## MS&AD Insurance Group Holdings ESG Meeting 2020 (Held on December 18, 2020) Part I. Q&A Summary

The following abbreviations of company names are used in this document.

MS&AD: MS&AD Insurance Group Holdings, Inc.

Jupiter: Jupiter Intelligence, Inc.

## 1. Business Activities with Consideration for Sustainability

- Q1: I understand that investments are being made with ESG in mind. What do you think is the significance of this for MS&AD's shareholders?
- A1: ESG investments and loans are made from a medium- to long-term perspective. Although there is some debate as to whether we can expect a large short-term return, we believe that we can expect a return in the medium to long term and contribute to the enhancement of corporate value.
- Q2: Even with the shift to EVs (electric vehicles), automobiles will continue to emit CO<sub>2</sub> over the next 20 years or so. What do you think of owning shares in an automobile manufacturer from an ESG perspective?
- A2: Because automobiles are an essential part of the infrastructure of modern society, we do not take the simplistic view that "it is not good to own shares of automobile manufacturers from an ESG perspective" but look at them from a broader perspective. It is necessary to reduce the environmental impact caused by automobiles, and automobile manufacturers are surely making efforts to reduce it. This issue needs to be addressed by the whole society.

## 2. Responding to Climate Change

- Q1: Please tell us about the "Development of services for financial institutions" described on page 28. How sensitive are megabanks to climate change in their loan portfolios?
- A1: Megabanks currently disclose information in line with TCFD. As for physical risk, they disclose the amount of risk associated with real estate secured loans to companies. With respect to loss on profits, we calculate the impact on profits in the event that the borrower's business cannot continue due to a flood disaster at the location of the head office, and calculate total credit costs using each bank's credit model. The results of the paper used as the basis for the prediction map for changes in flood frequency (page 24) are used by two of the three megabanks. The shaded area on page 28, which reflects how frequent once-in-100 years floods may become, is used as the amount of risk.
  - However, it does not take into account the expected future increase in flood depth and damage due to climate change. Using Jupiter's analysis, it will be possible to include that in the calculation.
- SQ1: Does this mean it is currently limited to property-related risks? Does this simulation exclude cases where the exposure of various industries to climate change could worsen the situation of bank borrowers?
- SA1: The scope of assessment depends on the asset level data that customers have. In addition to the properties, if we know the location of the company's bases and the amount of production for each, we

can calculate the profit impact of the temporary shutdown of the bases.

SQ2: Does this service extend beyond megabanks?

SA2: I heard that regional banks are also considering analysis.

SQ3: In Japan, too, it has been said that the effects based on the NGFS (Network for Greening the Financial System/A network of financial authorities related to climate change risk, etc., consisting of central banks, etc.) scenarios will be examined starting next year. It seems that the preliminary stress tests will be reported to the financial authorities by 3 megabanks in the summer of 2021. Is your company participating in this project?

SA3: We are not participating.

(Note)

MS&AD Holdings are exchanging opinions with the financial authorities separately.

Q2: How do you differentiate your TCFD efforts from those of your competitors?

A2: Our Group incorporated not only TCFD but also SDGs into its management plan quite early. Our management philosophy is "to contribute to the development of a vibrant society and help secure a sound future for the planet." I think Our Group is unique in its culture of spreading environmental and ESG activities throughout the company.

In the area of consulting, we have an advantage in calculating the physical risks of climate change. Our deep knowledge of natural disaster risk models and the amount of risk leads to differentiation. Internationally, there are only a few companies like Jupiter that are capable of multi-hazard evaluation on a global basis. It also differentiates itself in terms of time and financial impact.

SQ1: Does being able to work with Jupiter relatively early lead to differentiation?

SA1: That is correct. For about three years, we have been conducting research on climate change "LaRC-Flood Project" in cooperation with the University of Tokyo and Shibaura Institute of Technology. We have been actively involved in this field since around the time of the launch of TCFD, and it is now bearing fruit.

Q3: I think it is possible to calculate the amount of climate change risk in a more precise manner by making use of Jupiter's knowledge. Have you made such a refinement?

Also, if there is a lack of perception of climate change risks outside your company, I think that if arrange reinsurance now, it can be cheaper. What do you think?

A3: There are some technical issues that need to be addressed in order to utilize Jupiter's knowledge in risk measurement for insurance companies, but we are considering the elaboration of methods for measuring risk amounts in light of climate change. For example, although it is not Jupiter's, we are also conducting simulations and research and development on how strong past large typhoons will be in future weather conditions, and how much damage they will cause.

Jupiter's expertise can be used to provide services for companies that are struggling with how to disclose in line with TCFD. Our Group, on the other hand, uses a variety of risk models to calculate

- the extent of damage from disasters that occur once every 200 years, so the directions of these approaches are slightly different. We plan to continue model-based risk calculation for the time being.
- SQ1: I think that model-based risk calculation is based on data from past natural disasters. Are you considering incorporating into the calculation how current natural disasters will be in the future?
- SA1: As you pointed out, the model is based on historical data. We recognize that one of the issues to be addressed is to incorporate into our calculations the future impact of natural disasters. However, it is very difficult to calculate the future impacts of climate change quantitatively, and the same is true for reinsurance. Reinsurance companies also use models to calculate reinsurance premiums, which is where the knowledge of the primary and reinsurance companies comes in. How accurately we can calculate future risk amounts is an issue for the future.

End