

**Data Issues, Accountability, Audit, Ratings : Materials for Class on Thursday April 11**

We have already seen during this class that there are a number of issues about the availability, and accuracy/verifiability of climate data, and how the data are used. This matters for governmental policy-makers who need to assess what policies to adopt to address climate change, for businesses that need to manage their physical and transition risks, for investors, lenders and insurers and the financial system, and for individuals and families. As readings for this class session I am assigning one article that looks at issues of access to climate-related data,<sup>2</sup> and another article that discusses how accounting professional organizations developed work relating to climate change.<sup>3</sup>

We saw the concern for verifiability of climate information in the context of securities disclosures. The CFTC (Commodity Futures Trading Commission),<sup>4</sup> the US regulatory agency for the derivatives markets, recently asked for comments on its [proposed guidance on how designated contracts markets should go about deciding to list derivatives based on voluntary carbon credits.<sup>5</sup> Issues of transparency were significant:

“The Commission preliminarily believes that, in developing the terms and conditions of a VCC derivative contract, DCMs should also consider whether the crediting program for the underlying VCCs is making detailed information about the crediting program’s policies and procedures and the projects or activities that it credits, publicly available in a searchable and comparable manner. Making such information publicly available would assist market participants in understanding how GHG emission reductions or removals are calculated by the crediting program—including how additionality... is assessed—and how GHG emission reductions or removals are quantified. This would assist market participants in making informed evaluations, and comparisons, of the quality of the VCCs that underlie derivative contracts, which would help to support accurate pricing. Accordingly, information regarding the crediting program’s policies and

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<sup>2</sup> Annie Brett, *Information as Power: Democratizing Environmental Data*, 2022 Utah L. Rev. 127 (2022). The author is an alumna of UM Law and a Professor at the University of Florida.

<sup>3</sup> Heather Lovell & Donald Mackenzie, *Accounting for Carbon: The Role of Accounting Professional Organisations in Governing Climate Change*, 43:3 Antipode 704 (2011).

<sup>4</sup> <https://www.cftc.gov/>.

<sup>5</sup> CFTC, Commission Guidance Regarding the Listing of Voluntary Carbon Credit Derivative Contracts; Request for Comment, 88 Fed Reg 89410 (Dec. 27, 2023).

procedures for making program information publicly available may constitute an economically significant attribute of the underlying VCC that should be described or defined in the terms and conditions of the VCC derivative contract...

The Commission preliminarily believes that, in developing the terms and conditions of a VCC derivative contract, a DCM should consider whether the underlying VCCs represent GHG emission reductions or removals that are “additional”—in other words, whether the VCCs are credited only for projects or activities that result in GHG emission reductions or removals that would not have been developed and implemented in the absence of the added monetary incentive created by the revenue from the sale of carbon credits. Additionality is viewed by many as a necessary element of a high quality VCC: if a VCC does not represent emission reductions or removals that would not have occurred in the absence of the added monetary incentive created by the revenue from the sale of carbon credits, then the VCC will not serve a market participant’s goals of contributing to emissions mitigation.

Accordingly, as part of its contract design market research, a DCM should consider whether a crediting program can demonstrate that it has procedures in place to assess or test for additionality. A DCM should consider whether those procedures are sufficiently rigorous and reliable to provide a reasonable assurance that GHG emission reductions or removals are credited only if they are additional. If holders of positions in a VCC derivative contract understand and intend for VCCs that are eligible for delivery under the contract to be additional, but in fact they may not be, then the pricing of the contract may not accurately reflect the quality of the VCCs that may be delivered under the contract: the cheapest-to-deliver VCC, that otherwise meets the contract’s specifications, may not have additionality.

Given that additionality is viewed by many as a necessary element of a high quality VCC, information regarding a crediting program’s procedures for assessing or testing for additionality may constitute an economically significant attribute of the underlying VCCs, which should be described or defined in the terms and conditions of a VCC derivative contract.”<sup>6</sup>

Credit rating agencies, which assess the risk that a debtor will default on its obligations, assess climate risks relating to investments, but one study noted that users of credit ratings are not necessarily well informed about the climate-related credit risks:

“Despite the significant progress achieved in the disclosure around climate change in recent years (and around environmental, social and governance (ESG) considerations more generally), the authors find that the current level of disclosure does not allow a user of credit ratings to draw a definite conclusion on what

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<sup>6</sup> *Id.* at 89417 (footnotes omitted).

would have been the credit rating in absence of climate change risk. Transparency on definitions and assessment of climate change risk is at times not granular enough to extract an agency's assessment of a particular climate change factor. For most ECAIs<sup>7</sup> and asset classes, the current level of disclosure does not allow a user to conclude on the impact of individual climate change risk subcategories like transition risk and physical risk. The magnitude of the impact of material climate change risk on credit ratings is rarely disclosed, and similarly it is not fully clear how sectoral assessments inform entity-specific climate change risk assessments.

Three areas for possible further transparency are identified .... First, the authors believe that ... credit rating reports and/or press releases could be more transparent about both the definition and the assessment of the individual climate change risk factors within the environmental pillar. ECAIs could disclose (i) the individual climate change risk factors considered for the individual entity's creditworthiness assessments, (ii) the link between sectoral and entity-specific climate change risk assessments and (iii) whether the individual climate change risk factor was assessed as relevant to the credit rating and how it materially affected the creditworthiness of the entity's assessment for each climate change risk factor considered. Second, the authors believe that it would be useful if ECAIs could enhance their disclosure on the magnitude of adjustments to the credit rating (or its methodological factors/sub-factors) stemming from material climate change risk. ECAIs could present such information (i) in each credit rating decision where an adjustment was applied and, (ii) showing where in the rating methodology such adjustment was applied (as climate change risk is one of the aspects considered in it). Third, the methods and models used for the climate change risk assessments could be further explained. ECAIs could elaborate further, either within the environmental, social and governance assessment criteria or within the credit rating methodologies, by describing the models and methods used to assess climate change risk and outlining the data input and sources used.

EU regulators could consider requiring more granular disclosure by rating agencies on climate change risk and their incorporation into credit ratings. Such granular disclosure requirements could be informed by the three areas for improvement identified in this paper. However, it would need to be considered how such improvements could be made compatible with the individual methodological approaches used by the rating agencies to preserve their methodological independence.”<sup>8</sup>

ESG Ratings also involve issues relating to data. The EU institutions recently reached

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<sup>7</sup> External Credit Assessment Institutions.

<sup>8</sup> See, e.g., Miriam Breitenstein, Stefania Ciummo & Florian Walch, *Disclosure of Climate Change Risk in Credit Ratings*, European Central Bank Occasional Paper No. 303 (Sep. 2022) at 3-4.

agreement on a regulation for ESG ratings agencies,<sup>9</sup> which contains exclusions for many ESG related assessments, such as ratings provided by non-profit organizations for non-commercial purposes and ratings produced for non-commercial purposes by individuals such as academics and journalists.<sup>10</sup> Ratings methodologies should be “rigorous, systematic, independent, continuous and capable of justification,”<sup>11</sup> and ratings providers should disclose details about their methodologies, models and key rating assumptions to the public and to users of the ratings.<sup>12</sup> While aiming to “enhance the availability, quality and consistency of ESG requirements across the entire value chain of financial market participants, which should contribute to the continuous improvement of the quality of ESG ratings,”<sup>13</sup> the Regulation “should not interfere with the ESG rating methodologies or content” because “[d]iversity in the methodologies of ESG rating providers ensures that the broad requirements of users can be met and promotes competition in the market.”<sup>14</sup>

We have seen that in securities disclosure, issuers are being required to disclose some amount of information about greenhouse gas emissions. This is based on assumptions that disclosure will help the markets assess what progress businesses are making in reducing emissions, on the basis that reductions will help to mitigate climate change. But our assumptions may be wrong. A recent report from the UK Institute of Actuaries argues that climate risk should be conceptualized as a problem of Planetary Solvency, where we should “have a best guess about the worst-case and make policy on that basis.”<sup>15</sup>

The authors write:

“Actuaries cannot predict the future, but at the core of our expertise is analysis of data to understand the range of uncertainty around future assumptions, considering the risks and worst-case scenarios. Our advice informs the level of

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<sup>9</sup> Huw Jones, *EU Agrees its First Ever Rules for ESG Raters in Sector Shake-up*, Reuters (Feb. 6, 2024).

<sup>10</sup> Proposal for a Regulation on the transparency and integrity of Environmental, Social and Governance (ESG) rating activities, Confirmation of the final compromise text with a view to agreement: legal text (Feb. 9, 2024), Recital 15e and 15f.

<sup>11</sup> *Id.* at Recital 20.

<sup>12</sup> *Id.* at Recital 21.

<sup>13</sup> *Id.* at Recital 21b.

<sup>14</sup> *Id.* at Recital 21c.

<sup>15</sup> Sandy Trust, Oliver Bettis, Lucy Saye, Georgina Bedenham, Timothy M. Lenton, Jesse F. Abrams & Luke Kemp, *Climate Scorpion—The Sting is in the Tail*, Institute and Faculty of Actuaries & University of Exeter (Mar. 2024), at 5.

activity and urgency required to avoid them. We explore scenarios that could have the greatest impact, even if the probability is low or cannot be readily quantified. We are concerned with protecting against the ‘risk of ruin’. Reverse stress testing is a process where actuaries think about circumstances that would cause insolvency, so that they can take action to avoid this. This approach can valuably be applied to climate change. As well as thinking carefully about what to expect and sources of uncertainty, we can also explore the ‘risk of ruin’, the point beyond which our global society could no longer successfully adapt to climate change. We coin the phrase ‘Planetary Solvency’ to explore how society could adapt actuarial techniques to manage these risks more effectively....

Actuaries have played a significant role in enabling critical societal services such as pensions and insurance to allow society to function in the short and long term. We want pension schemes to be able to pay out pensions many years into the future. We have an equally important responsibility now to play an active role in addressing the sustainability challenge. Our long-term thinking, financial system understanding, risk management mindset and probabilistic reasoning combine powerfully to complement climate science and communicate risks clearly to regulators and policymakers....

Actuaries have developed techniques for a range of risks, from low frequency/high impact catastrophic risks (tail risks) to those covered by mass market products, such as motor and household insurance. These techniques include modelling systems failure, modelling both natural catastrophes (e.g. hurricanes, flooding) and man-made catastrophes (e.g. terrorism), modelling scenarios (such as a run of claims and stock market crashes undermining an insurance company), and undertaking holistic risk assessments for banks. These risk assessments inform management about actions to take to manage risk, both in the short and long terms...

If we approach climate change from the perspective of financial solvency, the goal would be to limit the probability of a very bad outcome to an acceptably small value. In other words, the tail of the probability distribution would drive climate change policy, and the first question would be “how bad could it get”? This is the question that is asked when an insurance company models its capital requirements. An insurance company needs to be able to withstand the uncertainty of severe events. Under the European Solvency regime, the probability of failure is set at 0.5% or, put another way, insurance companies are required to hold enough capital to survive an unlikely but possible 1-in-200 year set of adverse events. Society as a whole might reasonably expect a similar standard for climate change and other risks that are faced.”<sup>16</sup>

Groups of professionals whose work relates to finance, such as accountants and actuaries, see the relevance of their work to climate change, to policy responses to climate change, and to

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<sup>16</sup> *Id.* at 6, 10, 11.

implementation of those policy responses. And, for these professionals, developments in climate finance create new professional opportunities. But we also need to note that there are other groups which have a rather different attitude to the idea of data about climate change, and dedicate significant resources to challenging the science relating to climate change and policy responses to address climate change.<sup>17</sup>

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<sup>17</sup> See, e.g., Climate Action Against Disinformation, Deny, Deceive, Delay (Vol 3): Climate Information Integrity Ahead of COP28 (Nov. 29, 2023); Center for Countering Digital Hate, The New Climate Denial (Jan. 16, 2024).