Hitachi Research Institute Report

Corporate Value Improvement in Anticipation of the Full-scale SDGs Era

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Against the backdrop of the expansion of ESG investment that incorporates environmental, social, and governance factors and release of Sustainable Development Goals (hereinafter, "SDGs") by the United Nations, initiatives by companies toward the resolution of global challenges are attracting attention. Investors expect quantitative explanations from companies on how they contribute to the SDGs through business.

1. Contribution by Companies to Resolve Global Challenges Required by ESG Investors and SDGs

Recently, the trend of valuing the creation of social and environmental values (social impact) (Note 1) of companies is intensifying, having been triggered by the Principles for Responsible Investment and SDGs released by the United Nations,.

The Principles for Responsible Investment were released by the United Nations in April 2006 for the purpose of directing the investment behavior of investors toward ESG investment. Management institutions and investors that agree with these principles conduct investment in consideration of ESG, namely, the environment, society, and governance (ESG investment) in the decision-making process in investment and management policies. ESG investment is based on the concept that the health of companies and the health of society and the environment are mutually dependent on one another, and by investing in companies that give consideration to ESG, investors encourage these companies to contribute towards resolving global challenges.

SDGs are sustainable development goals released by the United Nations in 2015 that set 17 goals to resolve challenges such as poverty, climate change, and development of sustainable cities by 2030. In addition to the public sector such as the governments of advanced and developing countries, all stakeholders including private corporations are requested to participate. In other words, companies are expected to contribute to sustainable development and resolve global challenges through their businesses (Fig. 1).

Since SDGs contain many challenges in the environmental and social (E, S) aspects, initiatives by companies for SDGs often lead to positive evaluations from ESG investors.



Source: United Nations, etc.

Figure 1 SDGs Outline

2. Accountability Requested by ESG Investors

ESG investment has been significantly expanding

globally as investment and management institutions are increasingly interested in ESG investment following the release of the Principles for Responsible Investment. More specifically, the asset balance of ESG investment has increased by 14.6% globally on average annually since 2012 and reached approximately 23 trillion dollars in 2016, which accounts for 26% of all global management assets (Fig. 2).

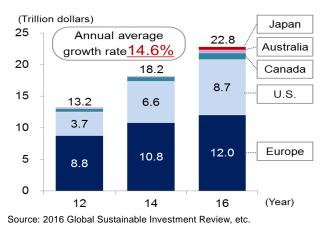


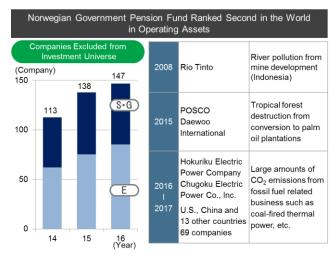
Figure 2 Increasing Global ESG Investment Asset

Balance

In Japan as well, the number of management institutions and investors who signed the Principles for Responsible Investment is steadily increasing, and major financial institutions including Mitsubishi UFJ Trust and Banking and Sonpo Japan have also become signatories. Furthermore, the Ministry of Economy, Trade and Industry of Japan formulated guidance on ESG information disclosure by companies and company-investor dialogues in 2017, and the GPIF (Government Pension Investment Fund), which is the world's largest pension fund, started management of Japanese stocks that take ESGs into account on a scale of one trillion yen.

Companies that are behind in response to ESG investment are excluded from the investment. For example, the Government Pension Fund of Norway (ranked second in the world in terms of management asset monetary amount) formulated an ESG investment policy and excludes companies with high ESG-related risk from their investment universe. Year by year, the number of companies that are excluded from their investment universe

has been on the rise and reached 147 companies in 2016. In particular, from 2016 to 2017, Norway's Government Pension Fund excluded companies dependent on fossil fuel-related business for 30% or more of their profits because of large CO₂ emissions. Japanese companies including Hokuriku Electric Power Company and The Chugoku Electric Power Co., Inc. were also excluded (Fig. 3).



Source: Arabella Advisors materials, etc.

Figure 3 Exclusion from Investment Due to Delays in Response to ESG Investment

On the other hand, if companies respond to ESG investment proactively and appropriately and fulfill their accountability to investors, they can be subject to ESG investment whose capital is estimated to reach approximately 23 trillion dollars around the world, and these companies are able to improve their corporate value.

ESG investors demand accountability from companies receiving investment including the disclosure of specific and detailed ESG-related information in addition to financial information. The number of shareholder proposals in the U.S. increased from 715 in 2006 to 916 in 2016, and for the breakdown of shareholder proposals, ESG-related proposals significantly increased from 39% to 88%. For example, in the case of Deere & Company, an American agricultural machinery manufacturer, the company received a request from a shareholder that the board generate a feasible plan for the company to reach a net-zero GHG emission status by the year 2030 for all

aspects of the business (Fig. 4).

Ratio		Diversified ESG Related Shareholder Proposals (Example)		
E	35%	Deere & Company (John Deere)	- Generation of a feasible plan by the board for the company to reach a net- zero GHG emission status by 2030	
S	20%	Verizon	- Release of progress for response to cyber security & privacy protection	
G	45%	еВау	- Expansion of the diversity of the board of directors, and increase of the minimum number of female directors to two	

Source: Gibson Dunn Shareholder Proposal Development 2016

Figure 4 ESG Investors Request High Accountability from Companies

For companies to carry out their explanatory responsibilities to ESG investors, it is effective for the companies to objectively explain by quantitative assessment and disclosure of non-financial factors such as the impact on society and environment from the company's business activities. Responding to all ESG-related challenges is difficult for companies, and companies need to prioritize challenges to be addressed based on their own strengths and risks. Repeated dialog with external shareholders is important to select key challenges that reflect social trends.

SAP, the German software company, created a list of social challenges believed to be related to its operations and supply chain by mainly referencing the international guidelines G4 of GRI (Global Reporting Initiative) for disclosure of the sustainability information of companies. SAP repeatedly conducted verification through dialog with external stakeholders and ranked key challenges. More specifically, listed challenges were respectively assessed according to two indices, which are the degree of importance for stakeholders and impact level on their business activities. It then narrowed down the challenges to items rated high in both aspects, which SAP then considered as key challenges. As a result, SAP set the following items as five key challenges which are "Innovation," "Impact on society," "Human capital," "Human and digital rights," and "Business conduct." SAP regards the following three points as key points in order to assess and disclose non-financial factors. Here, "Human capital" is introduced as an example.

- Multi-faceted quantitative assessment of initiatives:
 Figures are tallied from diversified perspectives such as "domestic employment in Germany," "internship for refugees," "online training," and "employee networking events," and the tallied figures are disclosed.
- 2. Development and continuous management of SAP's own indices: SAP developed and disclosed an Employee Engagement Index which indicates employee commitment levels and pride and loyalty towards their company, and a Business Health Culture Index which shows the well-being of employees, workplace environment, and corporate culture such as leadership.
- 3. Internal analysis and disclosure of impact on the financial aspect as well: SAP released what they found in the analysis. The analysis result showed an increase by one percentage point of the Business Health Culture Index (index based on employees' acceptability of environmental changes, leadership, stress level, and work and life balance, etc.) would increase the operating profit by 80 million to 90 million euro.

Such quantitative assessment of non-financial factors and promotion of the assessment results by companies enables investors to deepen their understanding of the company's initiatives for ESGs and encourages investor dialog with the company.

3. Initiatives by Companies for SDG-Related Businesses

SDG-related markets are estimated to be 12 trillion dollars by 2030 according to the United Nations, and for companies, contributions to these markets through business will lead to an expansion of business as well as further improvement of corporate value. Similar to the dialog with ESG investors, in dialog with municipal governments and financial institutions, making an assessment of social

impact generated through corporate activities, or essentially conducting quantitative assessment of social and environmental values that the company can create in the short and long term will play an important role.

In recent years, policies asking for a quantitative assessment of the social impact have been spreading mainly in Europe. For example, the UK enacted the Social Value Act in 2012 and includes generation of social impact in criteria to select suppliers or contractors in procurement for public services. The EU released social impact assessment guidelines in 2016. In Japan as well, a meeting for the creation of a society with mutual assistance which falls under the Cabinet Office started discussions for dissemination of quantitative assessments of social impact (Fig. 5).

Policies Asking for Quantitative Assessment					
U.K.	2012	Social Value Act	- Creation of social impact is included in public service criteria		
EU	2014	Social Impact Assessment Guidelines	- Assessment steps such as identification of impact and index setting, etc.		
Japan	Meeting for creation society mutual assi (Cabinet C		- Discussions on social impact assessment dissemination		

Source: Business & Sustainable Development Commission, etc.

Figure 5: Policies Asking for Quantitative Assessment

More auditing firms and industrial organizations are developing methods to quantify social impact generated through corporate activity. KPMG and PwC developed original assessment methods while GeSI (the Global e-Sustainability Initiative) which is the electronic industry organization has been working on the development of a quantitative assessment method of social impact for IT products and services.

Volvo quantitatively assessed social impact by using KPMG's True Value Methodology from introducing electric buses in all municipalities in Sweden, a Volvo customer. For example, in comparison with diesel buses, the cost intensity is multiplied by the degree to which electric buses ease the noise level to calculate the social impact of

healthcare cost reductions. Since electric buses use lithium for the battery, electric buses have a negative impact of the decrease of rare resources. Taking this negative impact into consideration as well, approximately 220 million dollars worth of social impact is generated overall according to calculations by Volvo. Volvo is using this type of quantitative assessment method to support customer decision making in investment.

Initiatives to use social impact and negative impact which were quantitatively assessed for examining changes to product portfolios are also seen. Some European companies have been promoting quantitative assessments of social impact for each product. These companies use three elements which include degree of importance of the business, social impact that contributes to SDGs, and negative impact as assessment indices to determine the order of development.

Investors also pay attention to the profitability of SDG-related businesses of companies. For example, when Alliance Trust Investments, an investing company in the U.K., invested in a major Irish food company, the Kerry Group, Alliance Trust Investments analyzed the impact brought by the progress of the Kerry Group's initiatives for hunger prevention, well-being, and welfare on sales of the Kerry Group's low calorie foods and low sodium foods and found the impact of a 5% sales increase. Investors are trying to consider even whether or not the company's initiatives for SDGs align with markets where the company's business portfolio expands during the decision making of investments as companies launch full-fledged initiatives for SDGs.

4. Social Impact Creation & Composition of Public Projects to Attract Private Funds

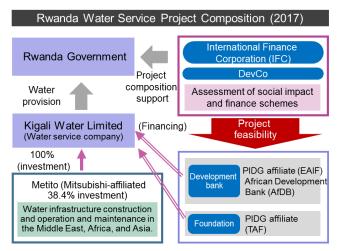
The quantitative assessment of social impact in corporate activity has been spreading globally centered in Europe, and quick launches of projects for achievement of SDGs by local governments and social infrastructure companies is becoming possible. In particular, expansion in sectors with high public interest such as energy, healthcare, town development, and disaster prevention is expected.

The key for the creation of business opportunities is project composition that includes fund procurement based on a quantitative assessment of social impact. Since the Thatcher administration, in response to the funding shortfall of the public sector, funds and know-how from the private sector have been introduced. On top of the funding shortfall, environmental problems were added, and as a result, the world's first green bond was issued in 2008. In order to secure funds from the private sector quickly for medium-to-long term public service development projects with many uncertain factors, new fund procurement structures in coordination with public institutions that value social impact have been spreading.

For example, blended finance is a system that encourages fund infusion from the private sector by injecting some funds for the project ahead of time to verify the feasibility of the projects. In addition, recently, social impact bonds have continued to grow mainly in the U.K. In social impact bonds, a quantitative social impact is generated over the long term by using funds from investors, and the investors are paid back according to the outcome effect. In Japan as well, Sumitomo Mitsui Banking Corporation is participating in Kobe City's Project for Preventing Severe Diabetic Nephropathy as an investor. As we can see in this case, further use of private funds in the public sector is occurring.

Metito, of which Mitsubishi Heavy Industries and the Mitsubishi Corporation own shares, develops its water-related business worldwide. Metito reached an agreement with the Government of Rwanda in 2017 to provide fresh and clean water to the capital city of Rwanda for 27 years. Prior to conclusion of the agreement, the International Finance Corporation of the World Bank Group which specializes in private sector development in developing countries assessed the project from the

technical and environmental and social perspectives while DevCo, which is funded by IFC and DFID (the UK's Department for International Development), etc., assessed the financial aspect of the project. These assessments verified the feasibility of the project, and as a result, Metito was able to secure low interest rate loans and donations for Kigali Water Limited which is a fully-owned subsidiary of Metito in Rwanda from a development bank (EAIF) under the Private Infrastructure Development Group (PIDG), African Development Bank (AfDB), and a foundation under the PIDG (TAF) (Fig. 6).



Source: IFC materials, etc.

Figure 6: Securing Private & Public Funds by Quantitative Assessment

To secure funds in project composition for social infrastructure, the following three points are important.

- Conducting quantitative assessment of social impact and making proposals to local governments, etc. while incorporating the methods of outside assessment institutions
- Requests to public financial institutions and foundations that are proactive in fund provision based on social impact assessments for financing and fixing financing with project assessments
- Attracting funds from private financial institutions by issuing project bonds by local governments and diversifying the risks

In response to the full-scale SDG era, incorporating commercialization know-how from the private sector in the

use of private funds in public services of local governments is also important. Social impact bonds where higher returns are given back to local governments, investors, and service providers by generating further social impact are becoming more broadly used. In addition to quantitative assessments of social impact, if the projects are composed in a way that realizes collaborative creation of social impact in the entire project with measures such as setting

incentives for each stakeholder, the possibility of new business opportunities will expand.

<Note>

*1 Social impact/According to definitions by Social Impact Assessment Examination Working Group (2016)