards than ABP Co. Are principles of ESG investment better upheld by selling or retaining ABP's fossil fuel assets?*

What would your answer be? Before answering you might want to read the recent reports by the Commonwealth think tank and DeSmog which revealed that more than a third of the license blocks in the North Sea now have private equity or state-backed controlling interests. The Guardian reports "Fossil fuel firms from China, Russia and the Middle East are playing an increasingly dominant role. Unlike the oil majors, many of these companies do not face public scrutiny, are not accountable to shareholders and are not required to have the same degree of corporate governance as leading listed businesses"[4].

"ESG problem assets are simply being sold to the highest bidder… bidders with the lowest regard for problematic externalities

In the real world it is clear that ESG problem assets are simply being sold to the highest bidder, often meaning those bidders with the lowest regard for problematic ESG externalities. In a business school ethics class you could have a valid debate about whether a corporate that indulges in these types of detrimental disposals should see their ESG scores decline rather than improve, however that is not how simplistic algorithms work.

[3] https://www.sch.ac.uk/helena-kennedy-centre-international-justice/research-and-projects/allprojects/in-broad-daylight

[4] https://www.theguardian.com/business/2021/jul/29/foreign-control-of-north-sea-oil-licences-threatens-uks-net-zero-goal

ESG analysis as a commercial opportunity

A financial "wellness" product…

There is a real risk that the current iterations of ESG scoring systems represent first and foremost a commercial response to a commercial opportunity. This statement could be true, even if those involved in the creation of these systems are acting with good intentions.

One uncomfortable analogy is the Diagnostic and Statistical Manual of Mental Disorders ("DSM") published by the American Psychiatric Association. This pedestrian sounding publication, which seeks to classify mental disorders using standardised criteria, is amongst the most commercially significant books ever written. A DSM backed diagnosis is a pre-requisite for US health insurance funding for psychiatric treatments, mostly antipsychotic drugs, a global market valued at $22bn. Over the last 40 years the size and number of diagnoses in the DSM has grown exponentially, as has the prescription of antipsychotic drugs. It is alleged that the commercial interests of pharmaceutical companies have played a material role in this process[5].

… that could come with unpleasant side effects

These risks were foreseen. The 1980 edition of the DSM warned that the diagnostic system was so imprecise that it should never be used for forensic or insurance purposes. Sadly the commercial allure of a precisely defined system, including diagnosis and paired pharmacological "solutions", was just too overwhelming. And who would stand in the way of measures to tackle the mental health crisis? Today, the answer is many of the well-meaning psychiatrists that helped to create the system in the first place[6].

> ***With all these interests aligning, whether ESG scoring systems deliver real world benefits may be a secondary consideration.***

This analogy may not be perfect but should at least give those supporters of universal ESG scoring pause for thought. The leading providers of ESG scoring systems are data oligopolists with a huge commercial incentive to have their systems widely adopted. Financial institutions also have commercial incentives to provide quantitative evidence of ESG integration, both to market their financial products and to show they are fulfilling their public ESG commitments. Regulators and legislators are desperate to find frameworks that will help them to deliver their policy objectives. With all these interests aligning, whether ESG scoring systems deliver real world benefits may be a secondary consideration.

[5] David Healy. The latest mania: Selling Bipolar. PLOS Medical

[6] Bessel Van Der Kolk. The Body Keeps the Score

Why are we doing this again?

"The Commanding General is well aware that the forecasts are no good. However he needs them for planning purposes"

During World War 2, the Nobel laureate Ken Arrow led a team of statisticians tasked with creating long range weather forecasts to assist with planning for US bombing missions over Germany. After a time, Ken Arrow reviewed the accuracy of the forecasts and determined they were no better than pulling a prediction out of a hat. He wrote to his superiors recommending the end of the forecasting programme, a recommendation that was declined with the following reply - "The Commanding General is well aware that the forecasts are no good. However, he needs them for planning purposes."

It is quite clear that the early iterations of ESG scoring systems have similar value to Ken Arrow's long range weather forecasts. It may be that in time they will improve as data disclosure and modelling techniques improve, however it seems unlikely. ESG judgements are too complex and value laden to be incorporated into a universally applicable algorithm, however sophisticated the design.

This is not to dispute the value of investors collecting data, creating models and defining ESG criteria as essential steps in ESG integration decisions. However the value comes from deeply engaging in the subject matter, the output of any given model should be assumed to be of limited value, particularly when making cross category comparisons. For the time being there is no substitute for investors conducting their own detailed ESG due diligence and accepting that however objective they try to be that the decision is ultimately subjective. This approach may fall short of the scientific method but it makes more sense than making ethical decisions by algorithm.

Alastair Laing

Alastair joined CGAM in 2011, and has co-managed the funds since that date. Alastair joined CGAM from Hg Capital LLP (a pan-European private equity fund) and previously worked with the mergers and acquisitions team at Deloitte LLP. Alastair was educated at Edinburgh University and was an MBA Scholar at London Business School. He is a member of the Chartered Institute of Accountants of Scotland.

CGAM's approach to stewardship is governed by seven principles, one of which is that ESG decisions are ethical in nature and the most important of which is to Be Honest.

For more information of CGAM's approach to Stewardship and Responsible Investing please go to CGAM Stewardship Report 2021