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ESG Bond Market: Current State & Outlook

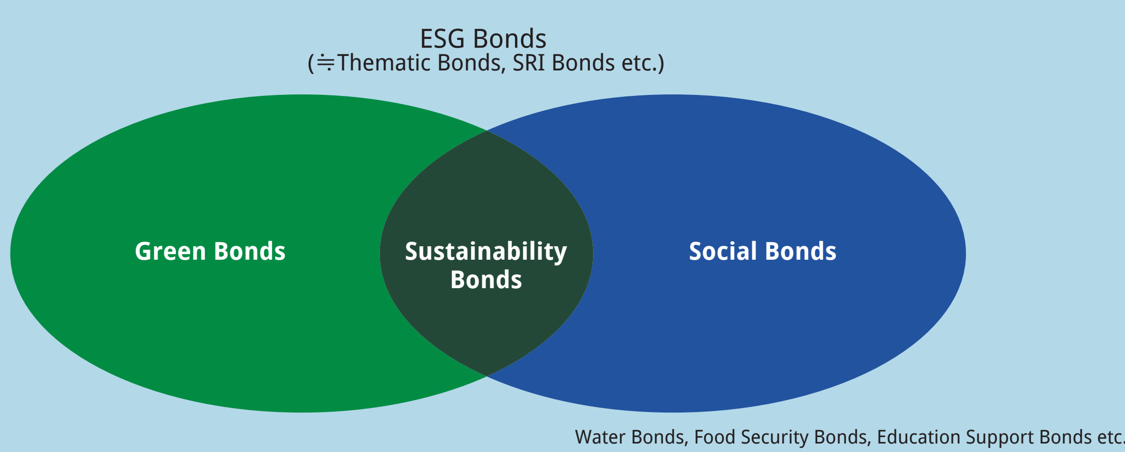
What Are ESG Bonds?

ESG is an acronym for environment (E), society (S), and governance (G). The financial markets have had the concept of socially responsible investment (SRI) since the first half of the 20th century. More recently, consideration of ESG factors as an investment concept has spread rapidly since the Principles of Responsible Investment (PRI) launched in April 2006 under the initiative of former Secretary-General Kofi Anan at the United Nations (UN). Consideration for ESG in Japan's financial markets, including both the equity and fixed income markets, has risen markedly among investors, issuers and other market participants since Japan's Government Pension Investment Fund (GPIF) became a PRI signatory in September 2015.

The history of ESG in the fixed income market dates back to the latter 2000s, when the issuance of bonds aimed at solving ESG-related issues began with bonds classified under such categories as thematic bonds, SRI bonds, and social contribution bonds. In January 2014, Green Bond Principles (GBP) developed in a joint effort by green bond market participants were announced and became the basis for the development of ESG bonds.

As at end-May 2019, principles and guidelines have been established for three types of ESG bonds: (1) green bonds, (2) social bonds and (3) sustainability bonds (Figure 1). This article focuses on

Figure 1: Scope of ESG Bonds (Image)



Source: Nomura Institute of Capital Markets Research

ESG bonds that fall within the scope of the bonds shown in Figure 1. This paper presents the main characteristics of ESG bonds, their issuance status, investor base and market infrastructure, as well as the major supportive measures that have been taken by governments. Lastly, the paper will examines future issues for ESG bonds.

Main types of ESG bonds

Green bonds are bonds issued to raise funds required by projects aimed at bringing about improvements in the environment. The concept is established since the announcement of the GBP in January 2014. GBP was initially developed by four banks in Europe and the United States (US), and the International Capital Market Association (ICMA) was later appointed as Secretariat, assuming administrative duties and providing guidance for the governance of the principles. Several organisations have established green bond standards and guidelines other than the GBP. In Japan, the Ministry of the Environment announced its "Green Bond Guidelines 2017 Edition" in March 2017. From a more international viewpoint, the European Commission is developing an EU Green Bond Standard (EU GBS), and the International Organization for Standardization (ISO) is currently preparing for the establishment of an international standard on green bonds (ISO 14030). Green bond issuance is considered to have started with the Climate Awareness Bond issued by the European Investment Bank (EIB) in June 2007. In 2008, The World Bank issued the world's first bond to be called a "green bond."

Social bonds are bonds issued to fund projects that respond to social issues. The ICMA has published its Social Bond Principles (SBP) and the Association of Southeast Asian Nations (ASEAN) Capital Markets Forum (ACMF) has issued its Social Bond Standards (ASEAN SBS). The vaccine bond issued by the International Finance Facility for Immunisation (IFFIm) in November 2006 is regarded as the first social bond.

Sustainability bonds are bonds issued to raise funds for projects that contribute to the environmental and social development. The ICMA has established its Sustainability Bond Guidelines (SBG) and the ACMF has published its Sustainability Bond Standards (ASEAN SUS). The first sustainability bond is considered to be a bond issued by the former French administrative région Nord-Pas-de-Calais (now Hautes-de-France) in December 2008.

ESG bond types

ESG bond types include standard ESG bonds, revenue bonds, project bonds, and securitised bonds. The standard bonds have achieved the greatest market penetration. Standard bonds are used to fund ESG-related projects, but the bond repayment source for such bonds is not limited to the cash flow generated by the project but also effectively includes the issuer's whole cash flow. The pricing of standard ESG bonds theoretically is in line with other bonds from the same issuer as issuer creditworthiness and seniority of bonds are similar. However, issuers are able to demonstrate to investors their commitment to ESG-related projects through the issuance.

External evaluations

One difference between ESG bonds and ordinary bonds is the existence of external valuations for the former. There are several kinds of external evaluation, including second-party opinions, but these evaluations are typically conducted by an independent institution that provides an objective evaluation of the issuer's ESG bond framework. External assessment providers include the Center for International Climate Research (CICERO) in Oslo, Norway; Sustainalytics in the Netherlands; and Vigio Eiris in Europe. Auditing firm–related organisations and credit rating agencies are also providing evaluations.

ESG bonds' merits and demerits

For issuers and investors, the merits of issuing and investing in ESG bonds include the ability to use their issues or investments as public relations (PR) opportunities to appeal to their proactive support of ESG-related issues. For investors, ESG bonds (especially in the Japanese market) also offer greater price stability on the secondary market because many investors tend to hold the bonds until maturity.

On the other hand, the demerits of ESG bonds for issuers include more costly and time-consuming reporting and external evaluations than is the case with normal bonds. The demerits for investors include (1) relatively more costly and time-consuming screening and monitoring because ESG bonds are relatively new financial products and (2) the possible exposure to reputation risk if the project funded by the ESG bond runs into problems and/or fails to its stated goals.

ESG Bond Issuance to Date and Investor Base

ESG bond issuance to date

ESG bond issuance began in the late 2000s, with issuance centering on green bond issues in the US and Europe. According to Bloomberg data as at end-May 2019 (excluding US municipal bonds and securitised bonds), green bonds accounted for around 86% of ESG outstanding issues (approximately USD612.7bn). Issuance gradually increased from the late 2000s and then expanded substantially from around 2015, when the UN adopted the Sustainable Development Goals (SDGs) and the Paris Agreement was adopted by 195 countries. Financial institutions account for about 20% of total outstanding issuance, followed by government agencies, supranationals, and utilities. China has accounts for the largest share of outstanding issuance at about 16%, followed by France, the Netherlands, supranationals, Germany and the US. Japan's share is about 2%. By currency, issues denominated in the euro accounted for about 47% outstanding issuance, followed by the US dollar at about 26%. Lastly, Bloomberg data shows the weighted average maturity of outstanding issues is about ten years.

Japanese issuers' share of current outstanding ESG bond issuance is only about 2% but has been steadily increasing since around 2017. While this rise reflects broader trends in the international financial markets, it also has been driven by the Ministry of the Environment measures supporting green bond issuance, as will be discussed later. Outstanding issuance of ESG bonds by Japanese issuers currently totals about USD13.9bn, of which about 72% are green bonds, 20% are sustainability bonds, and the rest are social bonds. Issuance amounts have increased steadily since 2017. Financial institutions and government agencies account for almost 70% of outstanding issues. As for currencies, the yen is the most popular for Japanese issuers, with a share of about 38%, but issues denominated in the euro and US dollar also account for a significant share of outstanding issues. While five years is the single most popular maturity for ESG bonds issued by Japanese issuers, the weighted average maturity for outstanding issues is about seven years (Figure 2).

Current status of investment in ESG bonds

The investor base for ESG bonds, including green bonds, is a diverse group, ranging from major institutional investors to investors specialising in ESG and SRI and individuals. Major institutional investors that have declared investments in green bonds include Zurich Insurance (USD5bn as at November 2017), Deutsche Bank (EUR1bn as at February 2015) and Germany's Kreditanstalt für Wiederaufbau (KfW, EUR1bn as at April 2015). Japanese investors also have been proactively investing in green bonds. For example, Nippon Life Insurance's current medium-term management plan (FY17-20) targets ESG investments totaling JPY700bn, and the insurer has announced its investments to date include green bonds issued by the City of Paris, environmentally friendly bonds issued by Transport for London, and Tokyo Green Bonds issued by the Tokyo Metropolitan Government (TMG). Dai-Ichi Life Insurance has disclosed its investments in ESG-themed bonds issued by supranationals and green bonds issued by TMG and the Japan Railway Construction, Transport and Technology Agency (JRTT).

Pension funds are the core investors in green bonds. The World Bank's first green bond issuance in 2008 was motivated by Scandinavian pension funds desire for fixed income financial products to support the transition to low-carbon, more climate-resilient world. Thereafter, many other pension funds began proactively investing in green bonds. In Japan, GPIF and the World Bank Group released a joint research report entitled "Incorporating Environment, Social and Governance (ESG) Factors into Fixed Income Investments". Taking into consideration the result of that research, in April 2019 the International Bank for Reconstruction and Development Bank (IBRD) and the International Finance Corporation (IFC) announced that they would propose opportunities for investments in ESG bonds to the investment management companies used by the GPIF. These recent developments indicate that ESG bonds are likely to further penetrate the Japanese financial markets.

Meanwhile, ESG bond funds provide investors with another way to invest in ESG bonds. Such funds generally (1) enable investors to invest small amounts, (2) provide a diversification effect, (3) are managed by experts, and (4) secure transparency through publication of reference values and other indicators. Reflecting rising demand for investments in ESG bonds, we have witnessed a continuous trend in ESG bond funds being established since around 2015.

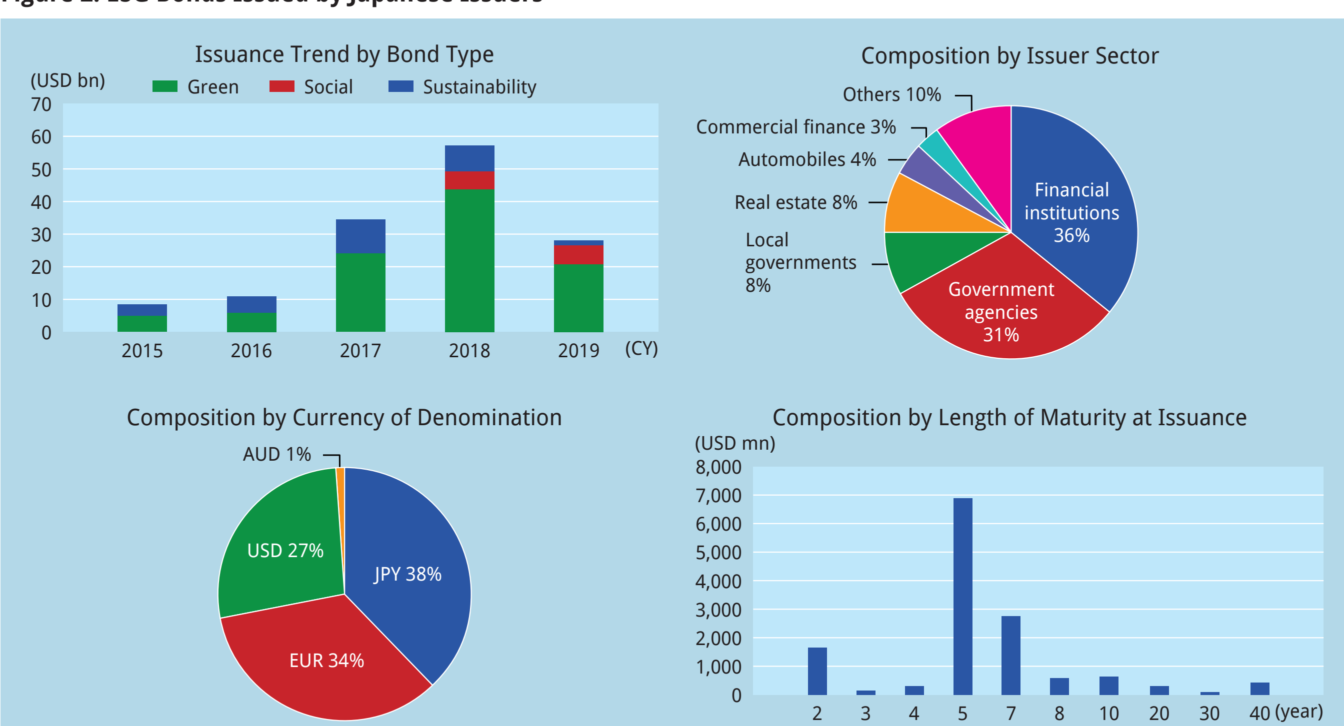
ESG Bond Market Support Infrastructure

ESG bond indices

ESG-related bond indices are one of two types. The first are indices comprising ESG bonds (at present, mostly green bonds). This type of index makes it relatively easy for market participants to understand the overall movement in the market for green bonds. In addition, bonds considered appropriate for inclusion in such indices tend to have higher liquidity, which contributes to the development of the green bond market.

The second type of index is one that is based on an existing bond index but changes the weighting of the components in the index based on their ESG rating and other factors. The similar methodology is used by eq-

Figure 2: ESG Bonds Issued by Japanese Issuers



Note: Issuance amount (as at 31 May 2019) is based on green bonds, social bonds and sustainability bonds defined by Bloomberg. Value is on a US dollar basis.
Source: Bloomberg, Nomura Institute of Capital Markets Research

uity ESG indices. The performance of these indices enables investors to grasp the effectiveness of taking into consideration ESG factors in their bond investment decisions.

While Japan does not yet have any ESG-related bond indices, Nomura Securities and the Nomura Research Institute announced in April 2019 that they had begun joint research targeting the establishment of a sub-index to the Nomura Bond Performance Index (NOMURA-BPI). The sub-index has been tentatively named NOMURA-BPI SDG Bonds.

ESG bonds and securities exchanges

In some countries, bonds are listed on securities exchanges, and in some cases ESG bonds are issued as listed bonds. According to the Sustainable Stock Exchanges (SSE) Initiative, as at end-September 2018, 15 securities exchanges have bonds listed in the sustainability bond category.

In Japan, the Tokyo Stock Exchange launched a dedicated platform for green and social bonds on its TOKYO PRO-Bond Market in January 2018. The platform allows issuers, at their discretion, to post information pertaining to their green and/or social bond issues, such as the use of bond proceeds, post-issuance disclosure reports, and reviews by external evaluators. As at end-May 2019, the Japan International Cooperation Agency (JICA) has posted information on its social bond issues. In Japan, most bonds transactions are conducted over-the-counter, not on securities exchanges. Accordingly, as of end-May 2019, JICA's social bonds and green bonds issued by Bank of China Tokyo Branch are the only ESG bonds listed on the Tokyo PRO-BOND Market.

Securities exchanges are expected to support development of the ESG bond market by establishing guidelines, improving market transparency, creating lists of ESG bonds, providing information that contributes to creation of ESG indices and exchanged traded funds (ETFs), and through other activities that contribute to greater awareness and understanding of ESG bonds.

Government Initiatives in Support of ESG Bonds

Governments around the world are promoting the issuance of and investment in ESG bonds, especially green bonds, and in some cases governments also provide financial support for ESG bonds. These government initiatives have included measures supporting issuers, investors, and the financial instruments themselves (Table 1).

The major initiatives supporting ESG bonds in Japan include the Ministry of the Environment's Pilot Project for Green Bond Issuance and its Green Bond Issuance Promotion Platform (issuer support business). The Pilot Project for Green Bond Issuance was started in fiscal 2017 and aims to promote green bond issuance by creating and widely disseminating examples of issues that conform to the "Green Bond Guidelines, 2017", and can be considered models for the issuance of green bonds. This project solicits applications from prospective green bond issuers. Model issues are then selected from the applications submitted and checked for alignment with the 2017 Green Bond Guidelines, after which a pre-issuance report is prepared and information disseminated. Since the project's start, five model issues have been selected, including one by JRTT.

The Financial Support Programme was started in fiscal 2018. Under the programme, the Ministry of the Environment provides subsidies for expenses required by those who support companies, local governments, and other entities that work to issue green bonds, in the form of the issuance support (granting external reviews, consultation on establishing a green bond framework, etc.) In fiscal 2018, many issuers, mostly corporates, took advantage of the programme to issue green bonds. Since the programme was put in place, approximately 70% of the green bonds that met the requirements for receiving subsidies had made use of the subsidies.

Table 1: Main Initiatives in Support of ESG Bonds

Country / Region	Details
Japan	• In addition to its "Green Bond Guidelines, 2017", the Ministry of the Environment (MOE) started its Pilot Project for Green Bond Issuance and the Financial Support Programme for Green Bond Issuance. • The MOE has also implemented other measures to promote green bond issuance. One such initiative is the Japan Green Bond Award, which recognises entities making pioneering efforts related to the issuance of green bonds. Another is subsidies for research on such topics as the pricing, risks, and impact of green bonds and other ESG bonds.
Singapore	• In June 2017 the Monetary Authority of Singapore (MAS) established a programme to provide subsidies to partially cover the expense (up to SGD100,000 per issue) of third-party evaluations of green bonds listed on the Singapore Exchange (SGX).
Hong Kong	• In June 2018, the Hong Kong government announced the establishment of its Green Bond Grant Scheme (GBGS) to provide subsidies to green bond issuers to cover the cost of external evaluations required to obtain certification under the Green Finance Certification Scheme (GFCS) established by the Hong Kong Quality Assurance Agency (HKQAA). A subsidy of up to HKD800,000 per issue is available for issues with a minimum size of HKD500mn (or equivalent in foreign currency).
Malaysia	• Capital Markets Malaysia, an organisation established by Malaysia's Securities Commission (SC), established a Green SRI Sukuk Grant Scheme in January 2018.The scheme will subsidise 90% (up to RM300,000 per issue) of the expenses required for acquiring an external valuation for green sukuk bonds issued in Malaysia.
United States	• The US formerly had systems promoting the issuance of clean renewable energy bonds (CREBs) and qualified energy conservation bonds (QECBs). The systems provided investors in the bonds with tax deductions or issuers received subsidies supporting issuance. However, both systems were terminated on 1 January 2018 as part of the Trump administration's 2017 tax reform.However, investors holding previously issued bonds and the issuers of those bonds will continue to receive the promised benefits for the life of the bonds.
Luxembourg	• In July 2018, Luxembourg put in force a new law establishing a new type of covered bond, i.e. green covered bonds), which are backed by loans or assets linked to renewable energy.

Source: Nomura Institute of Capital Markets Research

Issues for Future Development of the ESG Bond Market

In recent years, countries around the world have been making efforts to achieve the goals laid out in the UN's SDGs and the Paris Agreement. It is generally thought that a large amount of financial resources will be required to achieve these goals. Accordingly, it will be important to supplement public-sector resources with private-sector funds made available through the financial markets.*[1] With the concepts underlying SDGs and the Paris Agreement closely related to ESG issues, ESG bonds are expected to take on greater importance as an effective means for raising funds from the private sector. Meanwhile, every year an increasing number of investors are becoming PRI signatories and are making ESG one of the factors they consider when investing. The ESG market, including bonds, is therefore expected to continue expanding.

Moving forward, issues related to the development of the ESG bond market will be debated from various perspectives. However, there is already broad agreement about the need for (1) standardisation of guidelines and reporting and (2) the accumulation of issuance data and example cases. Greater standardisation is expected to facilitate the comparison of issues and enhance investment convenience. Green bond guidelines have already been established by the ICMA and several national governments. In addition, the ISO and EU are preparing their own guidelines. Actions taken by governments and other authorities to establish and revise guidelines that take into consideration financial market conditions in each region and seek to harmonise international standards will likely influence investor confidence in ESG bonds and determine the growth potential of the ESG bond market.

In addition, standardisation of reporting on ESG bonds will contribute to greater investment convenience. For example, reporting of greenhouse gas reductions, one type of project eligible for green bond issuance, takes various forms depending on the issuer. However, in November 2015, a group of 11 public financial institutions, including the World Bank, released a document outlining a harmonised framework for reporting on the impact of projects to which green bond proceeds have been allocated.*[2]

Compared to ESG as a factor in the equity market, ESG is a relatively new concept for fixed income products. ESG bond issuance and investment is still at development phase, largely due to relative lack of data, example cases and empirical research. While there are several databases on green bonds, a limited number of information providers are accumulating data on social bonds and sustainability bonds. Desirable actions include issuers clearly labelling bonds as ESG bonds before issuance and industry groups and governments strengthening their efforts to accumulate and provide data and example cases. The provision of such information to both issuers and investors will be crucial to the development of the ESG bond market. Although this market is currently in its very early stage of development and has many issues to overcome, many market players are working to resolve these issues. Accordingly, future developments bear watching closely.

The ESG bond market is a new market that helps bring environmental and social issues closer to the forefront of the financial markets. That said, it is also necessary to continue developing this new market into one that will be able to ride out disruptions and turmoil that occasionally strike the financial markets. Toward that end, all financial market stakeholders need to tackle these ESG issues head on with concrete action that will contribute to the sustainable development of the ESG bond market.

Notes

*1 For example, the International Energy Agency (IEA) estimates that achieving 2°C target will require total funding of USD75trn during 2016–2040 (USD40trn for energy supply and USD35trn for needed additional improvements to energy efficiency). The UN estimates that the funds needed to achieve its SDGs will come to USD5-7trn annually during 2016–2030, including USD3.3-4.5trn annually in developing countries. (International Energy Agency, *World Energy Outlook 2016*, 16 November 2016; United Nations Conference on Trade and Development, *Development and Globalization Facts and Figures 2016*, July 2016, p.165)

*2 World Bank et al., *Green Bonds Working Towards a Harmonized Framework form Impact Reporting*, November 2015.

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