

# Challenges for "Climate Related Finance Disclosure"

2016/06/27

Opinion

**Hiroyuki Tezuka**

 Senior Researcher at the International Environment and Economy Institute  
 Global Climate Group Leader, JFE Steel Technology Planning Division

## Introduction

It has become commonplace for companies to issue CSR Reports and Environmental Reports alongside their annual financial reports to stakeholders to disclose information and facilitate understanding about environment and sustainability in recent years. Further, newly introduced concepts such as Carbon Disclosure Project and Scope3<sup>1</sup> that relate to information and data disclosure ranks corporate sustainability, separate to their financial grading, based upon their scope and depth of disclosure.

As an extension of this line of corporate disclosure, there is a new global initiative underway to disclose Climate Change Risks from a financial point of view in terms of corporate business activities. The paper presents an overview of the Taskforce on Climate Related Financial Disclosures (TCFD) and discuss its problems and challenges from the standpoint of Japanese industry.

## Overview of the "Taskforce on Climate Related Finance Disclosure" <sup>\*2)</sup>

The G20 Finance Ministers and Central Bank Governors Meeting held in April 2015 demanded the Financial Stability Board (FSB) to examine the impact of climate change on the financial sector. Behind this development was concern for greater natural risks (e.g. disasters and health hazards) arising due to progressive global warming leading to greater economic loss. There is a rising current of conversion to clean energies and limitation on usage of fossil fuels that emit greenhouse gases as a countermeasure to this issue and people are pointing out that fossil fuel related assets (mining interests and power plants) will become debased and stranded, and there is awareness of a myriad forms of potential risks emerging. A symbolic example of this phenomenon is the world's largest coal company, Peabody Energy (Missouri, US) which faltered under its debts exceeding 1 trillion yen, and applied for a chapter 11 rehabilitation bankruptcy in April this year.

In response to this demand from the G20 summit, the FSB has prioritized visualization of financial impacts that climate risks bring to the market as the first order of business and put forward a Task Force on Climate-related Financial Disclosure comprising private experts chaired by ex-New York mayor Michael Bloomberg to be established in December this year. By the end of 2016, this task force aims to identify advanced initiatives to improve consistency, accessibility, clarity and usefulness of climate change related financial reporting (CDP or Scope 1~3 private-sector led disclosure systems and other forefront cases were being assumed, for example) and advocate for and set guidelines on voluntary disclosure.

The background to this disclosure being *voluntary* is the perception of risk in forced disclosures by regulatory authorities to incite evasive practices by some companies, and the expectation that the role of a referee for the entire society will entice good practice by drawing out the initiative and creativity of companies to nurture a positive cycle.

## Current Status of Examinations by the TCFD

The scope of examination by the TCFD is focused on 4 major domains. The first is "Climate Change-related Financial Risks and Opportunities." The current recommendation is to consider differences in region or business type to identify the need to evaluate "physical risks" of climate change (e.g. change in agricultural yields due to natural disaster and change in weather patterns -- for which there are both risks and merits) and "non-physical risks" (e.g. obsolescence and change in consumer trends accompanying policy, legislative or technological innovation -- these also carry risks and merits). "Corporate governance" is the second domain. The recommendation is to highlight the awareness and evaluation on climate change by the board of directors or the top management in the mainstream

financial report. The third is “Target of Information Disclosure”. The current assumption in TCFD is to include listed companies, entities issuing corporate bonds and the financial sector as well as non-listed companies that meet certain criteria. The fourth domain is “Information for Disclosure”. That is to ask companies to disclose quantitative information that can be individually analyzed by the user and should incorporate governance including transition strategies to a low-carbon society. Those issues in 4 major domains are being discussed to be included in the report.

The TCFD Phase 1 Report issued in the end of March<sup>\*3</sup> has added 7 Fundamental Principles to the above points, and this was received favorably at the FSB General Meeting.

1. Present relevant information
2. Be specific and complete
3. Be clear, balanced and understandable
4. Be consistent over time
5. Be comparable among companies within a sector, industry or portfolio
6. Be reliable, verifiable and objective
7. Be provided on a timely basis

The TCFD will formulate the guidance on disclosure by the end of the year. As the reporting authority, the FSB, is an international regulatory authority that supervises financial services, the movements of TCFD requires attention and the financial disclosure framework that is likely to be internationally introduced based on this report will have wide reaching impacts on corporate activities. To follow the ongoing debates by TCFD and to input of the opinion as necessary from Japanese companies, especially in the industry as the disclosing parties, will be crucial as this will have great impact on their business and management. Upon release of the Phase 1 Report, a public comment was issued requesting opinions, evaluations and comments from the wider scope of stakeholders (from April to the end May 2016) and it appears some companies and industrial organizations from Japan have submitted comments. There is likely to be a call for input through public comments or other means during the drafting stage leading up to the final release of the Phase 2 Report, so it is crucially important to submit opinions and comments from a wider range of perspectives.

- \*1) The Carbon Disclosure Project (CDP) is a private initiative that seeks corporate disclosure of greenhouse gas emission data and Scope3 is a method for assessing environmental impact across the entire value chain, put forward by the GHG protocol.
- \*2) As of this writing, I would like to take this opportunity to state my gratitude for the numerous advice given by Masaaki Nagamura on activities and initiatives. Mr.Nagamura is the Head of the Corporate Planning Department at Tokyo Marine Holdings, and the sole Japanese participant in the task force as a committee member.
- \*3) <https://www.fsb-tcfid.org/phase1report/>

## Concerns Regarding Climate-related Financial Disclosure

Based on the activities of the TCFD noted above, this paper aims to comment on concerns and challenges perceived by the author regarding the move to formulate the Climate-related Financial Disclosure system.

### 1. Climate Change Risk is Largely Uncertain

In the Paris Agreement issued by COP 21 in December 2015, the global agreement was reached to keep “the increase in global average temperature well below 2°C” and also “to aim to limit the increase to 1.5°C” compared to pre-industrial standards. The Fifth Assessment Report from the IPCC (2014) has stated there is no doubt that global warming is human induced = caused by emission of greenhouse gases, and clarified its position that it refutes any denial or skepticism toward climate change. There is growing awareness that global warming is a real crisis facing the world and accompanying risks ought to be taken as material and reflected in economic activity, and that financial and investment activities should promote a transition toward a low-carbon society.

Certainly, with CO<sub>2</sub> levels in the atmosphere have exceeding 400ppm<sup>\*4</sup> and the increasing frequency in extreme weather conditions and related disasters have led to the recognition that global warming is no uncertain incident and a true and encroaching threat. However, digging deeper into the IPCC report

shows that there is still uncertainty regarding the climate change issue, and the uncertainty seems to be growing as knowledge is accumulated. The IPCC Fifth Assessment Report discusses equilibrium climate sensitivity, an index for how many degrees the global temperature will rise on average when greenhouse gas (GHG) concentrations rise to twice the level comparing before the industrial revolution (550ppmCO<sub>2</sub>eq) and then stabilizes. The estimated figure is 1.5°C to 4.5°C showing a one to three scale variance, (to be accurate, there is deemed to be a 66% chance that climate sensitivity will be contained within this range).

This represents a greater uncertainty compared to the IPCC Fourth Assessment Report (2007) which stated the climate sensitivity estimation of 2.0°C to 4.5°C. Also, the Fourth Assessment Report stated the best estimate of the climate sensitivity was 3.0°C and this generated the base for measures (limitation criteria for CO<sub>2</sub> levels) to achieve 2°C increase target (2°C target was interpreted to be equivalent to 450ppm), but there is still no consensus among scientists on whether to lower the the best estimate of climate sensitivity to be 2.5°C in relation to the downward expansion of uncertainty in climate sensitivity estimates in the Fifth Assessment Report. (therefore, IPCC’s Third Working Group which handled climate change measures in the Fifth Assessment Report reportedly used a *tentative* best estimate of 3°C, but such backgrounds are not explained in the Summary for Policy makers.<sup>5</sup>) If climate sensitivity is assumed to be larger, the CO<sub>2</sub> level criteria for limiting temperature increase becomes lower, then as a result, requiring more far reaching challenging mitigation measures.

The political significance of the 2°C target in the Paris Agreement is great, but considering the still remaining uncertainty on climate sensitivity stated above, one can take the 450ppm index is not absolute, as generally accepted, as a GHG level mandate for achieving that target. In fact, a closer look at the details of the IPCC Fifth Assessment Report shows the possibility that temperature increase can be contained within 2°C limit at wider range of GHG levels, between 430ppm and 530ppm. (Figure 1). Therefore, there is still great uncertainty about how much GHG emission restriction is needed to keep global temperature rise within 2°C. The recent observations of atmospheric CO<sub>2</sub> levels from Hawaii and Japan has already exceeded 400ppm, and the levels are said to be rising at about 2ppm per year. When one adds GHG levels other than CO<sub>2</sub>, the current GHG level is already deemed to be 420ppm, and the threshold level for 2°C, 430ppm, will be reached in a mere 5 years according to this calculation, so measures taken by 2030 may be too late. On the other hand, if the threshold is 530ppm, there is still a 50 years allowance until we reach the threshold even if current level of emission increase continues, meaning we can take the time to pursue technologically innovation strategies to develop and disseminate next generation clean energy technologies rather than forcing through fossil fuel restrictions and hasty decarbonization measures regardless of cost associate with those.

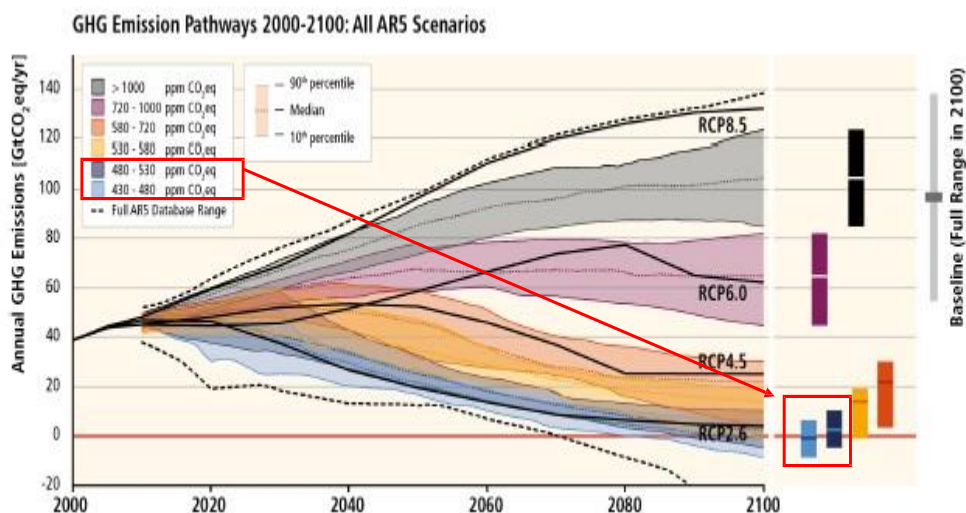


Figure 1. GHG emission scenarios and temperature increase paths

(Source: IPCC Fifth Assessment Report WG3 SPM)

On the other hand, the IPCC Fifth Assessment Report shows that societal risks and damages brought on by the global warming will continually arise according to probability distributions, so it is not as if 1.9°C is safe and 2.1°C brings on catastrophic events, so herein lies another great uncertainty. Quantitative risk assessments such that, global warming will cause X billion dollars by the year XXXX, must be calculated based on a very simplified assumptions on the great uncertainties accompanying *the relationship between GHG levels and temperature increase and environmental impact risk accompanying a rise in temperature levels.*

Based on this scientific reality, if one attempts to quantitatively assess climate change risks associated with specific assets or businesses of an individual company from a financial prospective, these calculations are of a nature that requires boldly simplified assumptions and intentionally decisive calculation. Reporting and evaluation of climate change risks also must be carried out based on this notion by the reporting body and the assessing financial institution alike. Also, risks calculated for individual companies based on these simplified calculations must be handled with ample recognition that, when deeper and diversified scientific knowledge become available and environmental changes actually occur in the future, those will change the assumptions for the calculation and drastic reviews and reassessments may need to occur. One could further say that while it is rational to project the maximum levels of risks to raise caution to the governments and the society based on preconditions and hypotheses that assume the *worst case scenario* to be on the safe side. But these intentionally risk focused prejudices may exaggerate risks borne by companies. Considering the real economic damages imposed on individual companies and shareholders due to the exposure to such *intentionally exaggerated* risk assessments, once such risk exaggeration comes to light, there may be a need for compensatory measures for such instances.

- \*4) The Japanese Bureau of Meteorology has reported on May 28<sup>th</sup> that annual average atmospheric CO<sub>2</sub> concentration levels measured in 3 observatories across the nation has recorded an all-time high, and 2 locations have recorded an excess of 400ppm for the first time.
- \*5) The IPCC report is often quoted as “request by the science,” and is seen to be the consensus among scientists worldwide, but it is actually an Intergovernmental Panel on Climate Change, and the editing work is not carried out solely by scientists, but also involve various parties affiliated to the government of each nation. Especially, the statements contained in the Summary for Policymakers (SPM) strongly reflects the intentions of governments that hold strong claims on the issue. These political processes are publicly critiqued by Professor Robert Stavins (Harvard University), a lead editor of Working Group 3 in the IPCC, stating “The SPM is in fact a Summary by Policymakers.”

## 2. The Definition of Stranded Assets is not Fixed and Dependent on Assumptions

Since the Paris Agreement clarified the objective, “to undertake rapid reductions to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century,” discourse on prohibiting the use of fossil fuels, especially the use of coal; the largest CO<sub>2</sub> emitter, in the long-term originating from environmental NGOs, is gaining popularity around the world. If we follow these propositions, the use of coal must be globally prohibited in some form or another and become unusable as fuel, thereby devaluing business assets related to coal resources and companies holding such assets as well as financial institutions putting investment on such companies shall bear the risk of stranded assets.

Behind this idea is the recognition (hypothesis) that the coal prices would rise due to the levy of a carbon price to cope with global warming is inevitable, and on the other hand, that solar, wind and other clean, renewable energies would become more cost competitive, thereby debasing the value of coal assets.

When we take a look at the reality in the society on the other hand, cost of renewable energies, such as solar and wind, is surely becoming lower but the cost remains higher relative to fossil fuel energies like coal, despite subsidizing policies like the feed-in-tariff (FIT) system is becoming the norm.<sup>\*6</sup> In Europe, where FIT subsidy policies have been used to promote prevalence, electricity prices spiked due to enlarged FIT levies from the spread of renewables. There are cases where governments buckled under the pressure from the burden bearing consumers and were forced to reduce or take back the subsidy policies such as FIT.<sup>\*7</sup> As a result, there are cases where renewables-related assets (power generation businesses and solar panel businesses etc.) suddenly plummeted in value and were forced to go into bankruptcy



(=become stranded assets). In reality, operating solar power, wind power and other new business models based on renewables have prospects for growth in the long run, but are easily affected by such policy changes and fickle demand; former global top players in solar and wind power – e.g. Q-Cells, Suntech Power, SunEdison, Vestas – have faltered one after another, and cases abound where the capitals invested in such companies become debased.

Turning our eyes back on coal power, there was a chance to have a discussion between the delegation from Indian Chamber of Commerce and the heads of Japanese industry (Keidanren) at the Paris COP21. I questioned the representatives of Indian industry on global pressure placed on the use of coal power, and the representative replied, “India has hundreds of millions of citizens with still no access to electricity; providing stable and inexpensive power to this vast population is a prime imperative for the nation. There is no option for India where we do not use the rich domestic coal reserves. Also, the energy needed to industrialize India cannot be procured solely from renewable energies that lack in density and stability. We cannot accept the claim that ‘do not use coal.’ If they say to us that ‘use it wisely and efficiently,’ we can accept that claim. We strongly hope to have a cooperative relationship with Japan for the transfer of highly efficient thermal power technology.” Recently, I had a separate occasion to meet with a person affiliated with the Indian Government and received similar comments, confirming the stance of both private and public sectors in India.

In regards to whether renewable energies, coal and other specific technologies or resources will become stranded assets, what we must consider here is not the results of market competition under ordinary economic activity, but that these depend on national and regional public policies where the businesses take place (i.e. subsidies and regulations). The point is that a policy change may make otherwise healthy business assets stranded overnight, and vice versa. Especially, levying an artificial carbon price on fossil fuels to diminish its market competitiveness against other energy sources to artificially create stranded assets creates short term pain for the society in the form of energy costs, and on the other hand, policies to give renewable energies a leg-up through subsidy expenditures will also create a spike in energy costs for the entire society, so both are not sustainable policies which can be sustained forever in a free market.

On the other hand, in the case that brought to attention the possibility of coal assets becoming stranded, the bankruptcy of the largest coal resource company in the world (Peabody applied for rehabilitative bankruptcy on April 13<sup>th</sup>), the cause plummeting business was not restrictions on the coal business due to global warming measures, but decline in steel production due to the slowdown of the Chinese economy and the subsequent nosedive in coakingcoal demands. Adding to this short-term market factor was the shale gas revolution, a technology innovation that caused gas thermal power to outcompete coal power in the US causing a structural reduction in coal demands. So at least in this case, coal assets were not stranded due to the climate change issue.

It is inevitable that technology innovations (e.g. the shale revolution) force traditional technologies (e.g. coal power) to lose its competitive edge. On the other hand, the value brought on by new technologies (energy supply at a lower cost than before) enhances the general welfare of society, so even if coal asset owners become less profitable, society is likely to condone the situation. Fossil fuels are going to be stranded when—and only when—technology innovation provides a safe and stable means to supply energy at a lower cost than fossil fuels.<sup>8</sup>

### 3. Need for a Life Cycle Assessment Perspective

It goes without saying that corporate activity is carried out within a long and dynamic supply chain and value chain. Individual business activities are only carrying out a minute portion between the top of the value chain (e.g. extracting raw materials) and the bottom-end (e.g. merchandise distribution, marketing and recycling). Therefore, assessment of individual corporate activity is only carried out within that limited business boundary in the value chain.

My understanding is that the TCFD is trying to examine the issues of negative externalities occurring outside of companies’ business boundaries in the global environment, such as GHG emission as a result of corporate activities, and to include the assessment of business activities and assets of companies. On the other hand, it does not necessary seem to always clearly recognized that there are positive externalities that is ultimately brought to the society through products and services which are provided downstream in the value chain as a result of its business activity. In other words, here are *positive externalities* from a lifecycle perspective.

I work in the steel industry; an energy intensive industry that produces steel products while emitting large volumes of CO<sub>2</sub>. However, the highly functional high-tensile steel plates from the steel mills greatly contributes to producing lighter automobiles and ships to improve fuel efficiency (energy savings) so these CO<sub>2</sub> intensive steel products ultimately used in the market are contributing to the society in reducing CO<sub>2</sub> emissions. Similarly, high efficiency electromagnetic steel plates produced in Japanese steel mills, greatly contribute to mitigating transmission loss in power transmission systems as well as reducing energy consumption of motors, creating *positive externalities in the use phase*. A calculation on selected 5 iconic Japanese high functional steel products using the Lifecycle Assessment method showed that 7.3 million tons of steel materials produced in Japanese mills in FY2014 contributed to reducing 26.6 million tons of CO<sub>2</sub> annually when used in society.<sup>\*9</sup> Since producing each ton of steel products emits about 2 tons of CO<sub>2</sub>, this means that 1.5 million tons of CO<sub>2</sub> was emitted to produce those 5 high function steel products, but the same steel products contribute to reduce far much more 2.5 million tons CO<sub>2</sub> emission when they are used by consumers in the downstream of the value chain.

Focusing just on the fact that a steel mill emits larger amounts of CO<sub>2</sub> from inside the boundary of the site would create the perception that the mill bears a climate change risk and put some kind of restrictions or extra burden on business activities related to the mill's steel manufacturing. However, this will limit production of high performance products that benefit the environment further downstream in the value chain and may result in greater global emissions in the long term. Also, if such restrictions constrain corporate revenues, this will rob the management resources allocated to research and development of high performance steel products with anticipated environmental benefits when used, ironically enlarging climate change risks for the society as a whole.

If the new methodology for corporate valuation by the TCFD assesses environmental impact by corporate business activities as *negative externalities*, positive contributions (positive externalities) provided by products brought to the entire value chain that bring about positive contributions to the global environment should also be properly quantified and assessed, then combine the positives and negatives to assess the *net environmental impact*; otherwise, we cannot produce a comprehensive assessment of climate change risks associated with business activities.

Especially, if we request reporting that focuses solely on carbon emissions and natural resource consumption of factories from industrial sectors that lies in the interim stages of the value chain that produce materials and parts, the real environmental contribution brought to the entire value chain will be missed, creating a biased report and may generate unanticipated negative results for the entire societal system. When disclosing and reporting climate change-related risks, in addition to focusing on direct environmental impact within the boundary of production activities, a perspective that goes beyond individual business boundaries to provide an environmental impact assessment covering the entire value chain from a lifecycle assessment perspective is necessary.

\*6: "Siemens, US General Electric (GE), and 11 European electric power giants have issued a projection on June 6<sup>th</sup>, that the cost of offshore wind power generation in Europe will be on par with conventional thermal power by 2025. The European coast has many areas with expansive shallow areas that are suited to offshore wind turbines and 90% of the world's offshore wind power is concentrated in the region. The companies made requests for support from various European governments while aiming to hone their competitive edge as a trump card for reducing CO<sub>2</sub> emissions based in Europe." (The Nikkei, June 7, 2016) In other words, despite lower wind power costs, they still admit that proliferation of wind power is not possible without subsidization.

\*7: Germany has often been cited as a precedence for FIT. On June 8, the German government issued a statement to abolish its FIT system in 2017.

\*8: *The Vital Spark; Innovating Clean and Affordable Energy for All*, issued by the London School of Economics Mackinder Programme in 2013 states, developing innovative technologies that provide clean energy that is cheaper and more stable than conventional fossil fuels provides a true solution to the climate change issue.

\*9: Report on the 2014 Results of the Commitment to a Low Carbon Society, Japan Iron and Steel Federation, P28.

([http://www.jsf.or.jp/business/ondanka/kouken/keikaku/documents/keikaku\\_gaiyou.pdf](http://www.jsf.or.jp/business/ondanka/kouken/keikaku/documents/keikaku_gaiyou.pdf))

#### 4. Difficulty of Comparing Environmental Impacts across National Borders

As stated above, one of the 7 Fundamental Principles of the TCFD is to “be comparable among companies within a sector, industry, or portfolio,” but there is a great deal of difficulty when putting this to practice.

Corporate business activity results are already reported and disclosed in accordance with the various rules and legislation in the nations, regions or municipalities where the business activity takes place. Such reportings include GHG emission and other climate change related data. In Japan major companies are required regular reporting on detailed results data including GHG emissions and energy consumption in accordance with the Global Warming Countermeasures Act, the Energy Conservation Act and other legislations. These legislated reporting systems provide detailed rules to specify what emission factors should be used for calculation and what calculation formula should be used. The data disclosed by Japanese companies in their CSR reporting are also based on such public reporting rules as a common rule, so comparing results between companies in the same sector is relatively easy and fair.

There are many countries and regions, such as EU, that request periodic reporting of GHG emission data similar to Japan, but the calculation methods and emission factors used for the calculations are varied in each country and regions, so a result emission data from a similar business site may report different figures by nation or region. So in reality, comparison across nations or regions remains impossible unless the rules are strictly aligned to be common among nations.

For example, in the steel industry, the EU has adopted a emission trading scheme; EU-ETS. EU-ETS based emission calculation method does not count CO<sub>2</sub> emission associated with electricity as emission by the steel mill, when the electricity is generated in a power station outside of the steel mill and purchased by the mill. This is because the emission trading scheme simply regulates CO<sub>2</sub> produced within the boundary of the factory site. On the other hand, calculation methods in the Japanese Global Warming Countermeasures Act uses a specific emission factors to calculate CO<sub>2</sub> emissions associated with electricity purchased from outside of the steel mill and the number is added to the CO<sub>2</sub> emissions of that steel mill to assess the real efficiency of the mill. Using those two different calculation methods based on different philosophy, exactly the same steel mill would end up being calculated different emission volumes depending on whether it sits in the EU or Japan.

Furthermore, Japan and the EU have legislation that obligates companies to produce detailed reports on CO<sub>2</sub> emissions using pre-determined (though different) methodologies, but in nations and regions without such public reporting systems, the details on calculation methods for GHGs disclosed in corporate CSR reporting is not always clear, so though they may both be called CO<sub>2</sub> emissions, they cannot be compared as equivalent data. Or, if international data disclosure is to be required for companies based on the recommendations of the TCFD in the future and if companies commence disclosure in nations and regions where there is no public reporting duties, without a common provision on the calculation methods and emission factors used, there will always be suspicion that companies intentionally use calculation methods that favor its own circumstances.

In terms of ensuring comparability between companies on environmental impacts brought on by business activities, economic activity is becoming increasingly globalized and comparing business entities within a specific nation or region no longer carries meaning for sectors like the steel industry where the majority of products are traded internationally. CO<sub>2</sub> emitted from any steel mills has the same impact on global warming whether they be in Japan or China. Unless a results reporting system that covers the entire world can be built upon an agreed calculation method and emission factors that is standardized across the world, proper comparison between companies would not be possible. In the current state where different regions and nations use separate reporting systems based on differing calculation methods and emission factors, unifying the system globally to reach a global common method is not an easy task.

Therefore, even if a disclosure system based on recommendations by the TCFD becomes adopted or encouraged, quantitative comparison across borders between sectors or individual companies within a sector remains impossible for the foreseeable future and a common understanding on this fundamental difficulties is needed by all the users of such information. Further, data disclosed by companies need to be understood based on guidelines to be prepared to reflect the reality and describe for what the data can be and can not be used, in reference to the positioning within the value chain and the net environmental impact throughout the entire Lifecycle as described above. Careful measures need to be constructed to ensure that the reporting/disclosing companies are never getting unfair social pressures and/or being forced to make loss as the result of arbitrary assessment or misinterpretation of reported numbers.

I have discussed the challenges and concerns regarding the study on a new financial disclosure being progressed by the Task Force on Climate-related Financial Disclosures under the FSB to the extent of my current knowledge. It is easy to imagine that various other points would come to light upon further scrutiny.

The report by the TCFD is likely to be adopted as an international initiative by authorities regulating financial services, so even if it is a *voluntary* disclosure system, the impact on corporate management is not negligible. Unfortunately, input from the industrial sector seems extremely limited not only from Japan but globally. The project is being led mainly by the experts on accounting, auditing and finance from Europe and the US, so there is probably little consideration for my perspectives described above. I ask those in the corporate sector reading this paper, especially those in industries that are likely to be targeted for such disclosures, to follow up on these points in the future and become involved in a capacity that ensures the project progresses in a way that reflects the various realities in the industrial sector.