

## Nomura Outlines Research on Determining SDG Bonds by Natural Language Processing Technology

**Tokyo, October 1, 2021**—Nomura Securities Co., Ltd. (NSC), a wholly owned subsidiary of Nomura Holdings, Inc., announced in a news release on August 11, 2021<sup>1</sup> that it had started research on determining SDG bonds using natural language processing (NLP) technology with the support of Sony Computer Science Laboratories, Inc. (Sony CSL). Nomura today announced that it has determined the framework of the research.

Institutional investors' interest in sustainable fixed income investment has increased due to the widespread recognition in recent years of the United Nations Sustainable Development Goals (SDGs). In addition to the growing issuance of sustainable bonds such as green and social bonds, new investment options have been introduced such as transition bonds limiting the use of funds to projects that support the transition to a low carbon economy and society.

In November 2019, NSC launched NOMURA-BPI SDGs<sup>2</sup>, a sub-index to the Nomura Bond Performance Index, which consists of green bonds, social bonds and sustainability bonds (SDG bonds). The index was designed to be a benchmark for portfolios that invest in SDG bonds as well as for index investments.

However, sustainable investing is still in its early stages in the Japanese corporate bond market, and the outstanding amount of SDG bonds is not sufficient enough to meet the demands of institutional investors. Expanding the index universe has been an important focus of NOMURA-BPI SDGs.

The research was launched to address this issue of expanding the universe for sustainable bond investments. Technically, the research quantitatively evaluates the relevance of how funds are used to achieve SDGs by using NLP to analyze the prospectuses and sustainability reports of corporate bond issuers. The target of this evaluation includes bonds not formally classified as SDG bonds.

The research focuses on the correlation between efforts to achieve the SDGs and use of corporate bond proceeds. Rather than taking an all-or-nothing approach to whether the subject bond is an SDG bond, the research will implement relative scoring to determine the extent to which the bond will contribute to achieving the SDGs.

Specifically, based on the degree of similarity to previously issued SDG bonds, the research will calculate the probability value of corporate bonds for each of four categories: green, social, sustainability, and non-SDG bonds. The research will simultaneously determine the degree of

---

<sup>1</sup> <https://www.nomuraholdings.com/news/nr/nsc/20210811/20210811.pdf>

<sup>2</sup> NOMURA-BPI SDGs selects SDG bonds from a universe of NOMURA-BPI constituents, calculating the index values and risk indicators.

similarity (probability value) between information contained in UN documents on the 17 SDG objectives (and 169 targets) and the purpose of funding of the corporate bond.

The determination method is not based on a subjective process by an evaluator, but an objective algorithm based on NLP analysis, making it possible to provide a consistent and non-arbitrary evaluation on many corporate bonds. Therefore, even in the case of corporate bonds not formally classified as SDG bonds and transition bonds, whose eligibility as SDG bonds has been the subject of debate, it is possible to objectively evaluate the correlation between sustainability and fund usage from issuers' prospectuses and sustainability reports, thus enabling classification as a target for sustainable bond investment.

Details of the research will be presented at Nomura seminars, and NSC also plans to publish the results. NSC will use the results of the research to expand NOMURA-BPI SDGs and develop new benchmark indices for sustainable bond investments.

As part of its aim to Drive Sustainability, Nomura actively engages in ESG and SDG activities to help resolve social issues and create a more sustainable future. By providing data from the research and developing indices, Nomura aims to contribute to the sustainable development of the economy and society, and support the growth of the SDG bond market in Japan.

---

ends

---

#### Nomura

Nomura is a global financial services group with an integrated network spanning over 30 countries. By connecting markets East & West, Nomura services the needs of individuals, institutions, corporates and governments through its three business divisions: Retail, Wholesale (Global Markets and Investment Banking), and Investment Management. Founded in 1925, the firm is built on a tradition of disciplined entrepreneurship, serving clients with creative solutions and considered thought leadership. For further information about Nomura, visit [www.nomura.com](http://www.nomura.com).