

***GPIF Commissioned Research  
Study of ESG Information Disclosure: Final Report  
《Summary》***

03/2019

Nissay Asset Management Co., Ltd

\* This report is the summary of *Study of ESG information Disclosure: Final Report* commissioned by GPIF on 27<sup>th</sup> September 2018.

1	Overview of the Research
2	Comparative Analysis of ESG Information Disclosure Frameworks/Standards
3	Analysis of Corporate Disclosure Status on the common parts of ESG Information Disclosure Frameworks/Standards
4	Analysis of ESG information disclosure by institutional investors
5	Key Findings and Recommendations

# Backgrounds and Purposes of the Research

- The backgrounds and purposes of this research study are as follows:

## Backgrounds

- As ESG issues become more complex and severe globally, it is imperative for GPIF as a “universal owner” to increase the long-term portfolio value as well as to improve overall financial market sustainability through minimization of the negative externalities of these problems.
- GPIF is actively engaging in various initiatives, such as the selection of ESG indices for Japanese equities, and the selection of environmental indices for Japanese and global equities, and as a basis for these activities, corporate ESG information disclosure is critically important.
- ESG information disclosure by listed companies in Japan is categorized into two groups; the one is a group of companies that actively engage in disclosure and the other is those that have not made substantive progress in disclosure (see next page). For universal owners, it would be critical to improve the entire stock markets (raising the entire level of disclosure), including relatively lagging companies.



## Cause of the Problem

- Various standards, frameworks, and guidelines, etc. with regard to ESG information disclosure have been proposed one after another in Japan and overseas, and it has been pointed out that this is causing greater confusion in corporate ESG information disclosure forefront.
- While understanding the importance of ESG information disclosure, there may be questions, such as “what kind of ESG information should be disclosed?”, or with regards to the standards for ESG information disclosure, “which one should be prioritized?”.



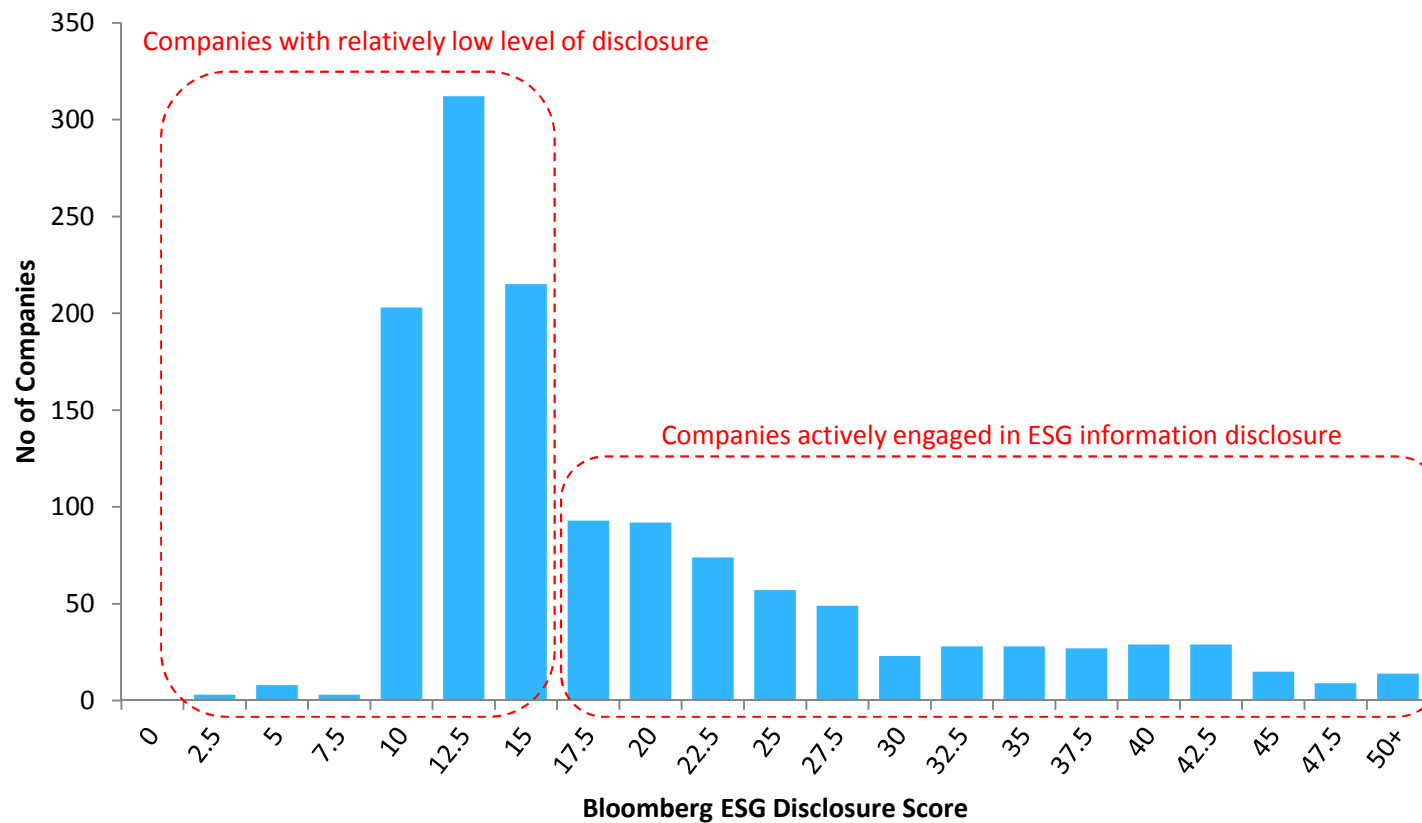
## Purpose of the Research

- Based on this situation, we examine “common parts” and “differences,” together with organizing the complete picture through comparative analysis of major ESG information disclosure frameworks/standards in Japan and overseas.
- Through the publication of the results of this research study, we hope to contribute to the further enhancement of ESG information disclosure by companies, and further development in the engagement and ESG investment by asset owners and asset managers utilizing ESG information.

# Current Status of ESG Information Disclosure by TOPIX Constituent Companies

- Looking at TOPIX constituent companies, it is recognized that there are some companies actively engaged in ESG information disclosure and others not so active.

**Fig: Distribution of ESG Disclosure Scores by TOPIX Constituent Companies**



Note 1: Bloomberg's ESG Disclosure Scores are being quantified with 0 to 100 points for the volume of ESG information disclosed by each company through a selection of 100 data points by sector.

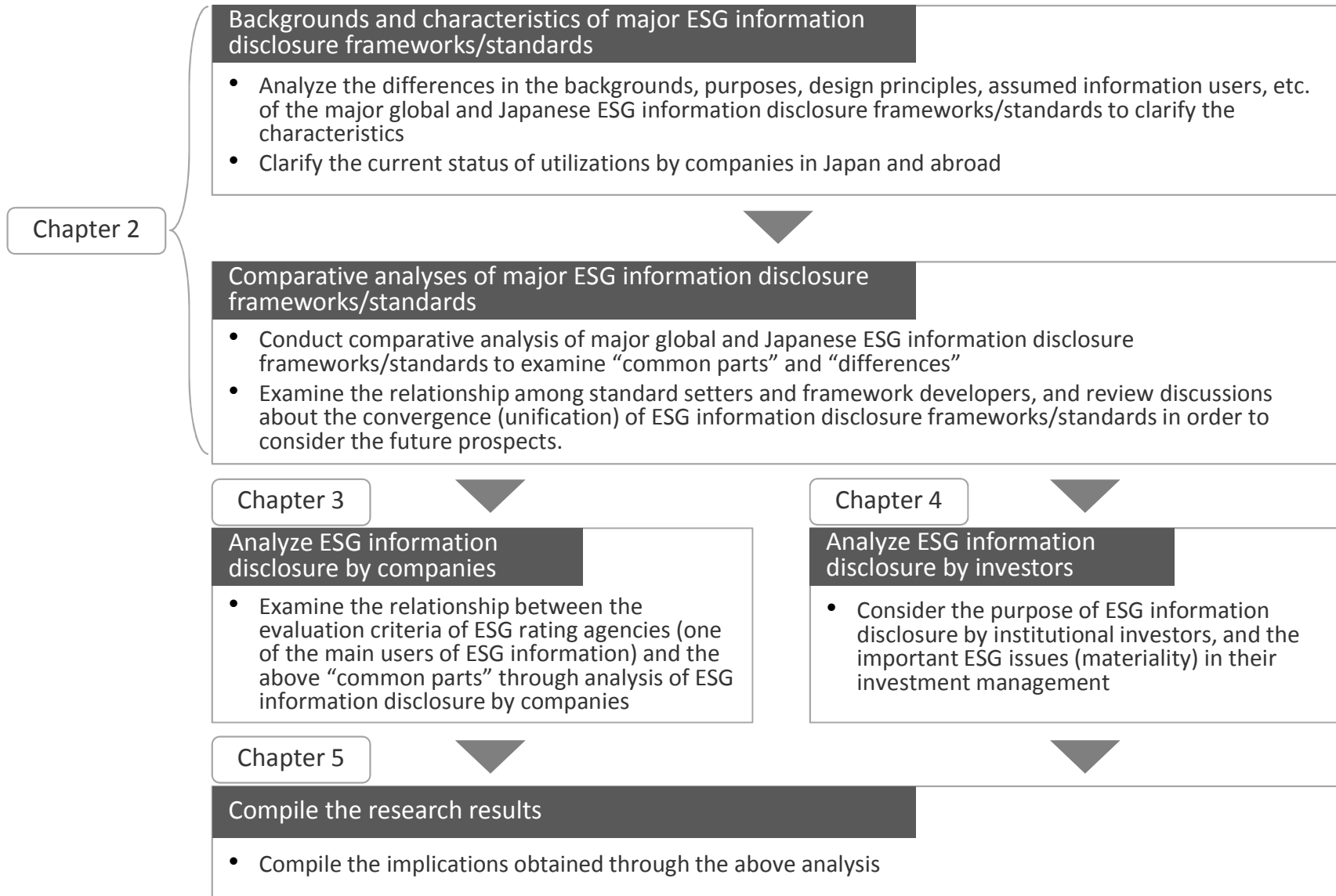
Note 2: Data is obtained as of August 13, 2018, and missing data are excluded.

Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of Bloomberg data.

# Structure of the Research (i)

- This research consists of the following five parts:

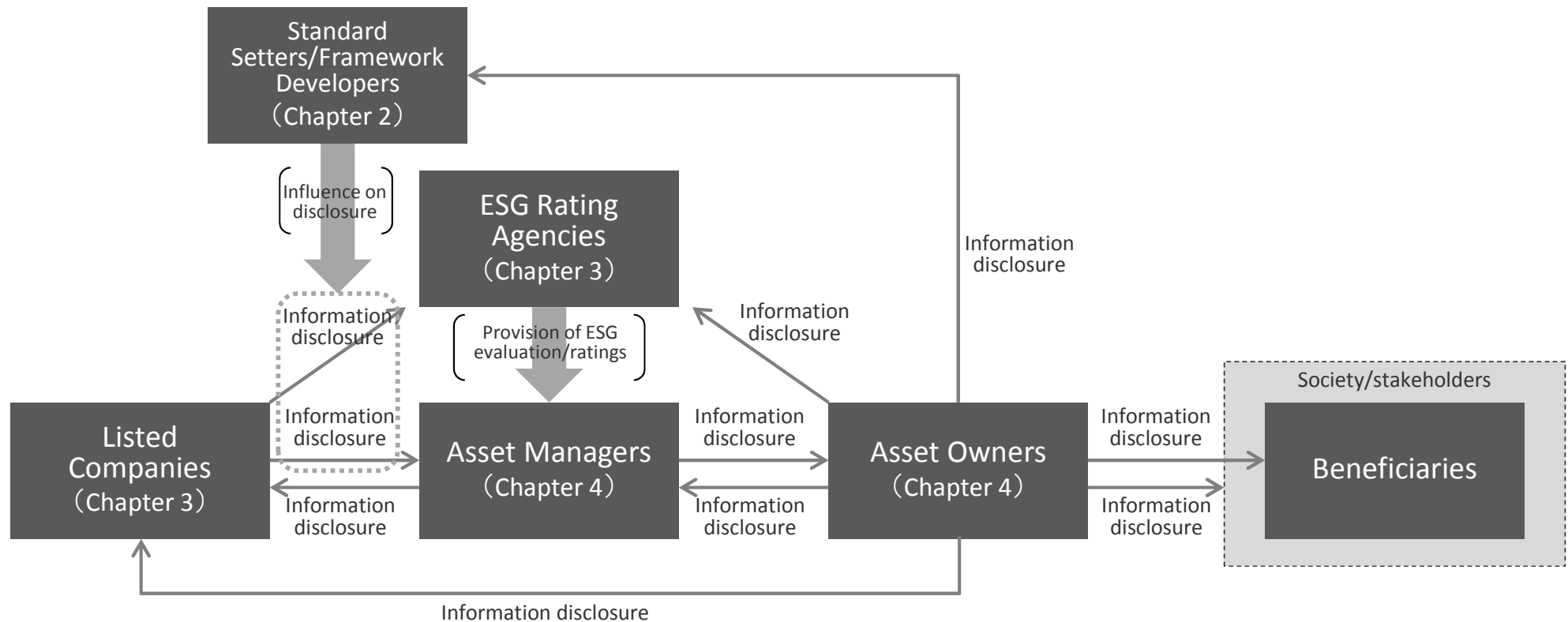
(Each part is described in the indicated chapter of the research report.)



## Structure of the Research (ii)

- ESG information disclosures by major players within the investment chain, and the relationship with this research report are shown below:

**Fig: Major ESG Information Disclosure in Investment Chain and relationship with the Research**







Note: This figure illustrates only publicly available ESG information disclosure such as via website, and does not include any direct information provision, etc. under closed situation.  
Source: Prepared by Nissay Asset Management Co., Ltd.

1	Overview of the Research
2	Comparative Analysis of ESG Information Disclosure Frameworks/Standards
3	Analysis of Corporate Disclosure Status on the common parts of ESG Information Disclosure Frameworks/Standards
4	Analysis of ESG information disclosure by institutional investors
5	Key Findings and Recommendations

# List of Major Global and Japanese ESG Information Disclosure Frameworks/Standards to be Surveyed (i)

- The backgrounds and characteristics of the disclosure frameworks/standards to be surveyed are shown below:

Target	Name	Type of disclosure information	Key backgrounds and features	Reason to be surveyed
Global companies	International Integrated Reporting Framework 	Financial & ESG overall	<ul style="list-style-type: none"> <li>Created a new form of reporting, an integrated report that discloses corporate financial and non-financial information in an integrated manner.</li> <li>Information disclosure for investors.</li> <li>Prepared based on principle-based approach without any predefined disclosure items and/or indicators.</li> <li>Led by accounting organizations for the development.</li> </ul>	<ul style="list-style-type: none"> <li>Utilized by many companies now.</li> </ul>
	GRI Standards 	ESG overall	<ul style="list-style-type: none"> <li>The first edition was published in 2000, and this is one of ESG information disclosure frameworks/standards with the longest history in the world.</li> <li>Information disclosure for multi-stakeholders including investors.</li> <li>Disclosure items and indicators are defined for each of economic, environmental, and social aspects pursuant to rule-based approach (however, reporting companies are not required to disclose all items and indicators, but to disclose only items that are deemed material (important) to them.</li> <li>An environmental NGO leads the establishment of GRI.</li> <li>The structure changed in 2015 and the Global Sustainability Standards Board (GSSB) was established as an independent standard setting body.</li> </ul>	<ul style="list-style-type: none"> <li>Long history and Utilized by many companies now.</li> </ul>
	SASB Standards 	ESG overall	<ul style="list-style-type: none"> <li>Specific disclosure items and indicators are defined for each of 77 industries pursuant to rule-based approach (yet, the final decision as to which topics are financially material rests with the company.).</li> <li>Information disclosure for investors.</li> <li>At the development stage, they aimed at disclosure standards for US companies, but the status finally changed as disclosure standards for companies in global.</li> <li>For the purpose of development, practitioners were widely asked to participate in the standards consultation process, organized by sector/industry. Finally, more than 2,800 practitioners (businesses, financial analysts, consultants, etc.) were involved in the development.</li> <li>SASB's governance structure includes an independent standards setting board (the SASB), along with the SASB Foundation Board which is responsible for overall management.</li> </ul>	<ul style="list-style-type: none"> <li>Drawing attention as a novel standard whose codified standards were released in 2018.</li> </ul>
	TCFD Final Recommendations 	E (Climate change)	<ul style="list-style-type: none"> <li>Recommended disclosure of climate-related financial information in the mainstream annual financial report, etc.</li> <li>Disclosure of information for financial sector including investors (and also requiring information disclosure by financial sector).</li> <li>Basically, it is prepared based on the principle-based approach, but it clearly states that greenhouse gas emissions should be disclosed.</li> <li>Sector-specific guidance has also been developed for certain sectors that are particularly relevant to climate change.</li> <li>Developed by the task force established by the Financial Stability Board (FSB).</li> </ul>	<ul style="list-style-type: none"> <li>Drawing attention as a disclosure framework dedicated to climate-related financial information.</li> </ul>

Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of relevant data available.

## List of Major Global and Japanese ESG Information Disclosure Frameworks/Standards to be Surveyed (ii)

- The backgrounds and characteristics of the disclosure frameworks/standards to be surveyed are shown below:

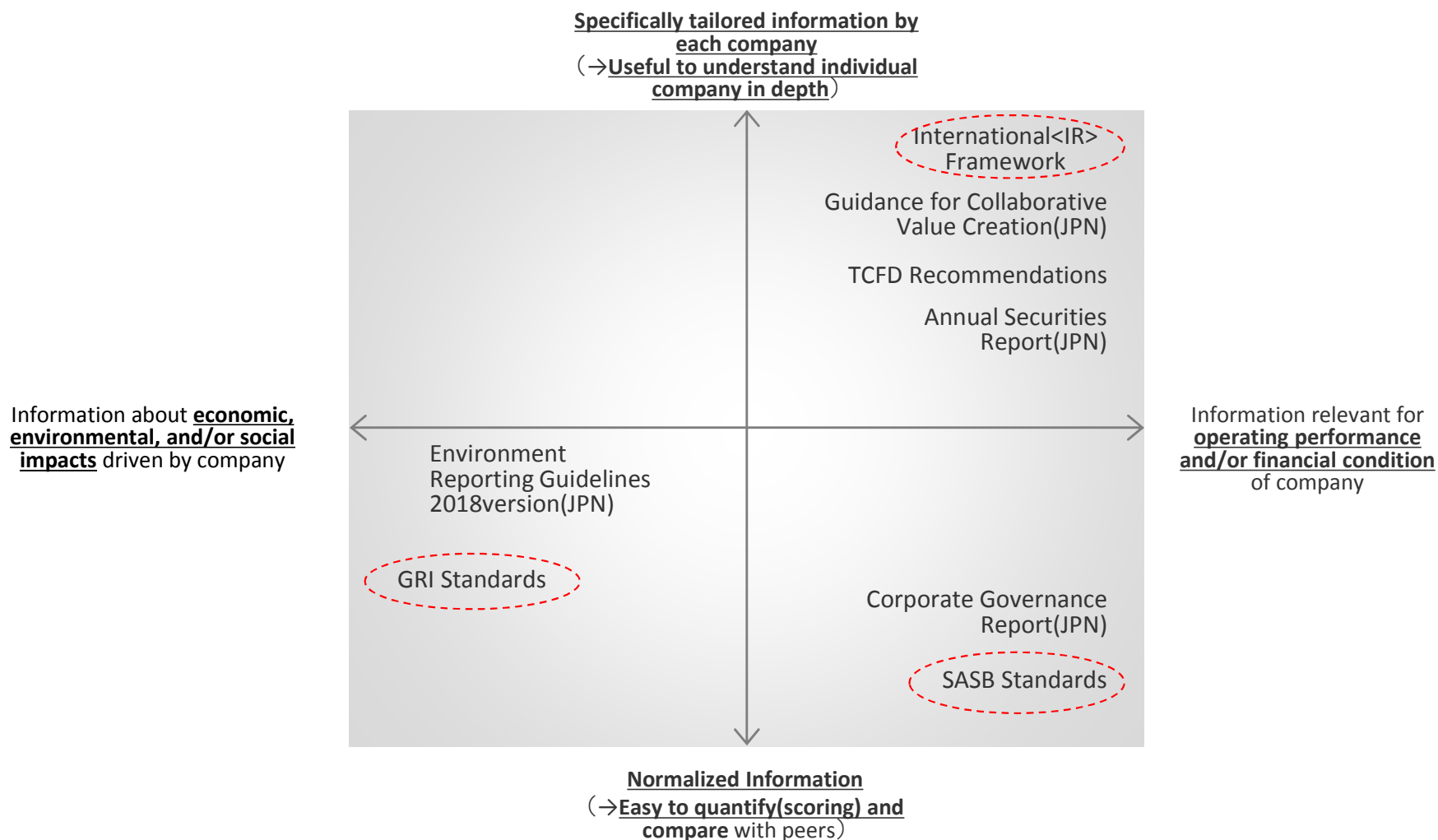
Target	Name	Type of disclosure information	Key backgrounds and features	Reason to be surveyed
Japanese companies	Guidance for Collaborative Value Creation	Financial & ESG overall	<ul style="list-style-type: none"> <li>Prepared by the Ministry of Economy, Trade and Industry as a guide to organize information to be communicated for to investors (business philosophy, business model, strategy, and governance, etc.) in an integrated and systematic manner and to improve the quality of information disclosure and dialogue with investors.</li> <li>Prepared based on principle-based approach without any predefined disclosure items and/or indicators.</li> </ul>	<ul style="list-style-type: none"> <li>Japanese companies draw attention it as a guidance defined by the Ministry of Economy, Trade and Industry.</li> </ul>
	Environmental Reporting Guidelines 2018 version	E	<ul style="list-style-type: none"> <li>Since the “Environmental Report Preparation Guidelines: How to Make Easy-to-Understand Environmental Reports” was formulated in 1997, the contents have been regularly revised</li> <li>The Environmental Reporting Guideline 2018 specifically illustrates indicators to be disclosed regarding the environmental impact caused by corporate activities.</li> </ul>	<ul style="list-style-type: none"> <li>Long history and has impacted on Japanese companies' environmental information disclosure.</li> </ul>
	Annual Securities Report	Financial & ESG overall	<ul style="list-style-type: none"> <li>Required by Financial Instruments and Exchange Act to provide sufficient information for investors to make investment decisions.</li> <li>Toward the improvement of non-financial information disclosure in the annual securities report, “Principles for the Disclosure of Narrative Information,” which provide a guidance about desirable disclosure and an approach for disclosure, was published in March 2019.</li> <li>Prepared based on principle-based approach with a limited predefined indicators.</li> </ul>	<ul style="list-style-type: none"> <li>Representative regulatory disclosure in Japan. Improvement of non-financial information is being promoted in line with the policy.</li> </ul>
	Corporate Governance Report	G	<ul style="list-style-type: none"> <li>Required by the stock exchange to provide information about the status of corporate governance for investors.</li> <li>Specific disclosure items and indicators regarding corporate governance are defined pursuant to rule-based approach.</li> </ul>	<ul style="list-style-type: none"> <li>Representative regulatory disclosure about corporate governance in Japan.</li> </ul>

Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of relevant data available.

# Classification of Major Global/Japanese ESG information disclosure Frameworks/Standards

- Classification of the global and Japanese ESG information disclosure frameworks/standards is shown below:
- Internationally well-known International <IR> Framework, GRI Standards and SASB Standards are mapped in three different quadrants.

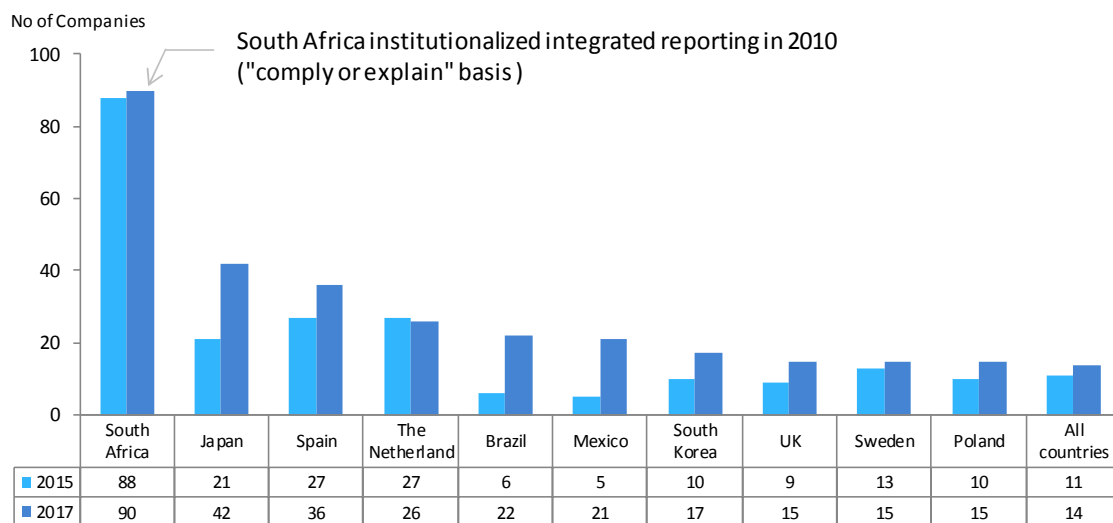
**Fig: Mapping of Global/Japanese ESG Information Disclosure Frameworks/Standards**



# Utilization by Companies (i) : International Integrated Reporting Framework

- IIRC officially announced that more than 1,600 companies in 65 countries worldwide published integrated reports.<sup>1</sup>
- Japan is the second position in publishing integrated reports within top 100 companies(left figure) following South Africa.
- More than 400 Japanese companies issue integrated reports (upper right), the largest number in the world.<sup>2</sup> However, they are concentrated in large companies (lower right).

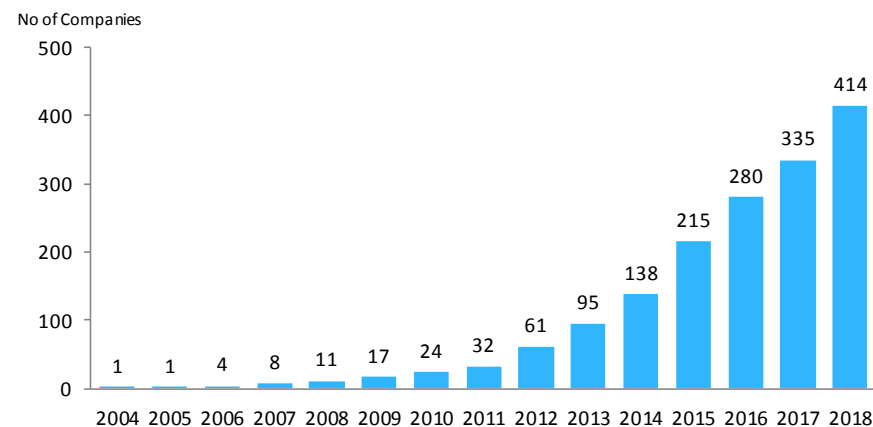
**Fig: Current Status of Integrated Reporting (Global)**



Note: The chart shows the number of companies issuing integrated reports out of the top 100 companies in sales in each country. "all countries" means the average of 49 countries.

Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of KPMG "The Road Ahead: the KPMG Survey of Corporate Responsibility Reporting 2017."

**Fig: Transition in Number of Issuers (Japan)**



Note: The number of issuers was counted based on reports issued by Japanese companies with the expression of integrated reporting in their editorial policies or with provision of comprehensive description of financial and non-financial information inferring that preparers are aware of integrated reporting.

Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of the Corporate Value Reporting Lab "List of Companies Issuing the "Self-declared Integrated Report in Japan (updated on February 8, 2019)".

**Fig: Breakdown by Size of Issuers (Japan; 2018)**

Category	No of companies	Issuers of integrated reports	%
TOPIX Core30	30	21	70%
TOPIX Large70	70	49	70%
TOPIX Mid400	401	203	51%
TOPIX Small 1	500	74	15%
TOPIX Small 2	1,108	40	4%
Others(other markets/non-listed)	-	27	-

Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of the Corporate Value Reporting Lab "List of Companies Issuing the "Self-declared Integrated Report in Japan (updated on February 8, 2019)".

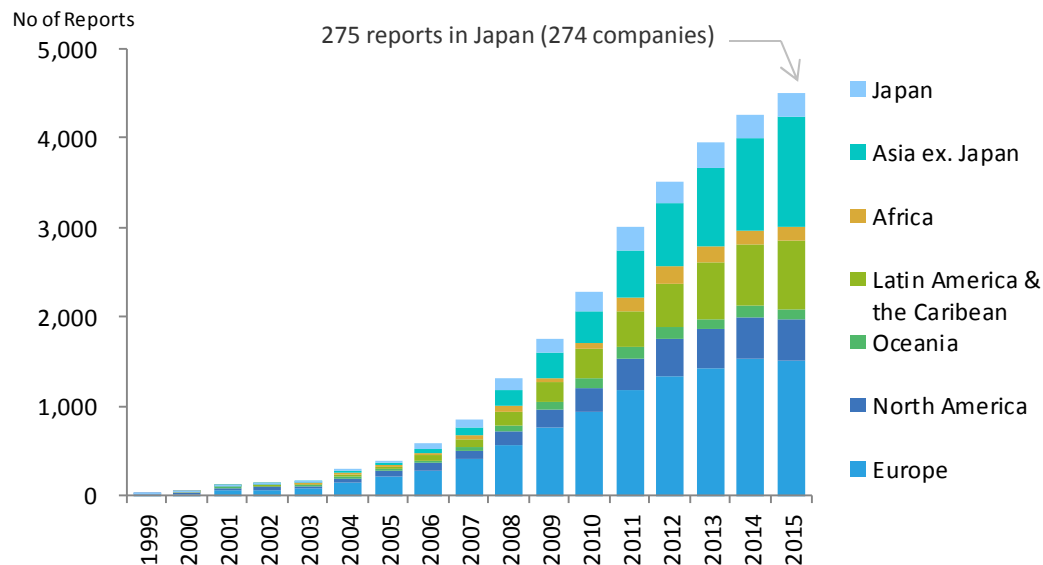
<sup>1</sup> <http://integratedreporting.org/news/new-academic-database-points-to-clear-benefits-in-adopting-integrated-reporting/>

<sup>2</sup> [http://www.edge-intl.co.jp/library/img/s2017\\_40ja.pdf](http://www.edge-intl.co.jp/library/img/s2017_40ja.pdf)

## Utilization by Companies (ii) : GRI Standards

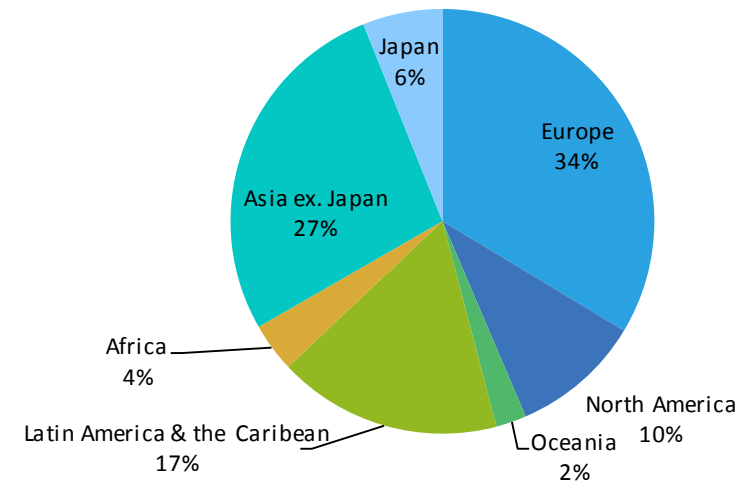
- The number of reports registered on the GRI website is more than 4,500 (as of 2015; lower left).
- By region, Europe is the largest (upper right).
- There are 274 Japanese companies publishing the reports that comply with or refer to GRI. However, they are concentrated in large companies (lower right).

**Fig: Number of Reports Complying with or Referring to GRI Standards**



Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of GRI website.

**Fig: Breakdown by Region (2015)**



Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of GRI website

**Fig- Breakdown by Size of Issuers (Japan; 2015)**

Category	No of companies	Issuers of GRI reports	%
TOPIX Core30	30	21	70%
TOPIX Large70	70	52	74%
TOPIX Mid400	401	130	32%
TOPIX Small 1	500	36	7%
TOPIX Small 2	1,108	16	1%
Others(other markets/non-listed)	—	19	—

Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of GRI website.

## Utilization by Companies (iii) : SASB Standards

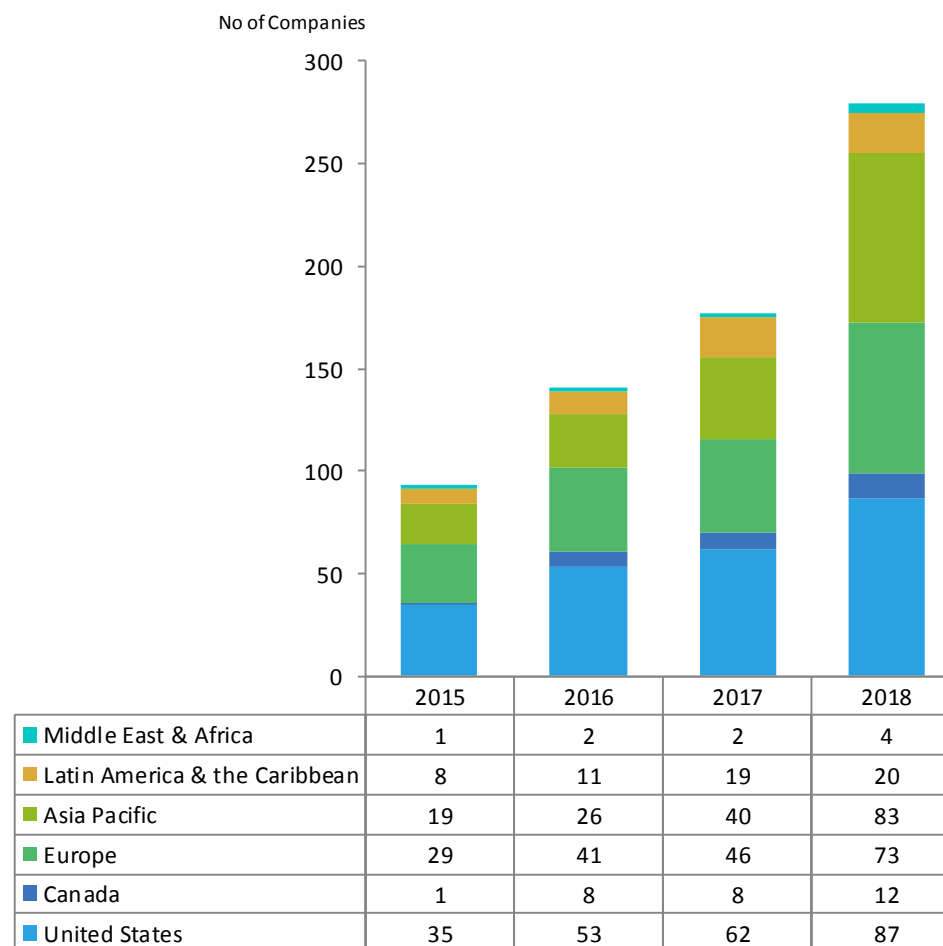
- 47 companies have disclosed the information in accordance with SASB Standards including provisional version since 2017 (as of March 2019).
- The policies significantly changed towards disclosure standards for all companies across the world instead of ones for US companies, and remarkably penetrated into non-US companies (69% of companies referring to SASB Standards are non-US.)

**Fig: Companies Disclosing SASB Indicator since 2017**

Apache Corp	U.S.	Kellogg Co	U.S.
ARC Resources Ltd	Canada	Kilroy Realty Corp	U.S.
ArcelorMittal	Luxembourg	Kinder Morgan Inc	U.S.
Atlantica Yield PLC	Spain	LG Chem Ltd	South Korea
Bank of Montreal	Canada	LG Household & Health Care Ltd	South Korea
BCE Inc.	Canada	Masco Corp	U.S.
Bloomberg LP	U.S.	Medtronic PLC	Ireland
Boston Properties Inc	U.S.	Merck & Co Inc	U.S.
Breckinridge Capital Advisors	U.S.	Mermaid Maritime PCL	Thailand
CBRE Group Inc.	U.S.	Mosaic Company	U.S.
Cia. De Saneamento do Parana	Brazil	Motorola Solutions Inc	U.S.
<b>Daiwa Securities Group Inc</b>	<b>Japan</b>	Nike Inc	U.S.
Diageo PLC	UK	<b>Nippon Telegraph &amp; Telephone Co</b>	<b>Japan</b>
Digital Realty Trust Inc	U.S.	NRG Energy Inc	U.S.
Emera Inc	Canada	Peugeot SA	France
Enbridge Inc	Canada	Schneider Electric SE	France
Etsy Inc	U.S.	Shorenstein Properties LLC	U.S.
Gap Inc	U.S.	SK Telecom Co Ltd	South Korea
General Motors Co.	U.S.	Southwestern Energy Co.	U.S.
Go! Linhas Aereas Inteligentes	Brazil	Waste Management Inc	U.S.
GS Caltex Corp	South Korea	Weatherford International PLC	Switzerland
Hewlett Packard Enterprise Co.	U.S.	Westpac Banking Corp	Australia
Host Hotels & Resorts Inc	U.S.	ZAGG Inc	U.S.
JetBlue Airways Corp	U.S.		

Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of the data and materials provided by SASB.

**Fig: Number of Companies Referring to SASB in Disclosure**

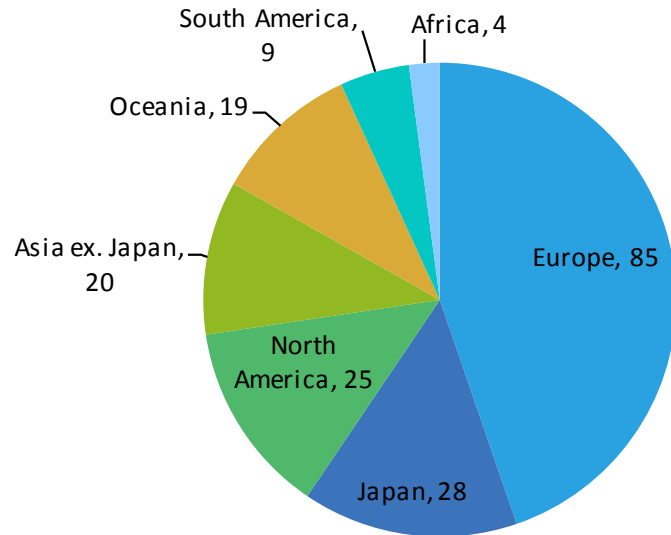


Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of the data and materials provided by SASB.

## Utilization by Companies (iv) : TCFD Final Recommendations

- 190 industrial companies are in the supporters list of TCFD (as of March 4, 2019).
- Europe is the largest, followed by Japan.
- In Japan, there are 61 supporters, including 28 industrial companies.

**Fig: Breakdown of TCFD Supporters (industrial companies) by Region**



Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of the TCFD website.

**Fig: List of TCFD Supporters in Japan**

### Industrial companies

Kokusai Kogyo Co., Ltd.  
Sumitomo Chemical  
Nomura Research Institute, Ltd.  
Konica Minolta, Inc.  
NEC Corporation  
Hitachi, Ltd.  
JTEKT CORPORATION  
Mitsubishi Corporation  
Sekisui House, Ltd.  
Sumitomo Forestry Co., Ltd.  
Ricoh Company, Ltd.  
Sojitz Corporation  
Daiwa House Industry Co., Ltd.  
Kawasaki Kisen Kaisha, Ltd.  
Mitsubishi Chemical Holdings Corporation  
MARUI GROUP CO., LTD.  
Mitsui O.S.K. Lines, Ltd.  
Nikon Corporation  
FUJIFILM Holdings Corporation  
Kirin Holdings Company, Limited  
Mitsui & Co., Ltd.  
NYKLine  
Mitsui Chemicals, Inc.  
SEKISUI CHEMICAL CO., LTD.  
OMRON Corporation  
Yokogawa Electric Corporation  
Kao Corporation  
Teijin Group

### Financial/professional services

Mitsubishi UFJ Financial Group, Inc.  
Mizuho Financial Group  
MS&AD Insurance Group Holdings, Inc.  
Sumitomo Mitsui Financial Group  
Tokio Marine  
SOMPO Holdings, Inc.  
Daiwa Securities Group  
Development Bank of Japan  
Nomura Holdings, Inc.  
Sumitomo Mitsui Trust Holdings, Inc.  
THE SHIGA BANK, LTD.  
Nikko Asset Management  
Dai-ichi Life Holdings, Inc.  
Japan Exchange Group, Inc.  
Resona Holdings, Inc.  
Government Pension Investment Fund (GPIF)  
Nippon Life Insurance Company  
Meiji Yasuda Life Insurance Company  
Nissay Asset Management Corporation  
Rating and Investment Information, Inc.  
Sumitomo Mitsui Trust Asset Management Co., Ltd.  
CSR Design Green Investment Advisory, Co., Ltd.  
E-Square Inc.  
Neural  
Sophia University Endowment

### Others

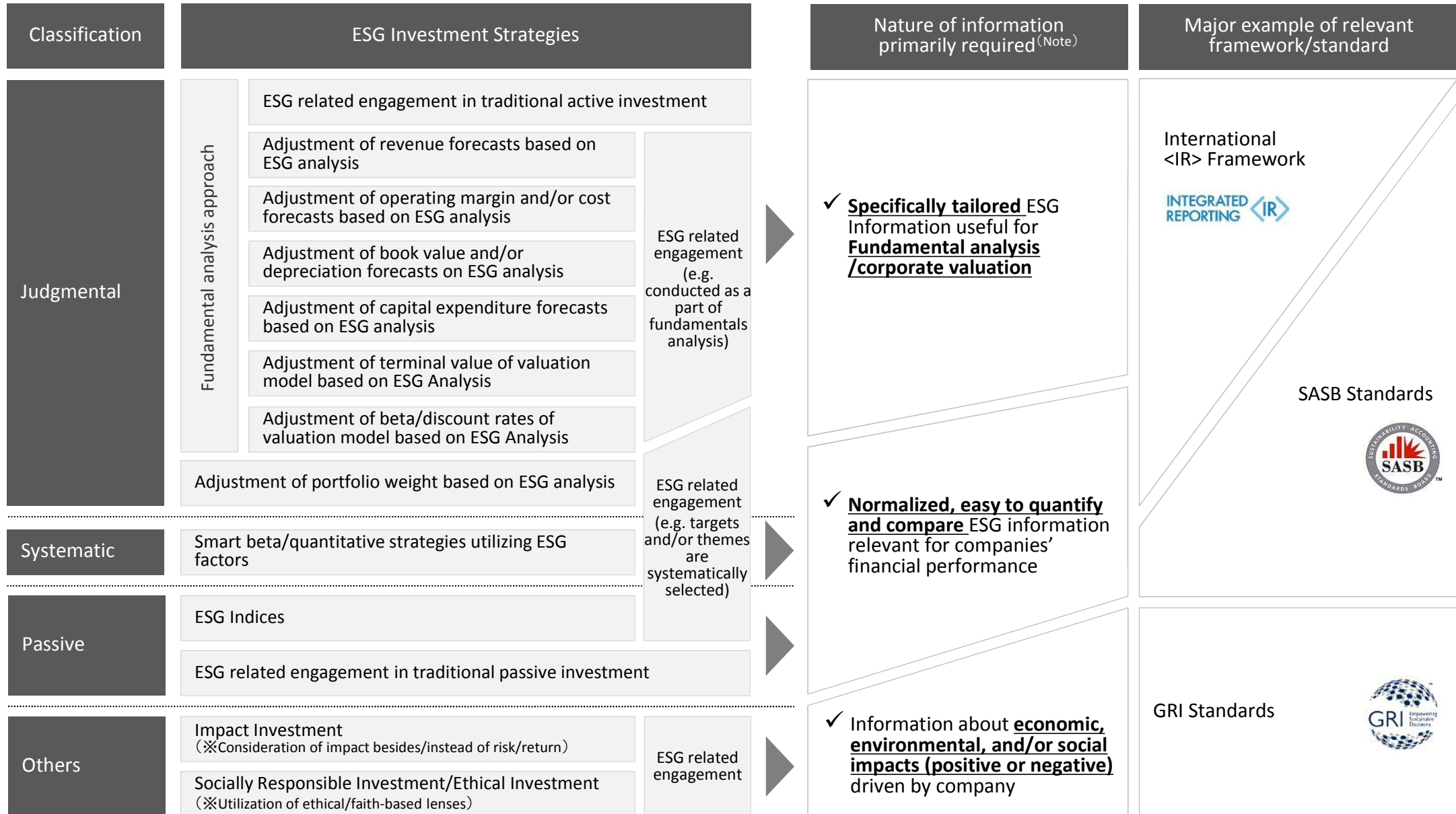
Japanese Institute of Certified Public Accountants (JICPA)  
Financial Services Agency (FSA)  
Ministry of Environment (MOE) (Japan)  
Japanese Bankers Association  
Ministry of Economy, Trade and Industry (METI)  
The Investment Trusts Association, Japan (JITA)  
Japan Investment Advisers Association (JIAA)  
Japan Securities Dealers Association

Note: Listed in the order of the date they announced to support TCFD (in alphabetical order if announced on the same date).

Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of the TCFD website.

# Meaning of the “Common Parts” of Different ESG Information Disclosure Frameworks/Standards: Diverse ESG Investment Strategies and Information Needs.

- Investors as end-users of disclosed ESG information adopt different ESG investment strategies, and require different nature of ESG information.

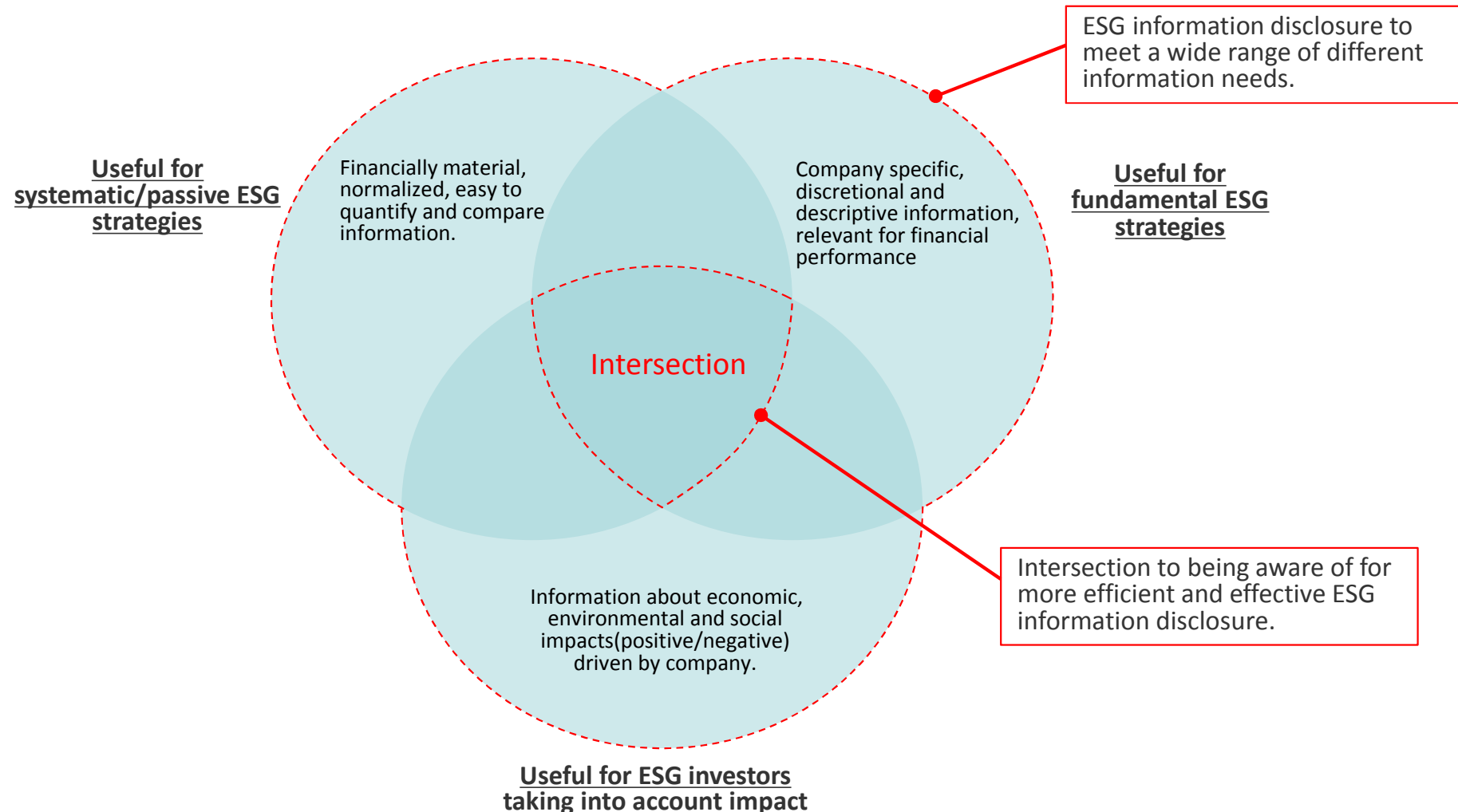


Note: The figure indicates only a primal need of ESG information for each strategy, and thus other nature of ESG information, which are not mentioned above, might be utilized in some cases.  
Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of CFA Institute & PRI (2018) “Guidance and case studies for ESG integration: equities and fixed income” and other various data.

## Meaning of the “Common Parts” of Different ESG Information Disclosure Frameworks/Standards: Conceptual Diagram

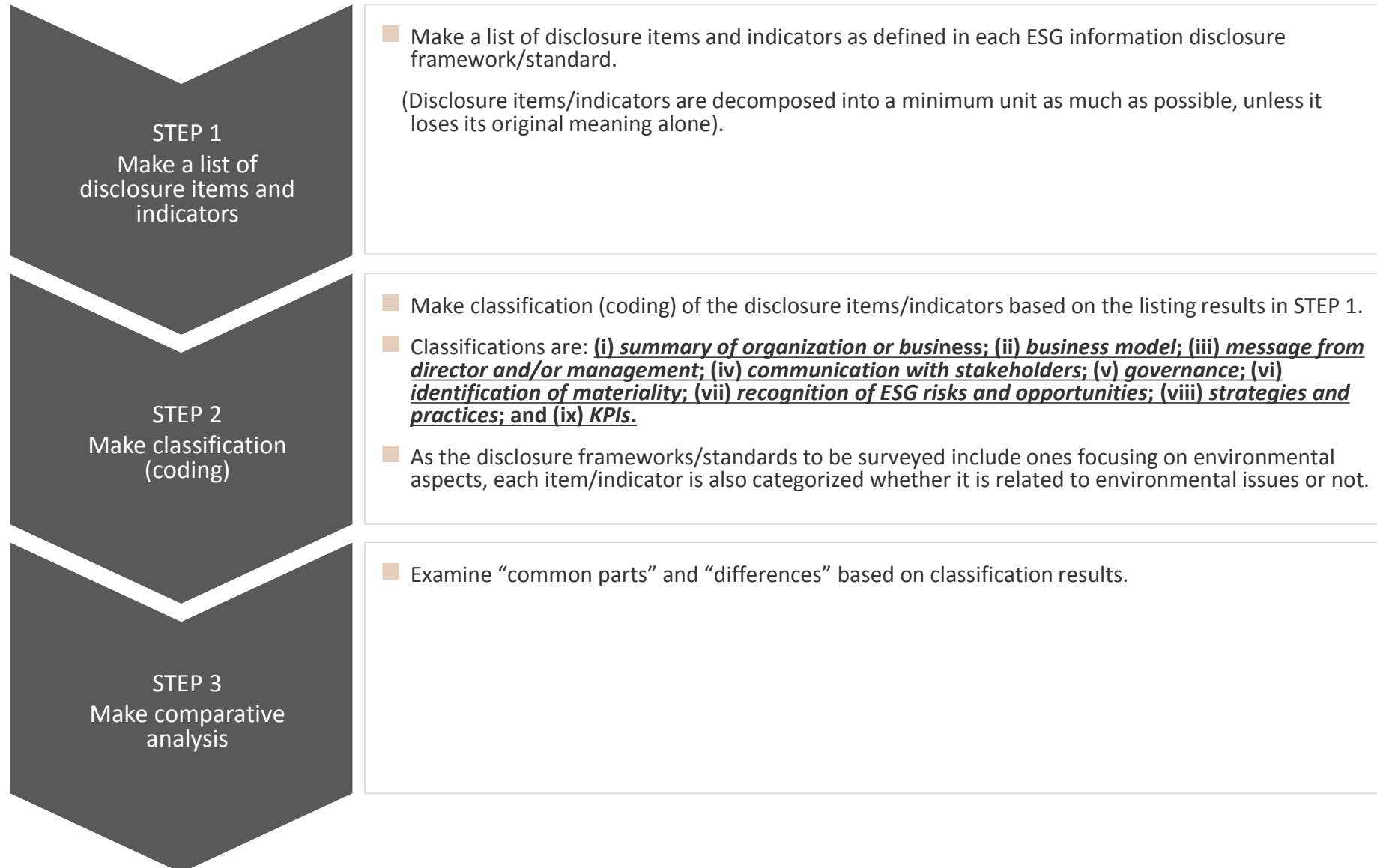
- From corporate IR perspective, comprehensive disclosure to meet a wide range of ESG information needs would be ideal.
- However, In the case of limited resources, it would be important to be aware of, and focus on the disclosure of the “intersection.”
- Beside that, expand information disclosure for each specific end-user, based on the understanding of the variety of ESG investment strategies.

**Fig: Difference in Nature of Information and the “Intersection”**



# Procedures for Comparative Analysis

- Comparative analysis is carried out in the following three steps:

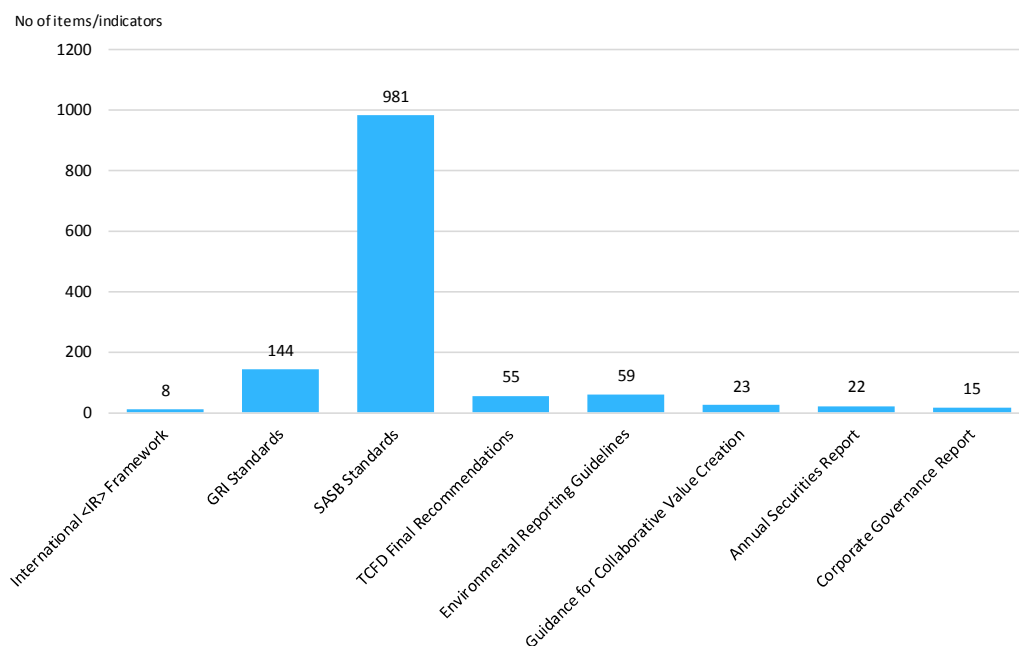


# Listing Results of Disclosure Items and Indicators

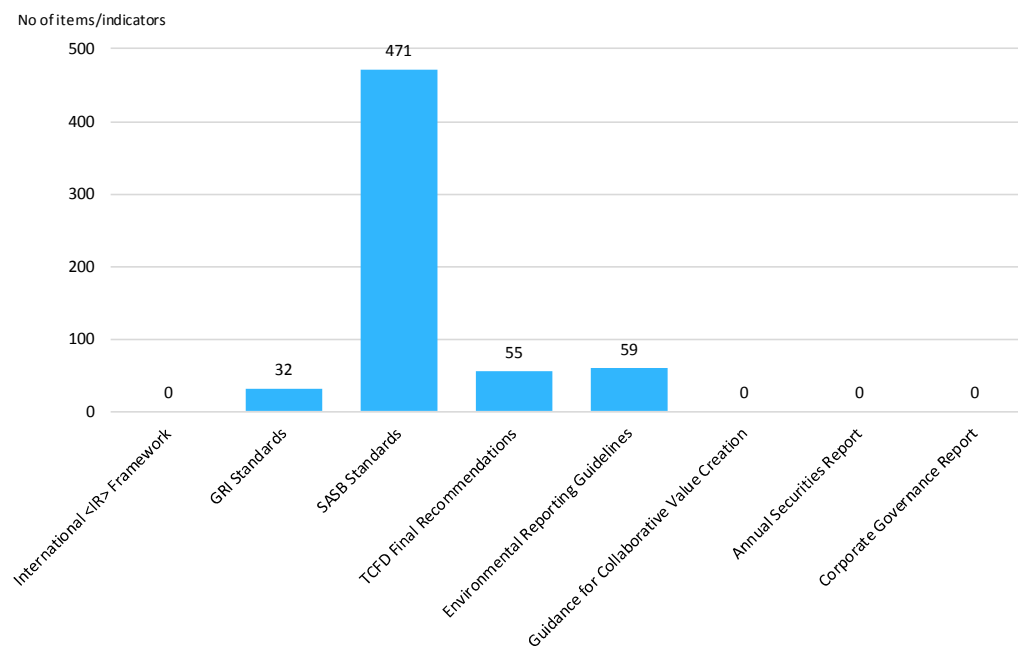
- As a result of listing, a total of 1,307 items and indicators were obtained.
- SASB has the biggest number, since the figure shows a gross number of items/indicators for SASB's 77 industry-based ones. (Note that SASB Standards have an average of only 13 items/indicators for each industry)

**Fig: Number of Items and Indicators set by ESG Information Disclosure Frameworks/Standards**

## ESG total



## Environment-related only

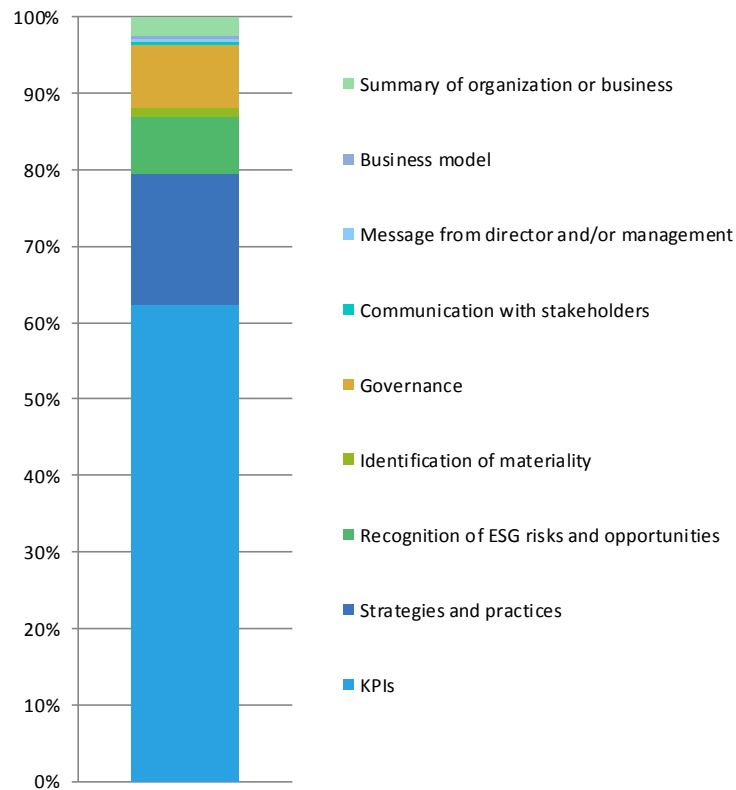


Note: There may be some cases where same disclosure items/indicators are classified into multiple categories, and such items/indicators are redundantly counted.  
Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of each ESG information disclosure frameworks/standards.

# Coding Results

- Coding results of disclosure items and indicators are as shown below:
- “KPIs” accounts for more than a half (due to the characteristics that SASB Standards is mainly composed of KPIs).
- If added with “governance,” “recognition of ESG risks and opportunities” and “strategies and practices,” it accounts for more than 95%.

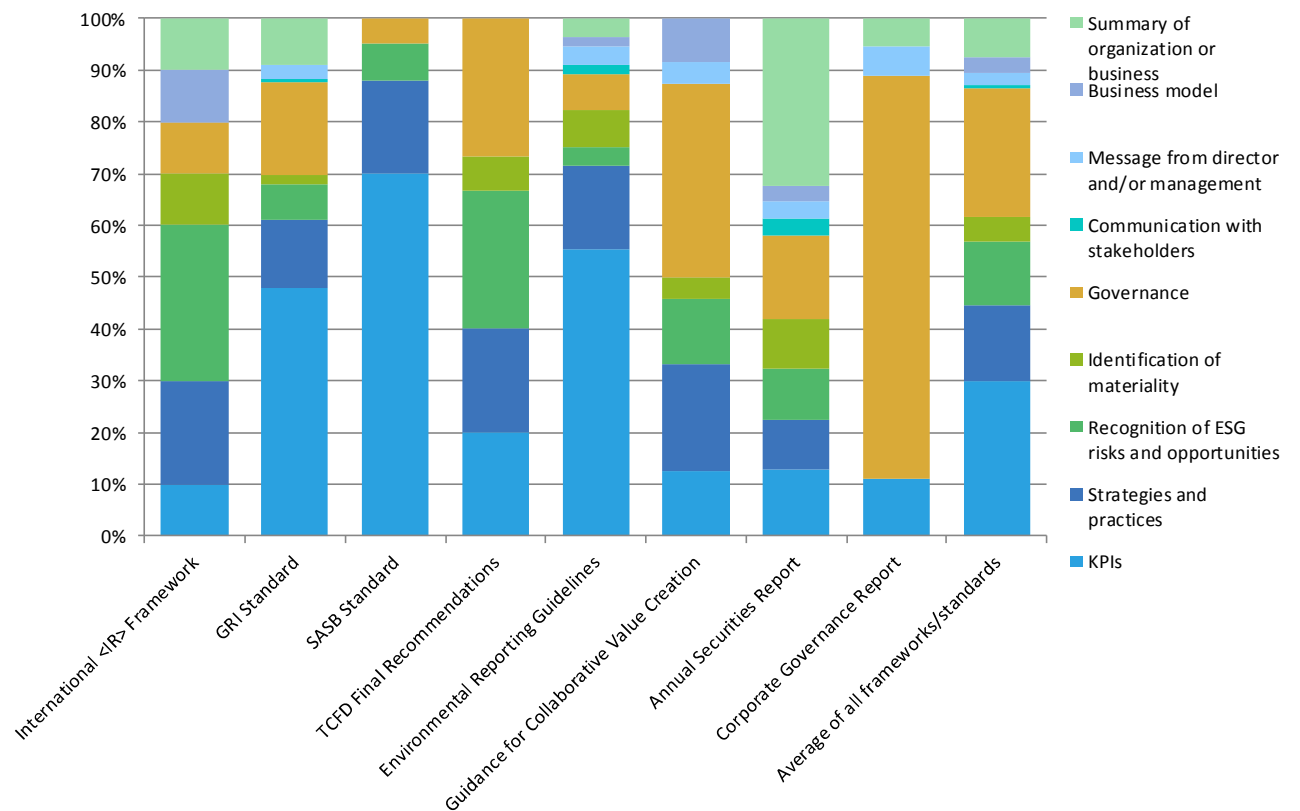
**Fig: Proportion of Disclosure Items/Indicators (Overall)**



Note: There may be some cases where single disclosure items/indicators are classified into multiple categories, and such items/indicators are redundantly counted.

Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of each ESG information disclosure frameworks/standards.

**Fig: Proportion of Disclosure Items/Indicators by Frameworks/Standards**



Note 1: Illustrative examples of metrics for certain sectors are not counted for TCFD final recommendations.

Note 2: There may be some cases where same disclosure items/indicators are classified into multiple categories, and such items/indicators are redundantly counted.

Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of each ESG information disclosure frameworks/standards.

# “Common Parts” among the Major Global ESG Information Disclosure Frameworks/Standards

- Disclosure regarding “governance,” “identification of materiality,” “recognition of ESG risks and opportunities,” “strategies and practices” and “KPIs” are commonly required.
- Disclosure of “business model” is a feature of International <IR> Framework (details are to be mentioned later).
- SASB Standards recommend climate scenario analysis besides TCFD Final Recommendations (details are to be mentioned later).

	International <IR> Framework	GRI Standards	SASB Standards	TCFD Final Recommendations
Mainly qualitative descriptive information	Summary of organization or business	○	—	—
	Business model (Comprehensive and systematic description)	○	—	—
	Message from director and/or management	—	○	—
	Communication with stakeholders	—	○	—
	Governance (Structure, discipline and mechanism etc.)	○	○	○ * Climate change only
	Identification of materiality (Identification of important ESG issues)	○	○	○ (Identify sectors that are more likely to be financially impacted by climate change)
	Recognition of ESG risks and opportunities (including recognition and prospects of financial impacts)	○	○	○ * Climate change only
Quantitative information	Utilization of climate scenario analysis	—	○ * Recommend that certain sectors conduct the scenario analysis	○
	Strategies and practices (For material issues)	○	○	○ * Climate change only
	KPIs (For material issues)	○ * Specific KPIs are not provided	○	○ * Climate change only

Note: Disclosure items and indicators of each ESG information disclosure frameworks/standards are classified into the 10 categories considered to be most relevant. However, it does not necessarily mean that the items and indicators in each category with a circle match exactly with each other.

# “Common Parts” among the Major Global ESG Information Disclosure Frameworks/Standards: Comparison with Japanese Disclosure Frameworks/Standards

- Environmental Reporting Guidelines, Guidance for Collaborative Value Creation and Annual Securities Report also require the disclosure of the common items identified on the preceding page.

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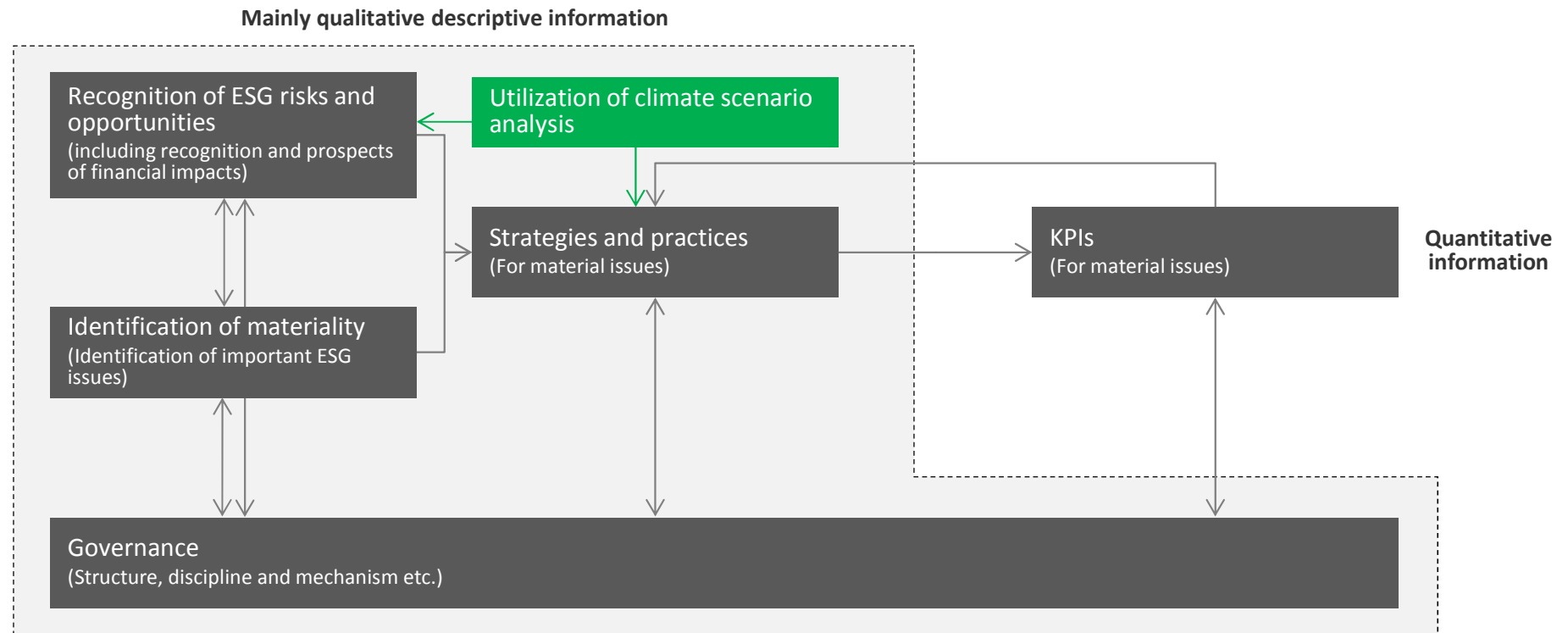
		International <IR> Framework	GRI Standards	SASB Standards	TCFD Final Recommendations	Guidance for Collaborative Value Creation	Environmental Reporting Guidelines	Annual Securities Report	Corporate Governance Report
Mainly qualitative descriptive information	Summary of organization or business	○	○	—	—	—	○ * Environment only	○	○
	Business model (Comprehensive and systematic description)	○	—	—	—	○	○ * Environment only	○	—
	Message from director and/or management	—	○	—	—	—	○ * Environment only	○	—
	Communication with stakeholders	—	○	—	—	○	○ * Environment only	○ * Special remarks about relationship with labor union, etc.	○
	Governance (Structure, discipline and mechanism etc.)	○	○	○	○ * Climate change only	○	○ * Environment only	○	○
	Identification of materiality (Identification of important ESG issues)	○	○	○	○ * Climate change only	○	○ * Environment only	○	—
	Recognition of ESG risks and opportunities (including recognition and prospects of financial impacts)	○	○	○	○ * Climate change only	○	○ * Environment only	○	—
	Utilization of climate scenario analysis	—	—	○	○	—	— * Not required to report, but referred	—	—
Quantitative information	Strategies and practices (For material issues)	○	○	○	○ * Climate change only	○	○ * Environment only	○	—
	KPIs (For material issues)	○ * Specific KPIs are not provided	○	○	○ * Climate change only	○ * Specific KPIs are not provided	○ * Environment only	○ * Provision of Specific KPIs is limited	○ * Governance only

Note: Disclosure items and indicators of each ESG information disclosure frameworks/standards are classified into the 10 categories considered to be most relevant. However, it does not necessarily mean that the items and indicators in each category with a circle match exactly with each other.

## Relationships among Common Five Items

- The relationships among “governance,” “identification of materiality,” “recognition of ESG risks and opportunities,” “strategies and practices” and “KPIs” identified as “common items” are as follows:
- From the corporate IR perspective, to be aware of such relationship and, if appropriate, to provide supplementary information about the relationship will encourage deeper understandings by information users (investors).

**Fig: Relationships among Commonly Required Five Categories**

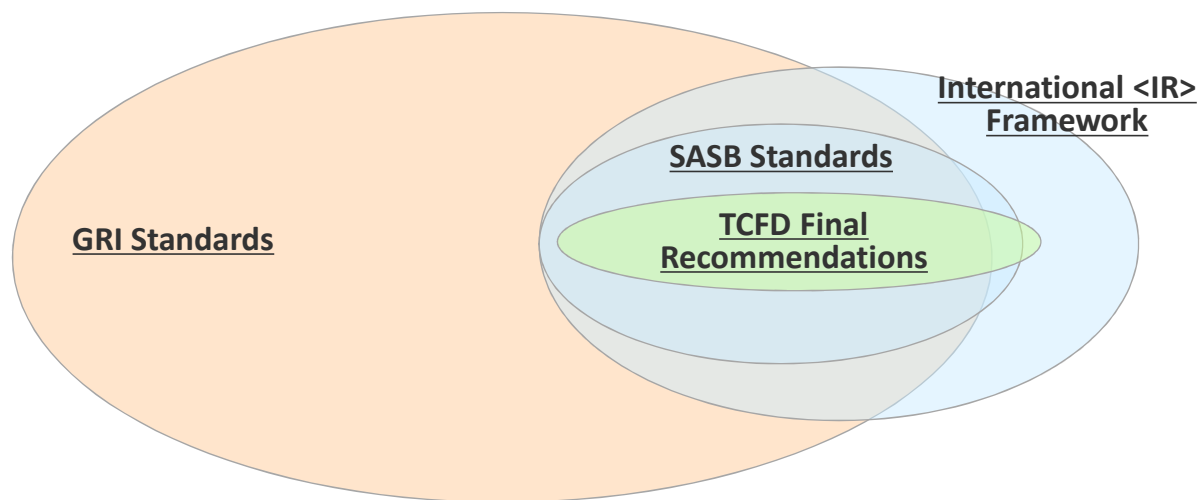


Source: Nissay Asset Management Co., Ltd.

## Discussions on “Common Parts”: Comparison of Materiality Concept

- Materiality can be broadly divided into two types: “materiality for multi-stakeholders” (including investors) and “materiality for investors” (or financial materiality).
- The materiality scope of SASB Standards is narrower than that of International <IR> Framework, since the SASB Standards require clear evidence of financial impact, etc. as the condition to set disclosure item/indicator.
- TCFD Final Recommendations place focus on climate related issues, which are included in SASB Standards covering ESG overall.
- As for ESG overall, most of SASB Standards are positioned in the overlapping parts(“common parts”).

**Fig: Scope of Disclosure Information based on Comparison of Materiality Concepts**



	GRI Standards	International <IR> Framework	SASB Standards	TCFD Final Recommendations
Classification	Multi-stakeholder materiality (including investors)	Investor materiality (Financial materiality)		
Definition and Concept of Materiality	<ul style="list-style-type: none"> <li>• Topic that reflects a reporting organization’s significant economic, environmental and social impacts; or</li> <li>• That substantively influences the assessments and decisions of stakeholders</li> </ul>	Matters that substantively affect the organization’s ability to create value over the short, medium and long term	<p>A minimum set of sustainability issues most likely to impact the operating performance or financial condition of the typical company in an industry, regardless of location</p> <p>* Setting disclosure items/indicators based on “evidence of investor interest” and “evidence of financial impact”</p>	<p>Material information which public companies have a legal obligation to disclose in their financial filings</p> <p>* In most G20 jurisdictions, public companies have a legal obligation to disclose material information including material climate-related information</p>

Sources: Prepared by Nissay Asset Management Co., Ltd. on the basis of "GRI 101: Foundation 2016", International Integrated Reporting Framework, SASB website, TCFD Final Recommendations and other data and materials.

## Discussions on “Common Parts”: Presence of “Common Parts”

- As for qualitative descriptive information regarding “*governance*,” “*recognition of ESG risks and opportunities*” and “*strategies and practices*,” only SASB Standards define specific disclosure items and indicators for each sector/industry. Hence, SASB Standards themselves are generally deemed as “common parts”.
- As for “*KPIs*,” both GRI and SASB Standards define specific disclosure items and indicators, and some of them are common (Note: TCFD Final Recommendations require disclosure of GHG emissions, which is common both to GRI and SASB).

	International <IR> Framework	GRI Standards	SASB Standards	TCFD Final Recommendations
Focus on qualitative descriptive information	Governance (Structure, discipline and mechanism etc.)	<ul style="list-style-type: none"> <li>General guidance applicable to all sectors/ESG issues</li> <li>General disclosure items applicable to all sectors/ESG issues (Certain ESG issue-specific disclosure items are included)</li> </ul>	<ul style="list-style-type: none"> <li>General guidance applicable to all sectors/ESG issues, and sector specific disclosure items on certain ESG issue</li> </ul> <p>Here are common parts</p>	<ul style="list-style-type: none"> <li>General guidance applicable to all sectors (There are additional guidelines for certain sectors)</li> </ul>
	Recognition of ESG risks and opportunities (including recognition and prospects of financial impacts))	<ul style="list-style-type: none"> <li>General guidance applicable to all sectors/ESG issues</li> <li>General disclosure items applicable to all sectors/ESG issues (Certain ESG issue-specific disclosure items are included)</li> </ul>	<ul style="list-style-type: none"> <li>Specific disclosure items for each sector and ESG issue</li> </ul> <p>Here are common parts</p>	<ul style="list-style-type: none"> <li>General guidance applicable to all sectors (There are additional guidelines for certain sectors)</li> </ul>
	Strategies and practices (For material issues)	<ul style="list-style-type: none"> <li>General guidance applicable to all sectors/ESG issues</li> <li>General disclosure items applicable to all sectors/ESG issues (Certain ESG issue-specific disclosure items are included)</li> </ul>	<ul style="list-style-type: none"> <li>Specific disclosure items for each sector and ESG issue</li> </ul> <p>Here are common parts</p>	<ul style="list-style-type: none"> <li>General guidance applicable to all sectors (There are additional guidelines for certain sectors)</li> </ul>
Quantitative information	KPIs (For material issues)	<ul style="list-style-type: none"> <li>General guidance applicable to all sectors/ESG issues</li> <li>Specific disclosure indicators for each ESG issue</li> </ul>	<ul style="list-style-type: none"> <li>Specific disclosure indicators for each sector and ESG issue</li> </ul> <p>Some of them are common parts</p>	<ul style="list-style-type: none"> <li>General guidance applicable to all sectors</li> <li>Disclosure of GHG emissions (There are examples of other KPIs for certain sectors)</li> </ul>

Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of each ESG information disclosure frameworks/standards.

# Discussions on “Common Parts”: Provisional “Common Parts” by Sector (Excerpt)

- This research extracts elements deemed to be common for each SASB sector at the individual disclosure item and indicator levels to the maximum extent possible (see the excerpt below, and the research report for all sectors).<sup>1</sup>
- Note that the analysis also found that it is often hard to draw a clear line between “common parts” and “differences” at the item/indicator levels.

## Consumer Goods Sector

### Descriptive information on “governance,” “recognition of risks and opportunities” and “strategies and practices.”

#### Disclosure items (descriptive information)

- Description of process to assess and efforts to manage risks regarding product safety, including chemicals and emerging materials contained in the products
- Description of process for legal and regulatory compliance regarding the use of chemicals for manufacturing of products
- Description of practices to reduce environmental impacts of product lifecycle and reduce end-of-life
- Description of practices to reduce environmental impacts of packaging
- Description of practices to reduce environmental impacts of product delivery
- Description of practices to identify and address data security risks
- Description of policies and practices relating to behavioral advertising and consumer privacy
- Description of the integration of environmental consideration into data center planning
- Description of risks related to water withdrawal and discharge, and effort to manage them
- Description of environmental and social risks such as occupational health and safety

### Quantitative information on “KPIs.”

#### Indicators (quantitative information)

- Energy consumption and the percentage of renewable energy
- GHG emissions associated with product delivery
- Water withdrawal and consumption, percentage in regions with high water stress
- Amount of end-of-life products collected, and percentage recycled
- Volume of packing materials used, of which recycled materials are used
- Employee turnover rate
- Employee engagement, percentage to the total number of employees
- Diversity of management and employees (gender, minorities, etc.)
- Average wage of in-store employees, and comparison to the minimum wage in the location
- Percentage of suppliers evaluated and/or audited from the environmental/social aspects (including the percentage of suppliers that meet the environmental/social standards, and/or that have obtained third-party certification)
- Number of products recalled and details thereof
- Number and details of violations of environmental regulations, product safety, personal information protection and other various laws and regulations

## Service Sector

### Descriptive information on “governance,” “recognition of risks and opportunities” and “strategies and practices.”

#### Disclosure items (descriptive information)

- Description of environmental management policies and policies to preserve ecosystem services
- Description of policies and initiatives to prevent harassment of workers in accommodation facilities
- Description of anti-money laundering policies and practices
- Description of policies to ensure professional integrity
- Description of policies to ensure intellectual property protection
- Description of policies and practices relating to behavioral advertising and consumer privacy
- Description of policies and practices to secure pluralism in news media contents
- Description of approach for ensuring journalistic integrity of news programming related to: (1) truthfulness, accuracy, objectivity, fairness, and accountability, (2) independence of content and/or transparency of potential bias, and (3) protection of privacy and limitation of harm
- Description of practices to identify and address data security risks
- Description of policies and practices relating to collection, usage and retention of information about customers
- Description of policies assure disclosure of key performance statistics to prospective students in advance of collecting any fees and discussion of outcomes

### Quantitative information on “KPIs.”

#### Indicators (quantitative information)

- Percentage of lodging facilities located in or near areas with high biodiversity value
- Energy consumption in casinos, accommodations and leisure facilities, and the percentage of renewable energy
- Water withdrawal and consumption in accommodation facilities, percentage in regions with high water
- Employee turnover rate
- Employee engagement in professional and commercial services, percentage to the total number of
- Diversity of management and employees (gender, minorities, etc.)
- Metrics for work-related injuries in leisure facilities (such as rate of lost-worktime injuries)
- Customer fatality and injury rate at leisure facilities
- Percentage of facilities inspected for safety in leisure facilities
- Average wage of lodging facility employees, and comparison to the minimum wage in the location
- Number and details of violations, if any, against laws and regulations of data security, personal information protection, labor, money laundering, slander, advertisement and indication and others

<sup>1</sup> This research extracts elements deemed to be common for each SASB sectors to the maximum extent possible, and then simplified the expressions, and integrated similar items and/or indicators into a single item and/or indicator. However, above tables do not ensure the rigor of commonality. Please refer to the original text of SASB Standards as well as GRI Standards for actual use.

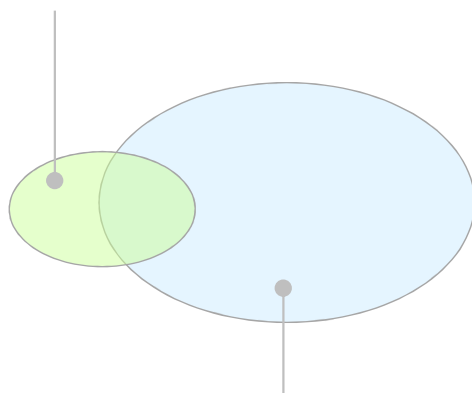
# Discussions on “Common Parts”: Remaining Issue to be Addressed

- While the existence of common parts at the conceptual level is clear on the one hand, when compared at the individual disclosure item and indicator level, it is hard to clearly draw a line between common parts and differences, since there is a mixture of “partially matched” items/indicators, those where “three or more items and indicators are intricately related,” and those where one is “subset” of the other.
- This complexity can cause confusion at corporate IR, and has also led to calls for debates regarding the improvement of consistency among frameworks/standards, as well as the convergence (unification) of them.

## Partially Matched

### SASB Standards: Oil & Gas (Exploration & Production)

Percentage of (1) proved and (2) probable reserves in countries that have the 20 lowest rankings in Transparency International’s Corruption Perception Index



### GRI Disclosure 205-1

The reporting organization shall report the following information:

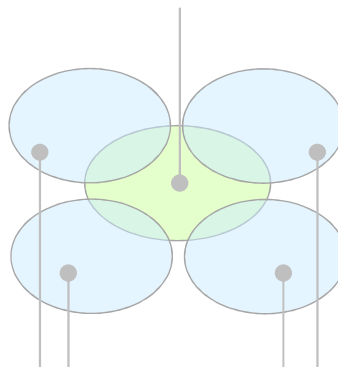
- Total number and percentage of operations assessed for risks related to corruption.
- Significant risks related to corruption identified through the risk assessment.

## 3 or More Intricately Related

### SASB Standards: Hardware

Percentage of Tier 1 supplier facilities audited in the RBA Validated Audit Process (VAP) or equivalent, by (a) all facilities and (b) high-risk facilities

\*The RBA audit covers labor of the suppliers (human rights), health and safety, environmental protection and ethics, etc.



**GRI Disclosure 308-2** Negative environmental impacts in the supply chain and actions taken

**GRI Disclosure 407-1** Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk

**GRI Disclosure 408-1** Operations and suppliers at significant risk for incidents of child labor

**GRI Disclosure 409-1** Operations and suppliers at significant risk for incidents of forced or compulsory labor

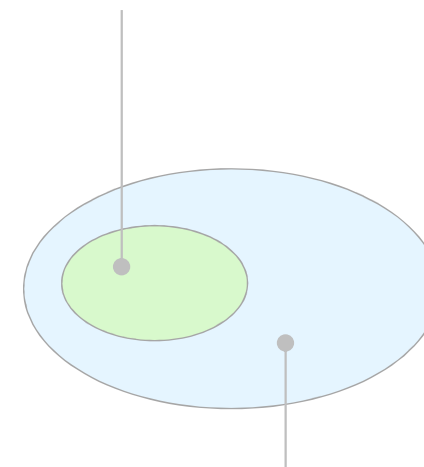
**GRI Disclosure 414-2** Negative social impacts in the supply chain and actions taken

\*In the above, specific reporting requirements are omitted.

## Subset

### SASB Standards: Automobiles

Number of vehicles recalled



### GRI Disclosure 416-2

Incidents of non-compliance concerning the health and safety impacts of products and services

- Total number of incidents of non-compliance with regulations and/or voluntary codes concerning the health and safety impacts of products and services within the reporting period, [...]
- If the organization has not identified any non-compliance with regulations and/or voluntary codes, a brief statement of this fact is sufficient.

## Discussions on Differences: Complementarity of International <IR> Framework

- International <IR> Framework provides principles and concepts (“framework”), instead of a “standard.”
- The framework has a complementary relationship, instead of a contradictory relationship, with other ESG information disclosure standards (GRI and SASB themselves also mention to this point <sup>1,2</sup>).
- Companies can pursue a higher quality of integrated reporting by effectively utilizing other standards.

*“The IIRC has established a high-level, principle-based framework for integrated reporting. From its inception, it was clear that it had no intention of becoming a standard setter for how specific pieces of information should be measured and reported. As that is the work of the other three organizations (note: GRI, SASB, etc.), their missions are clearly complementary to the IIRC. Each can provide input to a company about the nonfinancial information it decide to include in its integrated report.”*

Source: Eccles, R. G. and Krzus, M. P. (2014) *The integrated reporting movement: Meaning, momentum, motives, and materiality*. John Wiley & Sons, pp. 289. Underlines and notes are added by Nissay Asset Management Co., Ltd.

<sup>1</sup> <https://www.globalreporting.org/information/current-priorities/integrated-reporting/Pages/default.aspx>

<sup>2</sup> Based on information provided by SASB

- ## Business Models as defined in International <IR> Framework

The diagram illustrates the Business Model Innovation (BMI) process. At the center is a box labeled 'Business model' which is divided into 'Value proposition' and 'Revenue model'. This central box is flanked by 'Internal' and 'External' environments. The 'Internal' environment includes 'Financial', 'Manufacturing', 'Industrial', 'Human', 'Social and cultural', and 'Political' factors. The 'External' environment includes 'Market', 'Technology', 'Economic', 'Political', 'Social and cultural', and 'Environmental' factors. Arrows indicate a flow from left to right, representing 'Value creation (innovative, disruptive) over time'. The process is shown as a sequence of three stages, each with a 'Business model' box and a 'Value proposition' and 'Revenue model' section, connected by arrows.

(Reference Info.) Business models in business administration research

- 27

# Discussions on Differences: Differences between GRI and SASB Standards

- Both standards place focus on “KPIs” (In GRI and SASB, “KPIs” account for approximately 70% and 48% of the total disclosure items/indicators, respectively)
- However, due to the difference in vectors, there are some differences in settings of “KPIs.”

## GRI Standards

### Definition of ‘sustainability’

Development which meets the needs of the present without compromising the ability of future generations to meet their own needs  
(= **Sustainability of planet and social system**)

### Purpose of information disclosure

Reporting organization’s **economic, environmental, and/or social impacts** (organization’s positive and negative contributions towards the goal of sustainable development)

### Examples of almost common KPIs

**GRI 302: Energy 2016**  
Disclosure 302-1 **Energy consumption within the organization**  
a. **Total fuel consumption** within the organization **from non-renewable sources**, in joules or multiples, and including fuel types used.  
b. **Total fuel consumption** within the organization **from renewable sources**, in joules or multiples, and including fuel types used.

### Examples of different KPIs

**GRI 302: Energy 2016**  
Disclosure 302-5 **Reductions in energy requirements of products and services**  
a. **Reductions in energy requirements of sold products and services achieved** during the reporting period, in joules or multiples.  
b. Basis for calculating reductions in energy consumption, such as base year or baseline including the rationale for choosing it.  
c. Standards, methodologies, assumptions, and/or calculation tools used.

Degree of improvement in the eco-efficiency of products and services  
(= impacts on the planet)

## SASB Standards

Corporate activities that maintain or enhance the ability of the company to create value over the long term  
(= **Corporate Sustainability**)

Disclosure of a minimum set of sustainability issues most likely to impact the **operating performance or financial condition** of the typical company in an industry, regardless of location

**SASB Standards : 27 sectors, including Steel and Chemical**  
· (1) **Total energy consumed**, (2) percentage grid electricity, (3) **percentage renewable**

**SASB Standards : Automotive**  
· **Number** of (1) zero emission vehicles (ZEV), (2) hybrid vehicles, and (3) plug-in hybrid vehicles sold

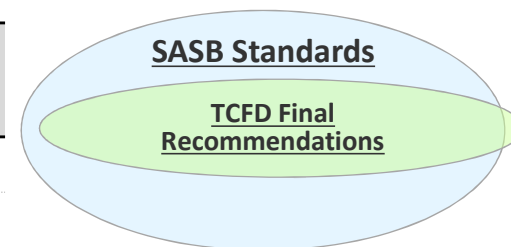
**SASB Standards : Automotive Parts**  
· **Revenue** from products designed to increase fuel efficiency and/or reduce emissions

The amount of sales or revenues of eco-efficient products and services  
(= Impacts on business results)

# Discussions on Differences: SASB Standards Serves as “Implementation Tool” for TCFD Disclosure

- TCFD is a framework, and SASB Standards can serve as an “implementation tool” when companies disclose information in line with TCFD Final Recommendations.<sup>1</sup>
- SASB set specific disclosure items and indicators including climate change related ones for relevant sectors/industries, and those can be utilized for TCFD disclosure.
- In certain cases, TCFD recommends disclosure regardless of materiality, which differs from SASB Standards.

	Recommended disclosures by TCFD	Targeted organization for disclosure by TCFD	Relevant disclosure items/indicators defined by SASB
Governance	a) Describe the board’s oversight of climate-related risks and opportunities.	<b>All organizations should disclose regardless of whether financially material or not</b>	○
	b) Describe management’s role in assessing and managing climate-related risks and opportunities.		○
Strategy	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	Organizations should disclose <b>if financially material</b> . However, <b>all non-financial group<sup>2</sup> with more than \$1 billion revenue should be disclosed</b>	○
	b) Describe the impact of climate related risks and opportunities on the organization’s businesses, strategy, and financial planning.		○
	c) Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2° C or lower scenario.		△ (partially addressed)
Risk Management	a) Describe the organization’s processes for identifying and assessing climate-related risks.	<b>All organizations should disclose regardless of whether financially material or not</b>	○
	b) Describe the organization’s processes for managing climate-related risks.		○
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization’s overall risk management.		○
Metrics and Targets	a) Disclose the metrics used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process.	Organizations should disclose <b>if financially material</b> . However, <b>all non-financial group with more than \$1 billion revenue should be disclosed</b>	○
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, <sup>3</sup> and the related risks.		△ (partially addressed)
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.		○



✓ While TCFD requires a wide range of companies to make climate scenario analysis, SASB only requires some sectors to make scenario analysis for specific items (more details will be discussed on the next page).

✓ While TCFD calls for disclosure of Scope 3 emissions, SASB does not generally require disclosure of Scope 3.

<sup>1</sup> SASB (2017) “Frequently Asked Questions: Understanding How SASB Standards and TCFD Recommendations are Complementary”

<sup>2</sup> Non-financial group: Energy, transportation, materials and buildings, agriculture, foods and forest products sector groups

<sup>3</sup> Scope 1: Direct emissions of greenhouse gases by companies; Scope 2: Indirect emissions associated with the use of electricity, heat and steam supplied by others; Scope 3: Indirect emissions other than Scope 2 above

# Discussions on Differences: Climate Scenario Analysis

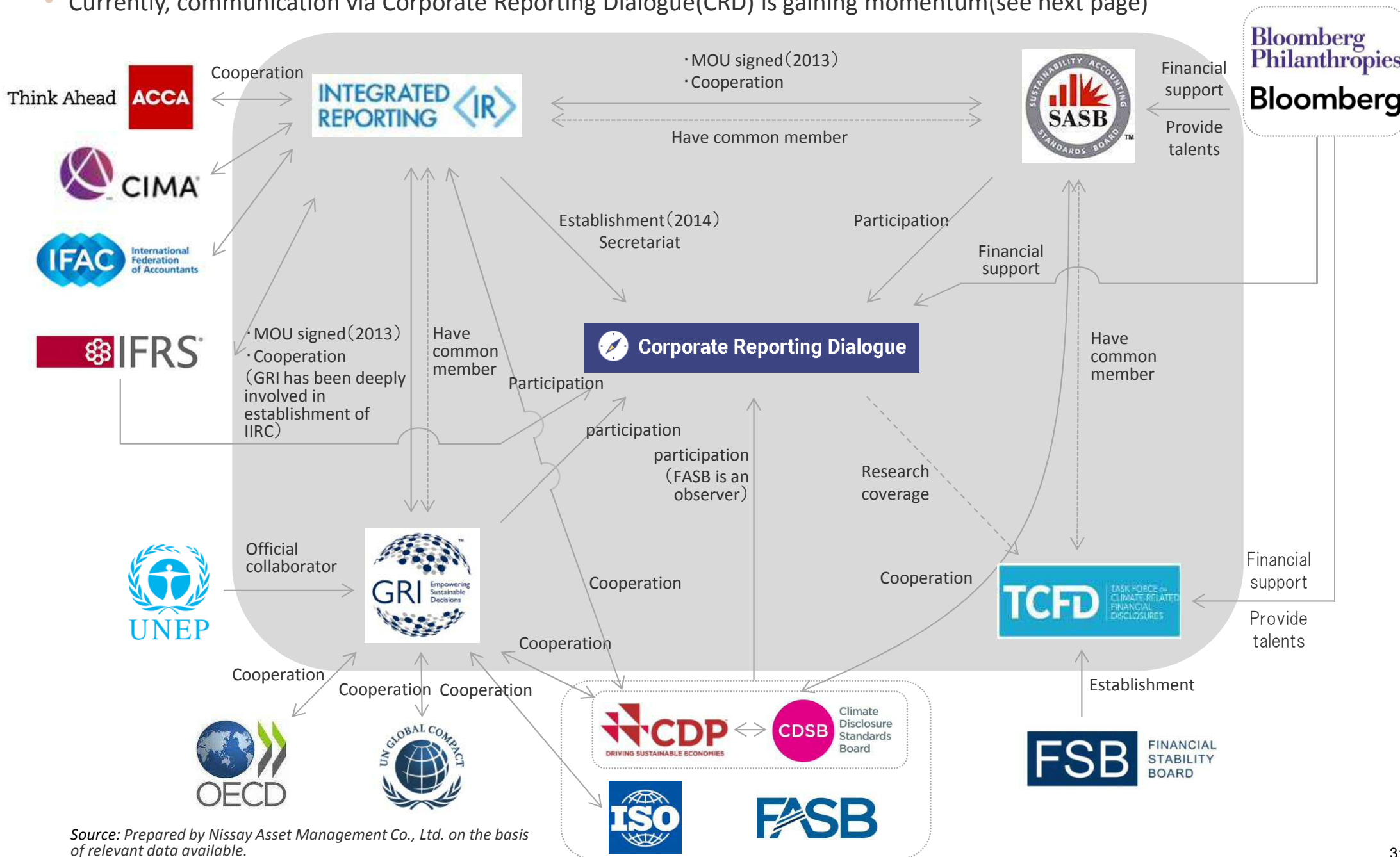
- SASB Standards recommend that 12 out of 77 industries conduct climate scenario analysis on the following matters:
- For companies in those industry below can utilize SASB standards for climate scenario analysis disclosure recommended by TCFD.

TCFD Final Recommendations		SASB Standards	
Sector more likely to be financially impacted by climate change		SASB industry (subsector) corresponding to TCFD sector	Outline of proposed climate scenario analysis
Financial sector	Banks	Commercial Banks	Analysis of climate-related risks impacting on commercial and industrial credit portfolios
		Investment Banking & Brokerage	Analysis of climate-related risks impacting on investment banking and brokerage activities
	Insurance Companies	Insurance	Analysis of climate-related risks impacting on investment portfolios
			Analysis of probable maximum loss of insured products from weather related natural catastrophes
	Asset Owners	n/a	
	Asset Managers	Asset Management & Custody Activities	Analysis of climate-related risks impacting on investment portfolios
Non-financial group	<b>Energy</b>		
	Oil and Gas	Oil & Gas – Exploration & Production	Sensitivity analysis of hydrocarbon reserve levels to future price projection scenarios that account for a price on carbon emissions
	Coal	Coal Operations	Sensitivity analysis of coal reserve levels to future price projection scenarios that account for a price on carbon emissions
	Electric Utilities	n/a	
	<b>Transportation</b>		
	Air Freight	n/a	
	Passenger Air Transportation	n/a	
	Maritime Transportation	n/a	
	Rail Transportation	n/a	
	Trucking Services	n/a	
	Automobiles and Components	n/a	
	<b>Materials and Buildings</b>		
	Metals and Mining	n/a	
	Chemicals	n/a	
	Construction Materials	n/a	
	Capital Goods	n/a	
	Real Estate Management and Development	Home Builders	Analysis of extreme weather, water shortage and tighter regulations impacting on regional infrastructure, local economy, business, etc.
		Real Estate	Analysis of extreme weather, water shortage and tighter regulations impacting on regional infrastructure, local economy, tenant demand, etc.
		Engineering & Construction Services	Analysis of backlog for hydrocarbon-related projects, renewable energy projects, and non-energy projects associated with climate change mitigation.
	<b>Agriculture, Food and Forest Products</b>		
	Beverages	n/a	
	Agriculture	Agricultural Products	Analysis of climate changes impacting on principal crops
	Packaged Foods and Meats	Meat, Poultry & Dairy	Analysis of climate changes impacting on feed sourcing
	Paper and Forest Products	Forestry Management	Analysis of climate changes impacting on forest management and timber production

TCFD uniformly requires companies in non-financial group with more than \$1 billion revenue

# Relationship Map of ESG Information Disclosure Framework Developers/Standards Setters

- Relationships among major global ESG information disclosure frameworks/standards setters are shown below
- Currently, communication via Corporate Reporting Dialogue(CRD) is gaining momentum(see next page)



Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of relevant data available.

# Cooperation by Framework Developers/Standard Setters: Better Alignment Project

- CRD announced launch of Better Alignment Project in November 2018
- Over the next two years, CRD plans to clarify common parts and differences in ESG information disclosure frameworks/standards, and to improve consistency of the overlapping parts.

## Outline of CRD and Key Backgrounds

- CRD was launched at the ICGN (International Corporate Governance Network) annual meeting held in 2014 (the secretariat is headed by IIRC).
- Principle aims of CRD are as follows:
  - To communicate about the direction, content and ongoing development of reporting frameworks, standards and related requirements;
  - To identify practical ways and means by which respective frameworks, standards and related requirements can be aligned and rationalized; and
  - To share information and express a common voice on areas of mutual interest, and where possible, will engage key regulators.
- Eight organizations, including CDP, CDSB, GRI, IIRC, ISO (International Organization for Standardization), SASB, IFRS (International Financial Reporting Standards), and FASB (Financial Accounting Standards Board) participate in CRD. (\* FASB is an observer)
- The chair of CRD is Ian Mackintosh, who is an IIRC Ambassador. KPMG's Wim Bartels serves CRD Programme Lead.
- In 2015, CRD officially released an aerial view on the relationship between International <IR> Framework and the major global ESG information disclosure standards, etc.
- In 2016, CRD published a comparative analysis on materiality of the major global ESG disclosure standards, etc. and financial accounting standards.
- In October 2018, PRI, ICGN, CFA Institute, UNEP-FI and others officially announced a discussion paper requiring the standard setters to coordinate with each other.
- Under the background, CRD launched Better Alignment Project in November 2018.

## Outline of Better Alignment Project

- Over the next two years, CRD plans (i) to identify commonalities and differences of disclosure standards, aiming to make the overlapping parts consistent, and (ii) to identify the relationships between non-financial indicators and financial results, deliberating approach how they should be included in the report.
- Funding support has been given by Bloomberg Philanthropies. Also, full-time staff for the project were allocated.
- CDP, CDSB, GRI, IIRC and SASB participate in the project.
- In the first half of the project, CRD plans to take about one year to compile a report on how to use existing ESG information disclosure standards, etc. such as SASB and GRI Standards, with the aim to encourage companies to disclose information in line with TCFD Final Recommendations (to be officially announced in September 2019). As part of the study, analysis will also be made on the relationship among ESG information disclosure standards, etc. participated in the project, such as the relationship between SASB and GRI Standards.
- In the second half of the project, over the remaining year, CRD plans to discuss how financial accounting standards should incorporate disclosure of non-financial information based on the results obtained in the first half.

- In a green paper<sup>1</sup> published in October 2018 by Professor Barker and Dr. Eccles of Oxford University, they considered two scenarios: market-driven and regulation-driven convergence.
- In addition, in relation to the latter, the FASB (U.S. Financial Accounting Standards Board) and the IASB (International Accounting Standards Board) have also raised the issue of whether to incorporate ESG information disclosure standards into accounting standards.

## Market-Driven Convergence

- A scenario in which ESG information disclosure frameworks/standards are converged through “free competition” among them, and the “de facto standard” is eventually established.
- However, the following challenges should be considered for this scenario:
  - The organizations that develop ESG information disclosure frameworks/standards are non-profit organizations (NGO), and it would be less likely to occur organizational mergers in the non-profit sector for the purpose of improving economies of scale and/or operational efficiency.
  - There is the possibility that the general investor may not necessarily recognize their needs for ESG information clearly at the present time, and thus it is less likely to occur selection through “free competition.”
  - Organizational size, countries/regions where they are based, and main sponsors for the initiatives are varying for each framework developer/standard setter. Furthermore, their mission and/or values are not necessarily common. Hence, it may be complicated for them to merge with others.
  - Each framework developer/standard setter has to differentiate from others in order to obtain support and raise funds for their initiatives, and thus certain hurdles may exist for them to harmonize with each other.

## Regulation-Driven Convergence

- A scenario in which ESG information disclosure frameworks/standards are converged by regulatory or other policy measures, instead of through “free competition.”
- There is a precedent that the global convergence of (financial) accounting standards has been promoted politically rather than based on market competition.
- The introduction of regulations regarding ESG information disclosure is on the rise worldwide. In particular, the European Commission has actively worked on this issue, including the issuance of EU Non-Financial Reporting Directive, and recent movement toward the revision of Non-Binding Guidelines on Non-Financial Reporting.
- During the Better Alignment Project, discussions are planned on how (financial) accounting standards should incorporate non-financial information disclosure (see previous page).

<sup>1</sup> Barker, R. and Eccles, R. G. (2018) “Should FASB and IASB be responsible for setting standards for nonfinancial information?: Green Paper”

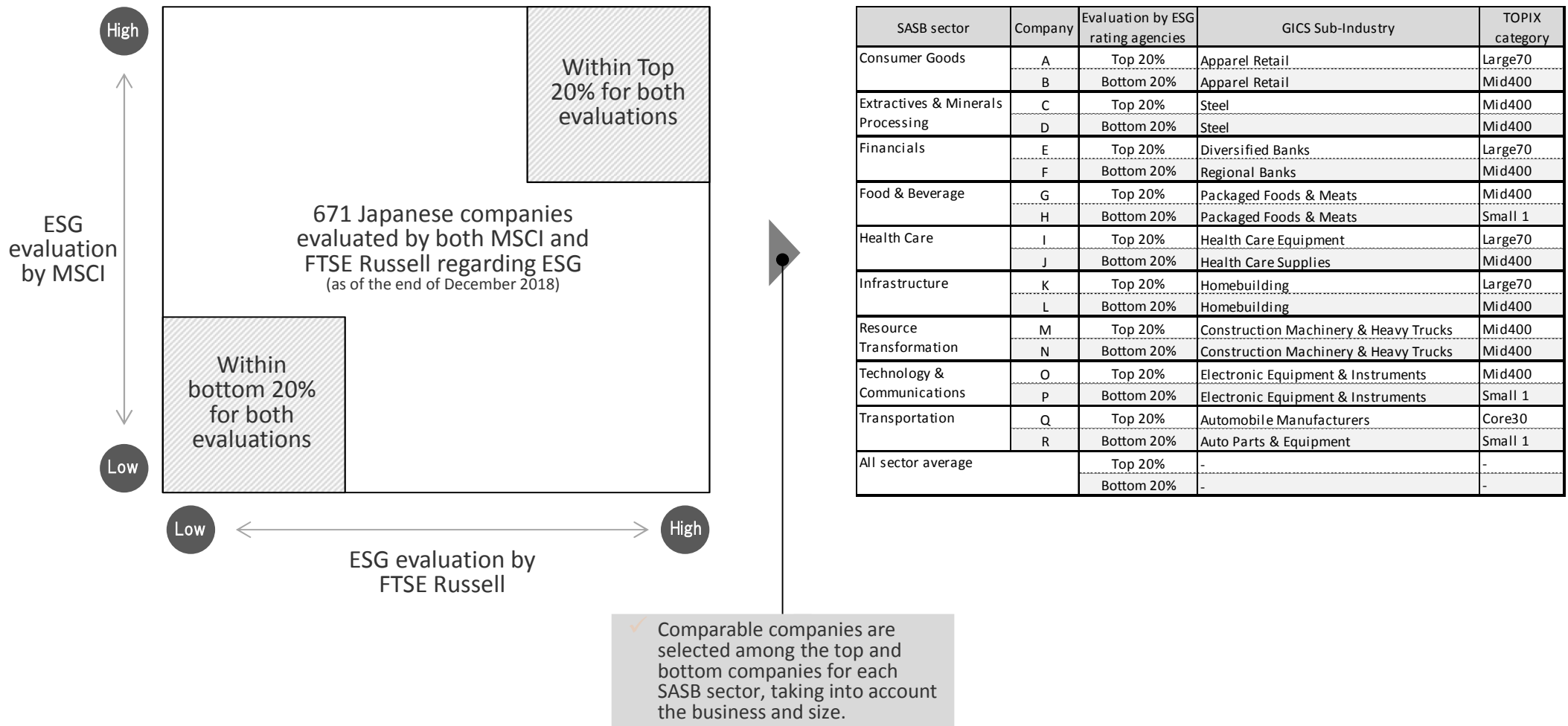
Source: Prepared by Nissay Asset Management based on Barker and Eccles(2018), interview surveys and various kinds of materials.

1	Overview of the Research
2	Comparative Analysis of ESG Information Disclosure Frameworks/Standards
3	Analysis of Corporate Disclosure Status on the common parts of ESG Information Disclosure Frameworks/Standards
4	Analysis of ESG information disclosure by institutional investors
5	Key Findings and Recommendations

# Analysis of Information Disclosures by Companies: Purposes and Selection of Surveyed Companies

- Analysis focuses on the relationship between the evaluation items of ESG rating agencies and the “common parts” proposed in this research.
- Comparable companies are selected for the analysis among those with high evaluations given by two ESG rating agencies and those with low evaluations, in consideration of their business and size (18 companies from 9 sectors).

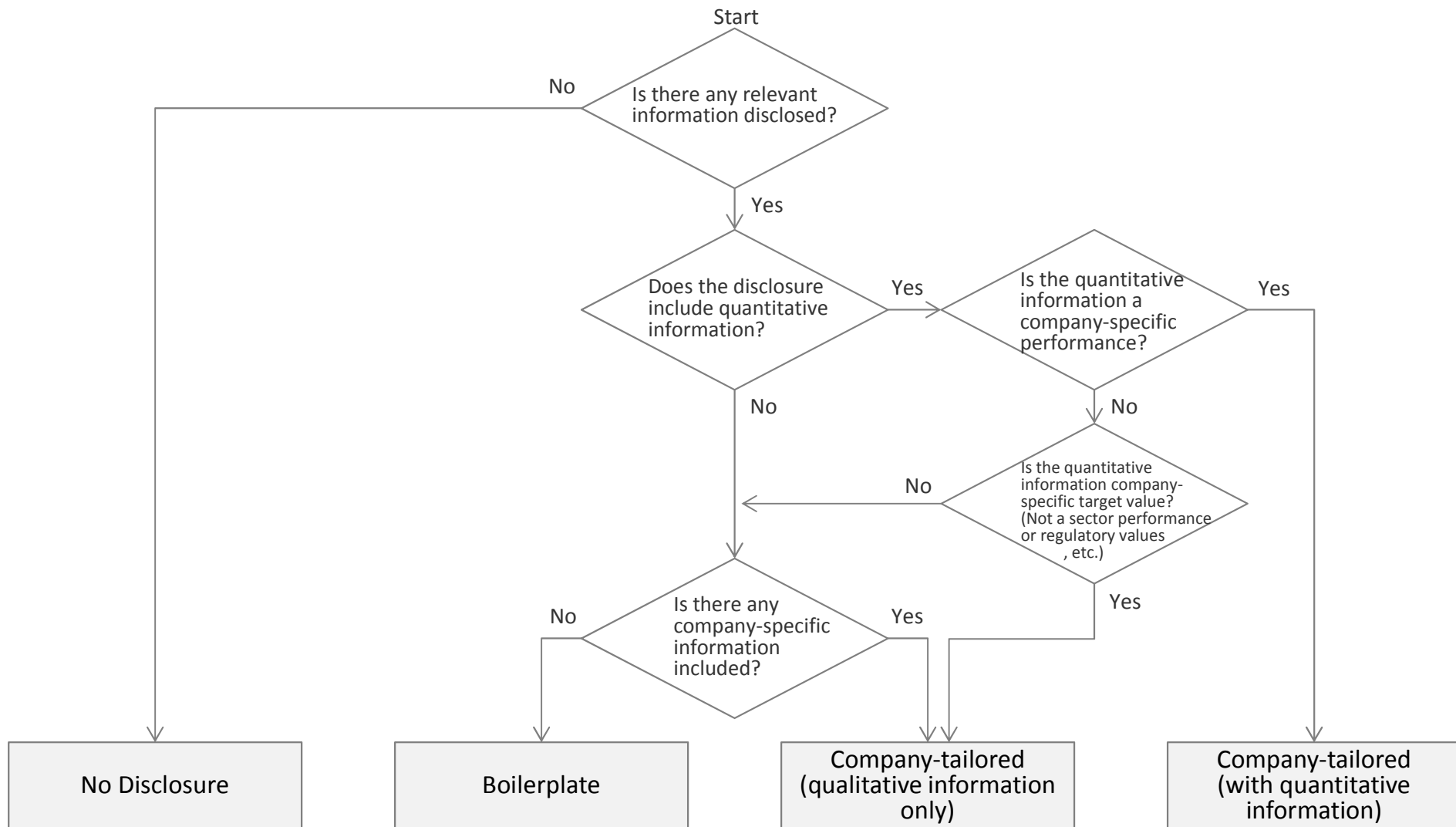
**Fig: Sample Selection Process and Results**



# Analysis of Information Disclosures by Companies: Methodology

- Corporate disclosure status regarding descriptive information on “*governance*,” “*recognition of ESG risks and opportunities*” and “*strategies and practices*” is classified into four categories according to the following flow chart.
- Quantitative information on “*KPIs*” is classified into three categories: “*Disclosed*,” “*Partially Disclosed*” and “*No Disclosure*.”
- Also, checked the reference status of the major global ESG information disclosure frameworks/standards.

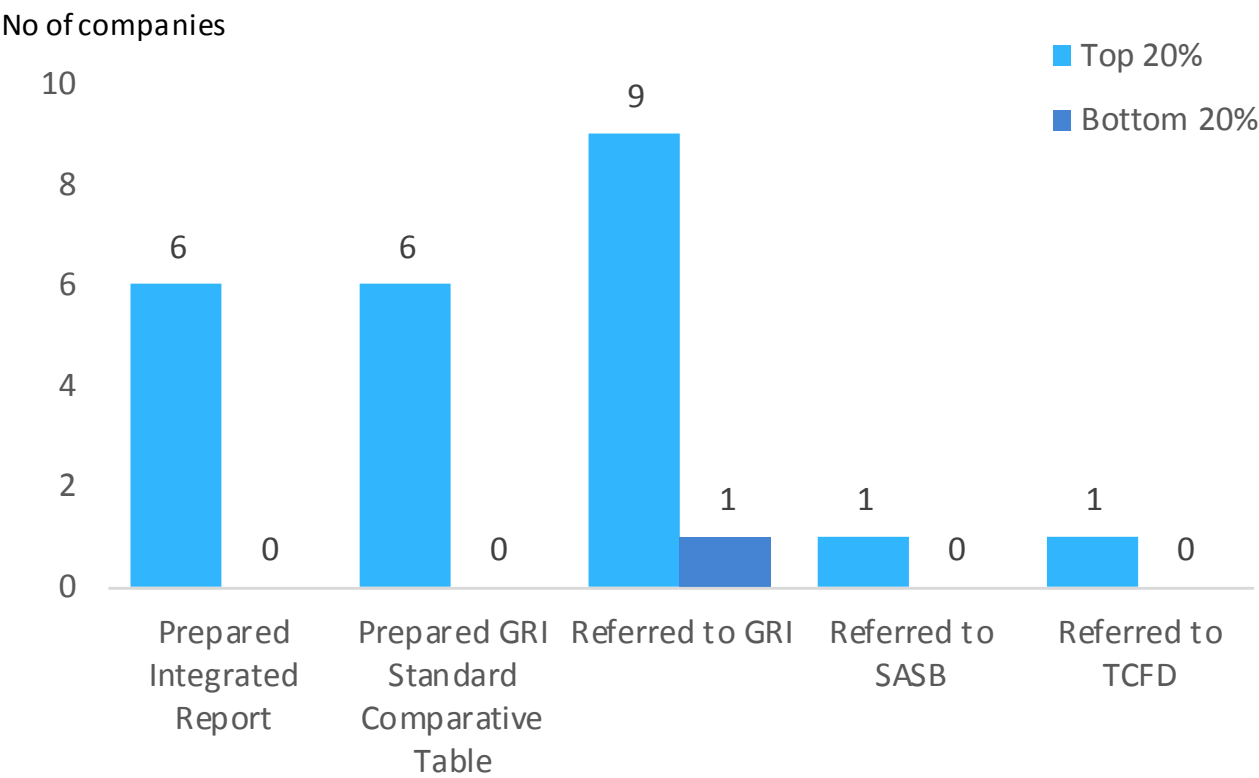
**Fig: Classification Flow of Disclosure Status of Descriptive Information**



Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of SASB “The State of Disclosure 2017” pp. 8.

- Companies that are highly rated by ESG rating agencies tend to refer to ESG disclosure frameworks/standards as compared with those with low-rated.

**Fig: Utilization of ESG Information Disclosure Frameworks/Standards**



Note: Analysis based on information disclosed as of January 2019

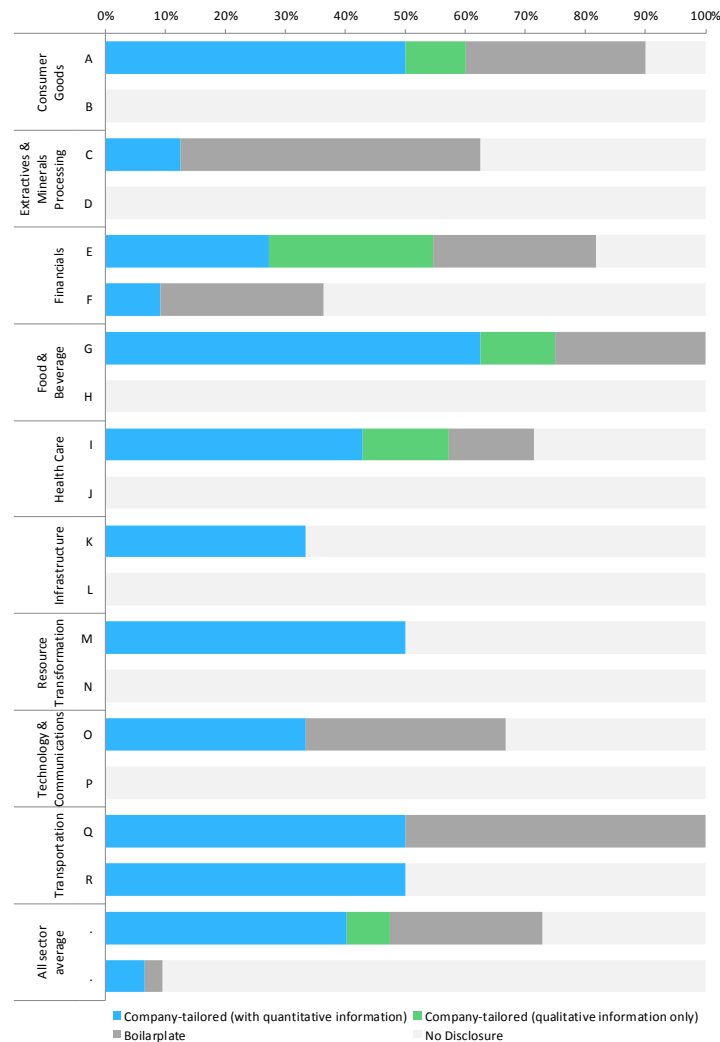
Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of the disclosure information of each company.

# Analysis of Information Disclosures by Companies: Results and Discussions (ii)

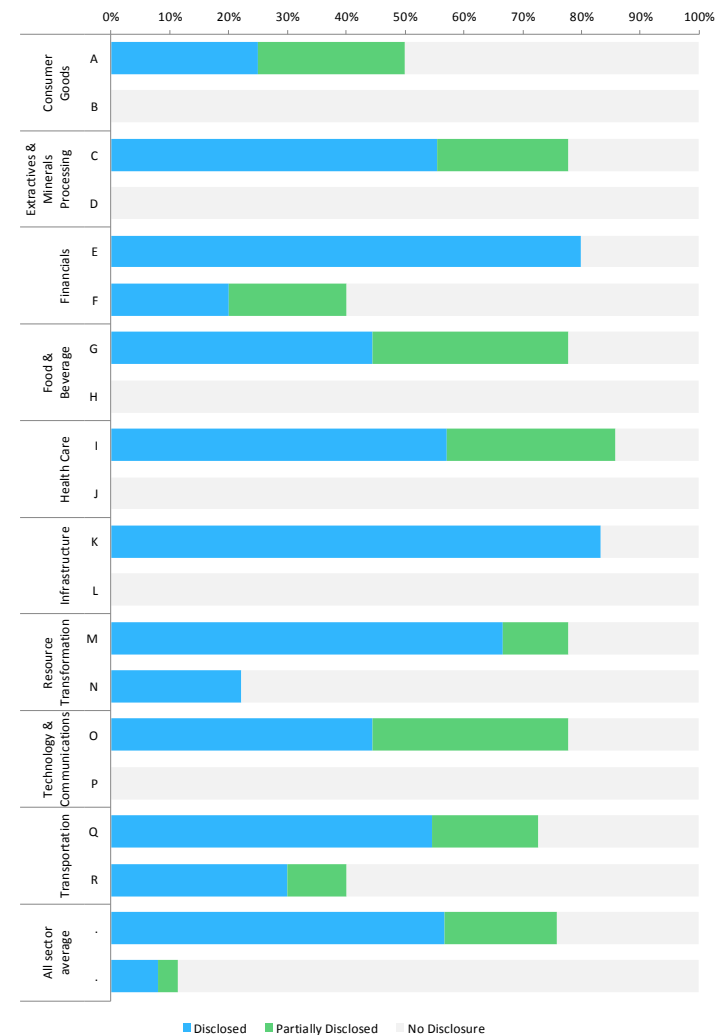
- Companies that are highly rated by ESG rating agencies tend to disclose disclosure items and indicators regarding “common parts” as compared with those with low-rated.
- It is suggested that ESG information disclosures in line with “common parts” leads to improvement of evaluation results by ESG rating agencies.(Note that due to the limited sample size and cross-section analysis, causal relationship could not be concluded)

**Fig: Disclosure Status of “common parts” (ratio of the number of disclosed items/indicators to total number of applicable ones)**

## Descriptive information on “governance,” “recognition of ESG risks and opportunities” and “strategies and practices”



## Quantitative information on “KPIs”



Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of the disclosure information of each company.

Source: Prepared by Nissay Asset Management Co., Ltd. on the basis of the disclosure information of each company.

1	Overview of the Research
2	Comparative Analysis of ESG Information Disclosure Frameworks/Standards
3	Analysis of Corporate Disclosure Status on the common parts of ESG Information Disclosure Frameworks/Standards
4	Analysis of ESG information disclosure by institutional investors
5	Key Findings and Recommendations

# Status of ESG Information Disclosure by Asset Owners

- We investigated the status of ESG information disclosure for major global pension funds, such as within the top 30 by asset size, or among the top 300, those classified as sovereign pension funds.
- Excluding Japan, 28 out of 43 funds confirmed that there is some kind of information disclosure with regards to ESG investment activities. Among these, 15 funds publish an independent annual report exclusively focusing on ESG investment.

**Fig: List of Pension Funds Surveyed & Status of ESG Information Disclosure**

AUM Rank	Fund Name	Country	Total Assets in US\$ million	PRI signatory	ESG-related info. disclosure	ESG-focused annual report
1	Government Pension Investment	Japan	1,443,554	○	○	○
2	Government Pension Fund	Norway	1,063,456	○	○	○
3	National Pension	South Korea	582,938	○	○	-
4	Federal Retirement Thrift	U. S.	531,489	-	-	-
5	ABP	Netherlands	494,796	○	○	○
6	National Social Security	China	456,853	-	-	-
7	California Public Employees	U. S.	336,684	○	○	*
8	Canada Pension	Canada	283,454	○	○	○
9	Central Provident Fund	Singapore	269,133	-	-	-
10	PFZW	Netherlands	235,995	○	○	○
11	California State Teachers	U. S.	216,193	○	○	○
12	Local Government Officials	Japan	209,880	-	○	-
13	New York State Common	U. S.	201,263	○	○	○
14	Employees Provident Fund	Malaysia	200,265	-	○	-
15	New York City Retirement	U. S.	189,794	○	○	-
16	Florida State Board	U. S.	167,900	-	-	-
17	Ontario Teachers	Canada	150,730	○	○	○
18	Texas Teachers	U. S.	146,326	-	-	-
19	Employees' Provident	India	134,272	-	-	-
20	GEPF	South Africa	133,944	○	○	-
21	ATP	Denmark	129,741	○	○	○
22	Boeing	U. S.	121,717	-	-	-
23	New York State Teachers	U. S.	115,637	-	-	-
24	AT&T	U. S.	113,582	-	-	-
25	Wisconsin Investment Board	U. S.	109,960	-	-	-
26	Future Fund	Australia	108,545	-	○	-
27	North Carolina	U. S.	106,946	-	-	-
28	National Federation of Mutual Aid	Japan	106,629	-	○	-
29	Pension Fund Association	Japan	105,204	○	○	-
30	Washington State Board	U. S.	104,260	-	○	○
35	Labor Pension Fund	Taiwan	96,539	-	○	○
41	Universities Superannuation	U.K.	81,078	○	○	-
56	Public Institute for Social Security	Kuwait	70,710	-	-	-
61	National Wealth Fund	Russia	65,076	-	-	-
93	AP Fonden 7	Sweden	46,966	○	○	○
95	FRR	France	43,698	○	○	○
97	AP Fonden 3	Sweden	43,083	○	○	-
99	AP Fonden 4	Sweden	43,001	○	○	○
102	AP Fonden 2	Sweden	41,826	○	○	-
110	AP Fonden 1	Sweden	39,874	○	○	○
131	ERAFF	France	34,694	○	○	-
174	Social Insurance Funds	Vietnam	26,820	-	-	-
180	Ireland Strategic Investment	Ireland	26,469	○	○	-
189	New Zealand Superannuation	New Zealand	24,420	○	○	-
196	State Pension	Finland	23,513	○	○	-
230	Fonds de Compensation	Luxembourg	19,655	-	○	-
241	FEFSS	Portugal	18,930	-	-	-

Note 1: As of February 2019.

Note 2: With regards to the information disclosure status, we only surveyed disclosures in English.

Note 3: \* denotes the publication of ESG-focused annual report only in the past.

Note 4: We did not survey Japan's four funds for the following analysis, but listed them for comparison.

Source: Prepared by Nissay Asset Management based on Wills Towers Watson (2018), the PRI website and the disclosures of each fund.

# Motivations for ESG Information Disclosure by Asset Owners

- As a result of interview surveys of the major global pension funds, it became clear that the motives for ESG information disclosure can be classified into following three:

**Fig: Motivation for ESG Information Disclosure by Asset Owners**

<b>Accountability</b>	<ul style="list-style-type: none"><li>■ Disclosure for beneficiaries.</li></ul>	<ul style="list-style-type: none"><li>■ The purpose is to achieve accountability to beneficiaries.</li><li>■ Publishing information that is highly interesting to beneficiaries.</li><li>■ Use simple and easy-to-understand expressions considering not all beneficiaries necessarily have plenty of expert knowledge.</li></ul>
<b>Transparency</b>	<ul style="list-style-type: none"><li>■ Disclosure to a wide range of society and stakeholders.</li></ul>	<ul style="list-style-type: none"><li>■ As a (quasi-)governmental institution, in addition to accountability to beneficiaries, it is important to be transparent to wider society and stakeholders.</li><li>■ Reporting not only about ESG investment activities and performance, but also challenge faced, and communicating with civil societies.</li></ul>
<b>Influence</b>	<ul style="list-style-type: none"><li>■ Disclosure for (entrusted) asset managers, ESG rating agencies, and/or (prospective) investee companies.</li><li>■ Disclosure for other institutional investors, including other asset owners.</li></ul>	<ul style="list-style-type: none"><li>■ Because there are resource limitations when engaging with individual companies, actively utilizing the information disclosure in order to have a broader influence.</li><li>■ By providing the details of their ESG investment activities including the effect obtained, lessons learned, etc., encouraging other investors to engage in ESG investment, as well as promoting collective action with peers who can share values and investment horizon.</li></ul> <p>*Universal owners are likely to have this motivation.</p>

## Disclosure of ESG Issues (Materiality) that Asset Owners Place Importance on for Investment: E

- “Climate change” is the most mentioned (see the shaded area in the table).
- There are also references to such environmental issues as “water scarcity,” “energy efficiency,” “air pollution” and “waste management.”

AUM Rank	Fund Name	Country	Attribute	Referred environmental issue
2	Government Pension Fund	Norway	Expectation documents(provided by NBIM)	climate change strategy water management ocean sustainability
5	ABP	Netherlands	Position paper	climate change and energy sector investment
7	California Public Employees	U. S.	Examples of engagement program themes	climate change natural resource availability
8	Canada Pension	Canada	Description of ESG factors	climate change and GHG emissions energy efficiency air and water pollution water scarcity biodiversity
10	PFZW	Netherlands	Focus areas	climate change, pollution and emissions water scarcity food security
11	California State Teachers	U. S.	ESG risk factors	climate change resource efficiency
13	New York State Common	U. S.	Sustainability investment themes	climate and environment resource efficiency pollution and waste management sustainable infrastructure
17	Ontario Teachers	Canada	Focus areas	climate change product lifecycle water & waste
21	ATP	Denmark	Thematic engagement	CO2 reporting water
26	Future Fund	Australia	Examples of ESG factors	climate change
30	Washington State Board	U. S.	Examples of ESG factors	climate change
41	Universities Superannuation	U.K.	Examples of ESG matters	climate change environmental performance management
93	AP Fonden 7	Sweden	Portfolio focus	solution to water problems solution to climate and environmental problems
97	AP Fonden 3	Sweden	Special consideration in our stewardship	environment and climate change water treatment and water-related infrastructure
99	AP Fonden 4	Sweden	Focus areas	climate and environment
102	AP Fonden 2	Sweden	Focus areas	climate
180	Ireland Strategic Investment	Ireland	ESG risks and opportunities	climate change risk and resilience
196	State Pension	Finland	Key points	pollution and decay climate change

Note: The disclosure information judged to be equivalent to the materiality of each fund is listed as extracted from the original text. (In addition, terms that refer to environmental issues in general, such as “environment”, have been omitted.)

Source: Prepared by Nissay Asset Management based on Wills Towers Watson (2018) and the websites of each fund.

## Disclosure of ESG Issues (Materiality) that Asset Owners Place Importance on for Investment: S

- Including the rights of children and workers, “human rights” are the most mentioned (see the shaded area in the table), followed by references to such issues as “occupational safety and health” and the “working conditions.”

AUM Rank	Fund Name	Country	Attribute	Referred social issue
2	Government Pension Fund	Norway	Expectation documents(provided by NBIM)	human rights children's rights
7	California Public Employees	U. S.	Examples of engagement program	fair labour practices health and safety responsible contracting diversity
8	Canada Pension	Canada	Description of ESG factors	human rights local impact and employment child labour working conditions health and safety
10	PFZW	Netherlands	Focus areas	healthcare human rights
11	California State Teachers	U. S.	ESG risk factors	respect for human rights respect for civil liberties respect for cultural and ethnic identities respect for property rights respect for political rights discrimination based on race, sex, disability, language or social status worker rights human health
13	New York State Common	U. S.	Sustainability investment themes	education demographic empowerment health and wellbeing financial inclusion
17	Ontario Teachers	Canada	Focus areas	health, safety & engagement
21	ATP	Denmark	Thematic engagement	child labour
26	Future Fund	Australia	Examples of ESG factors	human and labour rights occupational health and safety supply chain risks
30	Washington State Board	U. S.	Examples of ESG factors	pay equality labor practices human diversity
41	Universities Superannuation	U.K.	Examples of ESG matters	human rights health and safety human capital practices consumer satisfaction supply chain management consumer and public health social impacts of corporate activity stakeholder relations
95	FRR	France	SRI principles	basic human and worker rights quality of human resource management consumer and fair trade practices
97	AP Fonden 3	Sweden	Special consideration in our stewardship	human rights
102	AP Fonden 2	Sweden	Focus areas	diversity
131	ERAFF	France	Five values	social progress democratic labour relations rule of law and human rights
180	Ireland Strategic Investment	Ireland	ESG risks and opportunities	labour relations health and workplace safety
189	New Zealand Superannuation	New Zealand	Examples of ESG factors	employee relations safety
196	State Pension	Finland	Key points	human rights labour rights

Note: The disclosure information judged to be equivalent to the materiality of each fund is listed as extracted from the original text. (In addition, terms that refer to social issues in general, such as “social issues”, have been omitted.)  
Source: Prepared by Nissay Asset Management based on Wills Towers Watson (2018) and the websites of each fund.

## Disclosure of ESG Issues (Materiality) that Asset Owners Place Importance on for Investment: G

- “Anti-corruption” and “remuneration” are the most mentioned (see the shaded area in the table).
- Some funds also refer to the issue of “cyber security.”

AUM Rank	Fund Name	Country	Attribute	Referred governance issue
2	Government Pension Fund	Norway	Expectation documents(provided by NBIM)	anti-corruption tax and transparency
5	ABP	Netherlands	Position paper	remuneration
7	California Public Employees	U. S.	Examples of engagement program	alignment of interests risk management practices
8	Canada Pension	Canada	Description of ESG factors	anticorruption alignment of interests executive compensation board independence and effectiveness shareholder rights
17	Ontario Teachers	Canada	Focus areas	cybersecurity board effectiveness
26	Future Fund	Australia	Examples of ESG factors	corruption
41	Universities Superannuation	U.K.	Examples of ESG matters	cybersecurity succession planning executive remuneration bribery & corruption risk management
97	AP Fonden 3	Sweden	Special consideration in our stewardship	anti-corruption
110	AP Fonden 1	Sweden	Ownership policy	remuneration
196	State Pension	Finland	Key points	anti-corruption corporate law competition law taxation

Note: The disclosure information judged to be equivalent to the materiality of each fund is listed as extracted from the original text. (In addition, governance issues that have nothing to do with ESG information disclosure have been omitted even if they were mentioned.)

Source: Prepared by Nissay Asset Management based on Wills Towers Watson (2018) and the websites of each fund.

# Status of Participation/Involvement in Frameworks/Standards by Asset Owners

- Among the major global ESG information disclosure frameworks/standards, TCFD has the widest support.
- With regards to the SASB Standards, it is revealed that they have received a certain level of support mainly in North America and Europe.
- The larger funds are more likely to engage in framework developers/standard setters directly.

**Fig: Status of Participation/Involvement in Frameworks/Standards**

AUM Rank	Fund Name	Country	IIRC Council	IIRC Ambassadors	GRI Board of Directors	GSSB Member	SASB IAG/Alliance	TCFD Member	TCFD Supporter
1	Government Pension Investment	Japan	-	-	-	-	-	-	○
2	Government Pension Fund	Norway	-	-	-	-	○(NBIM)	-	○(NBIM)
3	National Pension	South Korea	-	-	-	-	-	-	-
4	Federal Retirement Thrift	U. S.	-	-	-	-	-	-	-
5	ABP	Netherlands	○(APG)	○(APG)	-	-	○(APG)	-	○
6	National Social Security	China	-	-	-	-	-	-	-
7	California Public Employees	U. S.	-	-	-	-	○	-	○
8	Canada Pension	Canada	-	-	-	-	○	○	○
9	Central Provident Fund	Singapore	-	-	-	-	-	-	-
10	PFZW	Netherlands	-	-	-	-	○(PGGM)	○(PGGM)	○
11	California State Teachers	U. S.	-	-	○	-	○	-	○
12	Local Government Officials	Japan	-	-	-	-	-	-	-
13	New York State Common	U. S.	-	-	-	-	-	-	○
14	Employees Provident Fund	Malaysia	-	-	-	-	-	-	-
15	New York City Retirement	U. S.	-	-	-	-	○	-	○
16	Florida State Board	U. S.	-	-	-	-	-	-	-
17	Ontario Teachers	Canada	-	-	-	-	○	-	○
18	Texas Teachers	U. S.	-	-	-	-	-	-	-
19	Employees' Provident	India	-	-	-	-	-	-	-
20	GEPPF	South Africa	-	-	-	-	-	-	-
21	ATP	Denmark	-	-	-	-	○	-	○
22	Boeing	U. S.	-	-	-	-	-	-	-
23	New York State Teachers	U. S.	-	-	-	-	-	-	-
24	AT&T	U. S.	-	-	-	-	-	-	-
25	Wisconsin Investment Board	U. S.	-	-	-	-	-	-	-
26	Future Fund	Australia	-	-	-	-	-	-	-
27	North Carolina	U. S.	-	-	-	-	-	-	-
28	National Federation of Mutual Aid	Japan	-	-	-	-	-	-	-
29	Pension Fund Association	Japan	-	-	-	-	-	-	-
30	Washington State Board	U. S.	-	-	-	-	-	-	-
35	Labor Pension Fund	Taiwan	-	-	-	-	-	-	-
41	Universities Superannuation	U.K.	-	-	-	-	-	-	○
56	Public Institute for Social Security	Kuwait	-	-	-	-	-	-	-
61	National Wealth Fund	Russia	-	-	-	-	-	-	-
93	AP Fonden 7	Sweden	-	-	-	-	-	-	○
95	FRR	France	-	-	-	-	-	-	○
97	AP Fonden 3	Sweden	-	-	-	-	-	-	○
99	AP Fonden 4	Sweden	-	-	-	-	-	-	○
102	AP Fonden 2	Sweden	-	-	-	-	-	-	○
110	AP Fonden 1	Sweden	-	-	-	-	-	-	○
131	ERAFP	France	-	-	-	-	-	-	○
174	Social Insurance Funds	Vietnam	-	-	-	-	-	-	-
180	Ireland Strategic Investment	Ireland	-	-	-	-	-	-	-
189	New Zealand Superannuation	New Zealand	-	-	-	-	-	-	-
196	State Pension	Finland	-	-	-	-	-	-	-
230	Fonds de Compensation	Luxembourg	-	-	-	-	-	-	-
241	FEFSS	Portugal	-	-	-	-	-	-	-

Note: As of March 2019 (does not include past participation).

Source: Prepared by Nissay Asset Management based on Wills Towers Watson (2018), and the websites of IIRC, GRI, SASB and TCFD.

**Fig: Breakdown by Region**

	IIRC Council	IIRC Ambassadors	GRI Board of Directors	GSSB Member	SASB IAG/Alliance	TCFD Member	TCFD Supporter
Europe	1	1			4	1	12
North America			1		5	1	6
Japan							1
Others							

Note: As of March 2019 (does not include past participation).

Source: Prepared by Nissay Asset Management based on the websites of IIRC, GRI, SASB and TCFD.

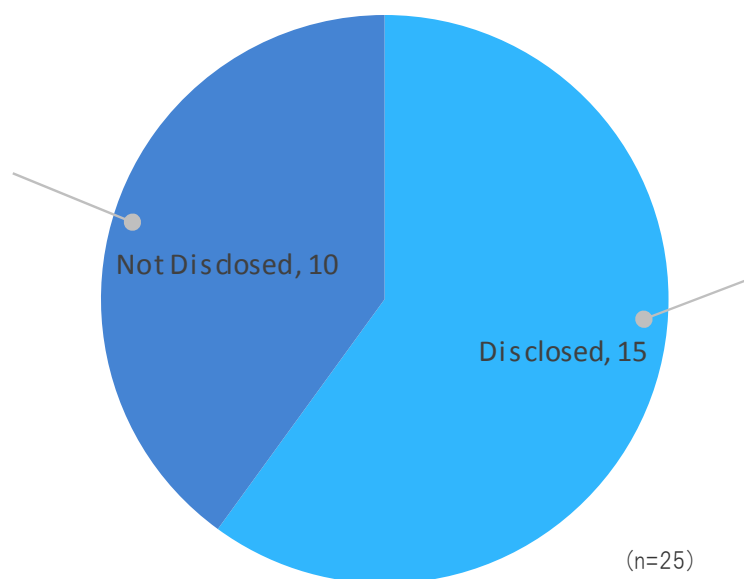
- Among the major global pension funds, the movement to disclose ESG information is spreading.
- Following are the three major motivations for ESG information disclosure.
  - Achieving accountability (information disclosure to beneficiaries).
  - Increasing transparency (information disclosure to a wide range of society and stakeholders).
  - Having influence (information disclosure for other asset owners, investment management institutions, ESG evaluation organizations and companies).
- ESG issues that major global pension funds place importance on for investment, they are mostly included in ESG issues covered by the major global ESG information disclosure frameworks/standards
  - Environmental: Climate change, water scarcity, energy efficiency, air pollution and waste treatment, etc.
  - Social: Human rights and occupational safety and health, etc.
  - Governance: Anti-corruption and remuneration, etc.
- Participation and involvement in major global ESG information disclosure standards by major global pension funds is necessary
  - TCFD has the most widespread support.
  - SASB Standards have received a certain level of support mainly in North America and Europe.
- There are various medium and methods for information disclosure by asset owners, and no single best solution has been developed at this time. Best practices need to be built up (examples of current initiatives are below).
  - Include everything in a single annual report (integrated report) / prepare a separate annual report on ESG investment.
  - At some funds, for specific ESG issues, they prepare and publish position papers that outline their expectations for companies, and their view and approach for investing.

- 60% of Asset Manager surveyed have disclosed ESG issues to be placed importance on for investment (materiality).
- The most popular reason to disclose materiality is to enhance the effectiveness of dialogue (engagement) through understanding building by investee companies.
- The most popular reason not to disclose materiality is because the importance of ESG issues varies across companies, and thus it is difficult to show a uniform set of ESG issues to be placed importance for investment (especially, in case of considering ESG issues for fundamental analysis).
- If it is difficult to disclose a uniform set of ESG issue, asset managers can rather provide detailed explanation of their approach to ESG issues , their point of view of analysis and evaluation, and their methodology to utilize them for their investment decision makings.

**Fig: Status of ESG Information Disclosure by Asset Managers**

## Reason not to disclose (only major answers)

- It is difficult to show a uniform set of ESG issues, since the importance of ESG issues varies across companies. (5 asset managers)  
\* 2 out of 5 asset managers state that they are considering ESG issues for fundamental analysis as a reason for varying ESG issues.
- Do not consider any specific ESG issues because of the investment strategy based on a mathematical technique. (1 asset managers)
- Disclosure of a uniform set of ESG issues might discourage investee companies to examine their materiality on their own.
- Materiality is reported directly to clients/asset owners. (1 asset managers)



## Reason to disclose (only major answers)

- To enhance the effectiveness of dialogue (engagement) through understanding building by investee companies. (5 asset managers)
- To increase transparency. (2 asset managers)
- To promote understanding by clients/asset owners (1 asset manager)

Note 1: Samples are 25 external asset managers entrusted by GPIF, who answered questionnaire survey conducted in March 2019.

Note 2: "Reason to disclose" and "reason not to disclose" are summarized based on the contents of the open-ended answers.

Source: Prepared by Nissay Asset Management based on questionnaire survey.

1	Overview of the Research
2	Comparative Analysis of ESG Information Disclosure Frameworks/Standards
3	Analysis of Corporate Disclosure Status on the common parts of ESG Information Disclosure Frameworks/Standards
4	Analysis of ESG information disclosure by institutional investors
5	Key Findings and Recommendations

# Key Findings and Recommendations (i)

- Key findings of this research projects are as shown below:

<b>ESG investment strategies and information needs</b>	<ul style="list-style-type: none"> <li>• The needs of ESG information would vary according to the ESG investment strategies adopted by investors. <ul style="list-style-type: none"> <li>- Judgmental strategies would have higher needs for ESG information which helps to understand individual companies deeply.</li> <li>- Systematic/passive investment strategies would have higher needs of easy-to-quantifiable and comparable ESG information.</li> <li>- Impact investors would have higher needs of the ESG information regarding economic, environmental and/or social impact driven by companies.</li> </ul> </li> </ul>
<b>Common parts and differences of ESG information disclosure frameworks/ standards</b>	<p>The “common parts” are suggested to be overlapped to some extent with the evaluation items of major global ESG rating agencies, and also relevant for the materiality – important ESG issues in investment management for major global pension funds. Focusing on the “common parts” would lead to more effective and efficient investor relations activities for companies.</p> <p>Some major differences are as shown below:</p> <ul style="list-style-type: none"> <li>- International &lt;IR&gt; Reporting Framework is complementary, instead of supplementary with other frameworks/standards, and the distinctive features of the Frameworks require comprehensive and systematic disclosure of the business model.</li> <li>- As GRI Standards and SASB Standards have differences in their definition of “sustainability” as well as their purpose of disclosure, which results in the major differences in disclosure items/standards of those standards.</li> <li>- SASB standards can be utilized when companies disclose in line with TCFD final recommendations, including climate scenario analysis.</li> </ul>
<b>Enhance consistency and convergence of frameworks/ standards</b>	<ul style="list-style-type: none"> <li>• It has become evident that the relationship between disclosure items/indicators of each framework/standard are highly intricate, and thus it is often hard to extract exact “common parts” of them. This fact would cause greater confusion in corporate ESG information disclosure forefront, and also prompt initiatives such as “Better Alignment Project” to enhance consistency, as well as discussion regarding convergence of frameworks/standards.</li> <li>• There are possible two scenarios of convergence; market-driven convergence and regulation-driven convergence. It has been pointed out that as it is unlikely for selection or organizational merger to occur through free competition, thus the importance of regulation-driven approach would increase.</li> </ul>
<b>ESG information disclosure by major global pension funds</b>	<ul style="list-style-type: none"> <li>• It has become evident that various forms of ESG information disclosure practices including publication of an independent annual report exclusively focusing on ESG investment are increasing among major global pension funds.</li> <li>• Motivation for such ESG information disclosure can be classified into three; “accountability,” “transparency” and “influence.” Regarding “influence,” pension funds, especially universal owners, disclose materiality for their investment management so as to influence external asset managers and/or investee companies. Such disclosure practices could play an important role in the investment chain.</li> <li>• Pension funds, especially for ones with larger AUM, tend to engage with framework developers/standard setters directly. In particular, TCFD final recommendations have achieved the widest support, and also SASB Standards are gaining attention and support from pension funds.</li> </ul>

## Key Findings and Recommendations (ii)

- Recommendations of this research projects are as shown below:

### Recommendations for Companies (Investor Relations)

- Companies should enrich their understanding about the diversified ESG investment strategies, and the fact that different strategy has different ESG information needs.
- Companies that are not actively working on ESG information disclosure at present should first embark ESG information disclosure by referring to the “common parts” of ESG information disclosure frameworks/standards.
- Companies that are already actively engaging in ESG information disclosure should advance disclosure beyond the “common parts,” by being aware of the information needs of ESG investors as end-users of disclosed information.

### Recommendations for GPIF/Asset Owners

- Universal owners should disclose appropriate ESG information from the perspectives not only of “accountability” and “transparency,” but also “influence (influencing on external asset managers behavior and disclosure practices of investee companies throughout disclosure processes) ”.
- As GPIF is not allowed to engage in any single company, ESG information disclosure should be utilized actively as an alternative ‘tool’ for engagement.
- Showing materiality for asset owners – important ESG factors for their investment management – would provide insights for companies that are questioning “what kind of ESG information should be disclosed?” in the sea of ESG information disclosure frameworks/standards. In that sense, GPIF should consider disclosure of materiality as other major global asset owners do.
- Framework developers/standard setters are non-profit organizations (NGOs), and it would be less likely to result in shakeout or be incentivized for organizational mergers through competition as with profit seeking organizations. Hence, asset owners should consider engaging with framework developers/standard setters toward better commonality and advancement of frameworks/standards.
- Asset owners should encourage entrusted asset managers to support above activities.

### Recommendations for Framework Developers/ Standard Setters

- In order to enhance the convenience for framework/standard users, framework developers/standard setters should increase their efforts to improve consistency, as well as to clarify common parts and differences at the individual disclosure item and indicator levels.

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