THE STATE OF DISCLOSURE

2017

An analysis of the effectiveness of sustainability disclosure in SEC filings

ABOUT SASB

Founded in 2011, the Sustainability Accounting Standards Board (SASB) is the independent standard-setting organization for sustainability accounting standards that meet the needs of investors by fostering high-quality disclosure of material sustainability information. The standards focus on known trends and uncertainties that are reasonably likely to affect the financial condition or operating performance of a company and therefore would warrant disclosure under Regulation S-K. The standards are designed to improve the effectiveness and comparability of corporate disclosure on material environmental, social, and governance (ESG) factors in SEC filings, such as Forms 10-K, 20-F, 40-F, 10-Q, 8-K, S-1, and S-3. The standards are also recognized by the European Commission as a suitable framework for companies to provide information to investors pursuant to EU Directive 2014/95/EU. Following a rigorous process that includes evidence-based research and broad, balanced stakeholder participation, the SASB currently maintains provisional standards for 79 industries across 11 sectors.

ABOUT THIS REPORT

The State of Disclosure Report is an annual reference document for investors and other users of financial information who are looking to better understand the material sustainability risks and opportunities embedded in their portfolios. By presenting an overview of the quality of existing corporate disclosure on SASB topics, the report aims to provide these users with an improved understanding of how efficiently those risks and opportunities are currently being priced within an industry-specific context. Additionally, the report provides a year-on-year comparison with the previous year's disclosure analysis, providing investors and other users of this information with insight into evolving trends related to corporate disclosure practices, market pricing, and key areas to be addressed in corporate engagement and portfolio risk management.

December 2017

CONTENTS

FOREWORD

The U.S. capital markets and regulatory system are the best in the world today, and I believe they will continue to be the best in the world tomorrow and well into the future. That is because our markets—and the millions of individuals who participate in them as investors, issuers and their advisers, auditors and regulators, as well as in a variety of other capacities—have with limited exceptions accepted the challenge of improving markets, accounting and other disclosure. From the market crash of 1929, which resulted in the enactment of the federal securities laws, to the lack of authoritative accounting standards, which led to the formation of the Financial Accounting Standards Board (FASB) in 1973, to more recent breakdowns, which led to improvements such as the Sarbanes-Oxley Act, to the variety of complex challenges facing our markets today, we have a proud tradition of addressing shortcomings head-on—and usually coming out on top.

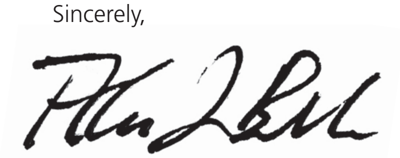
Indeed, today's challenges forecast tomorrow's solutions. And in today's rapidly changing business landscape, many market participants are exploring how we might modernize corporate disclosure practices. Guided by narrowly focused financial statements and quarterly earnings reports, investors have found it difficult to develop a robust understanding of how companies create sustainable long-term value. It has become clear that financial and other reporting must evolve to keep pace with this growing interest, among both company managers and investors, in sustainability information that is material to operations and financial performance.

The Sustainability Accounting Standards Board (SASB) was established to address this market need. The SASB's standard-setting process emphasizes the securities law concept of materiality so that its industry-specific outcomes can serve as a natural complement to traditional financial reporting and as a practical path forward for companies to provide the capital markets with more effective disclosure on material environmental, social, and governance matters.

In this report—the second annual edition—the SASB presents a detailed analysis of relevant sustainability disclosures that were included in hundreds of current Securities and Exchange Commission (SEC) filings across every major industry. As with those in last year's report, the findings can be viewed in two different ways. On the one hand, it is heartening that companies increasingly recognize the risks and opportunities involved in managing material sustainability factors and the requirements in at least some cases under our existing regulatory regime to disclose them in communications with investors. On the other, their communication to investors on these issues remains largely designed to address liability concerns, and are thus ineffective in providing meaningful and comparable information. So much work remains to be done.

Note that this report provides an assessment of corporate disclosure—not of corporate performance, which is the market's job. However, higher-quality sustainability information—as opposed to the boilerplate language that prevails, as demonstrated in this report—would help the market do that job more efficiently and more effectively. The suggestion is that the market can rise to meet this challenge just as it has met others, and the report offers some examples of how that might be achieved. In producing this report, the SASB's goal is to provide a starting point for an ongoing dialogue with the broad spectrum of market stakeholders regarding sustainability disclosure and how it might be improved to the benefit of investors, issuers, and the markets at large.

Sincerely,



Alan L. Beller
SASB Foundation Board of Directors
Former Director of the Division of Corporation Finance, U.S. Securities and Exchange Commission

EXECUTIVE SUMMARY

The soundtrack to the summer of 2017 was a steady drumbeat of demand from investors for high-quality sustainability information. In June, Bank of America Merrill Lynch research found sustainability factors to be strong indicators of future volatility, earnings risk, price declines, and bankruptcies.[1] In July, the Human Capital Management Coalition, a group of institutional investors collectively managing $2.8 trillion in assets, petitioned the SEC to require corporate issuers to disclose information regarding their management of human capital.[2] In August, Vanguard, one of the world's largest investment management companies with $4.4 trillion in assets, issued an open letter calling on public companies to "embrace the disclosure of sustainability risks that bear on a company's long-term value creation prospects" using a suitable framework like the SASB standards.[3]

As the beat goes on, the question is no longer whether certain sustainability information is materially important to a variety of mainstream investors. The question is how companies are responding.

In this report, the Sustainability Accounting Standards Board (SASB), which aims to improve the effectiveness of Securities and Exchange Commission (SEC) reporting with standardized sustainability disclosure, presents the findings of its second annual analysis of existing sustainability disclosure. In this analysis, the SASB reviewed the latest-available Form 10-K or 20-F filings for up to the top 10 companies in each of 79 industries, categorizing disclosures on the most crucial, industry-specific sustainability topics according to their quality. The SASB's analysis uncovered the following major points:

- Most companies address most SASB disclosure topics—and many address all—in SEC filings: Overwhelmingly, companies have recognized the existence of, or the potential for, material impacts related to the sustainability topics included in the SASB's Provisional Standards. Indeed, 73 percent of companies in the analysis reported on at least three-quarters of the sustainability topics included in their industry standard, and 42 percent provided disclosure on every SASB topic. Both figures are slightly higher than one year ago (69 and 39 percent, respectively).

- Company reporting demonstrates broad agreement with the materiality of the SASB disclosure topics: In all, across all industries and topics, 83 percent of possible entries[4] included some form of disclosure, representing a slight increase from 81 percent in fiscal year (FY) 2015. This is a clear indication that companies acknowledge the majority of the sustainability factors identified in the SASB standards are currently having—or are reasonably expected to have—material impacts on their business.

- However, most sustainability disclosure consists of boilerplate language, which is largely useless to investors: The most common form of disclosure across the majority of industries and topics was generic boilerplate language, which is inadequate for investment decision-making. Such vague, non-specific information was used more than 50 percent of the time when companies addressed a SASB topic, which is a slight improvement over FY 2015, when it was used in about 53 percent of available disclosures.

- Sustainability performance metrics are rarely disclosed and lack comparability when they are: Companies used metrics—obviously more useful to investment analysis—in around 29 percent of the cases in which a disclosure occurred. Importantly, even in these cases, the metrics were non-standardized and therefore lacked comparability from one firm to the next. This represents a

1 Bank of America Merrill Lynch, "Equity Strategy Focus Point—ESG Part II: A Deeper Dive" (June 15, 2017), available at https://www.bofaml.com/content/dam/boamlimages/documents/articles/ID17_0028/equityStrategyFocusPointADeeperDive.pdf.

2 Human Capital Management Coalition, letter to the SEC, dated July 6, 2017, available at https://www.sec.gov/rules/petitions/2017/petn4-711.pdf.

3 Vanguard, "An Open Letter to Directors of Public Companies Worldwide," a letter from Chairman and CEO F. William McNabb III, dated August 31, 2017, available at https://about.vanguard.com/investment-stewardship/governance-letter-to-companies.pdf.

4 The analysis searched SEC filings for disclosures related to the topics included in the industry-specific SASB standards. The more than 4,110 possible entries were then categorized as "No Disclosure," "Boilerplate," "Company-Tailored Narrative," or "Metrics." Of the possible entries, a total of 3,397 included relevant disclosures (i.e., all possible entries minus those categorized as "No Disclosure").

modest uptick from last year's findings (about 24 percent of available disclosures used metrics in FY 2015), which may be at least partially attributable to methodological changes.

- Important differences exist among sectors and industries, including notable year-over-year improvements: Although aggregate results were similar to last year's, incremental trends are encouraging, and noteworthy differences exist at sector and industry levels. For example, the use of metrics improved or remained constant in 10 out of the 11 sectors, with significant improvements in the "Infrastructure" and "Non-Renewable Resources" sectors. Meanwhile, the use of boilerplate disclosures decreased or remained constant in seven of the sectors, with notable improvements in the "Financials" and "Non-Renewable Resources" sectors.

- Large-cap firms in Europe appear to be leading the charge toward more effective sustainability disclosure: In general, foreign private issuers (20-F filers) produced more—and higher-quality—disclosures than did domestic issuers (10-K filers). This was largely driven by practices in Europe, where companies—especially large-cap firms—addressed more issues and used more performance metrics than their counterparts in other regions.

- Company disclosure is more effective under regulatory scrutiny, and less effective when addressing factors related to innovation: The analysis generally found more—and better—disclosure in highly regulated sectors, such as "Financials," "Non-Renewable Resources," and "Infrastructure." Lesser disclosure was observed in highly innovative sectors, such as "Technology & Communications," "Renewable Resources," and "Resource Transformation."

These findings, among all others contained in this report, demonstrate that, by and large, companies continue to take a minimally compliant approach to sustainability disclosure, providing the market with information that is inadequate for efficient pricing and effective decision making. The SASB exists to solve this problem by providing a materiality-focused market standard for sustainability disclosure to ensure more detailed and comparable disclosure that is decision-useful for investors and cost-effective for companies. This analysis serves as a verification tool in the SASB's standard-setting process. Through evaluation of the quantity and quality of disclosure on each industry-specific topic, the SASB can monitor changes over time that may indicate an evolving understanding of materiality or emerging considerations related to a particular topic. The analysis also helps the SASB to determine the best, most commonly used, and/or most appropriate performance metrics to include in the standards.

This report highlights a wide variety of trends and patterns related to the effectiveness of sustainability disclosure, including how it differs across industries, sectors, topics, market capitalization, and geographical regions. It therefore provides a tool for investors to use in identifying and assessing the risks and opportunities they face, and in developing a deeper understanding of where in their portfolio those risks are most likely to be uncompensated. Furthermore, as the second in an annual series of analyses, the report supplies investors with insights into evolving trends related to corporate disclosure that have implications for market pricing, and to key matters they may wish to address in both portfolio management and corporate engagement.

INTRODUCTION

In 1576, the English playwright George Pettie wrote, "So long as I know it not, it hurteth mee not," which today is the earliest known example of the now familiar proverb "What you don't know can't hurt you." The sentiment has endured nearly four and a half centuries, in part because of its arch humor, but also because in certain contexts a willfully maintained oblivion may provide comforting psychological refuge. It should go without saying, however, that financial markets are not one of those contexts. Indeed, although ignorance may be bliss, it's a terrible risk management strategy.

In recent years, providers of financial capital have become increasingly attuned to the material risks and opportunities embedded in the handful of key "known unknowns" that drive sustainability: environmental, social, and governance (ESG) factors. On an almost daily basis, new headlines tell the tale: data breaches, oil spills, bailouts, product recalls, foodborne illnesses, and emissions scandals eat into earnings, increase costs, and—almost overnight—ruin reputations that took years to build.

Nevertheless, although investor interest in such matters has skyrocketed—globally, more than one out of every four dollars under professional management is invested using sustainable strategies[5]—the quality of corporate disclosure related to ESG performance has not kept pace. Companies have begun to disclose more information about how they manage key sustainability issues, particularly in stand-alone "corporate social responsibility" (CSR) reports, but such reporting has done little to illuminate the connection between a company's sustainability performance and its financial statements. (See "The World's Best ESG Performer" sidebar.) Furthermore, such reports tend to exhibit a strong positive bias; for example, an analysis of highly rated sustainability reports revealed that 90 percent of known negative events went undisclosed.[6] This communication breakdown has created a challenge for investors who need to better understand the material risks and opportunities they face in allocating financial capital.

5 Global Sustainable Investment Alliance, *2016 Global Sustainable Investment Review* (2016).

6 Olivier Boiral, "Sustainability Reports as Simulacra? A Counter-Account of A and A+ GRI Reports," *Accounting, Auditing & Accountability Journal 26*, no. 7 (2013): 1036–71, available at http://www.emeraldinsight.com/doi/pdfplus/10.1108/AAAJ-04-2012-00998.

The World's Best ESG Performer

Boilerplate disclosures—generic statements that are not specifically tailored to the individual company and the risks it faces—are inadequate for investment decision-making. In the absence of a market standard against which to compare such disclosures, some courts have viewed certain vague, optimistic statements that may appear in disclosures as mere "puffery" that is "too untethered to anything measurable … to communicate anything that a reasonable person would deem important to a securities investment decision."[7] For example, consider the following hyperbolic statements contained in FY 2016 filings:

- A company in the "Engineering & Construction Services" industry addressed workforce health and safety by saying: "One of our core values and a fundamental business strategy is our constant pursuit of safety. The maintenance of a safe and secure workplace is a key business driver for us and our clients. In the areas in which we provide our services, we strive to deliver excellent safety performance."
- A biotech company, discussing the issue of employee recruitment, development, and retention, stated: "We believe that we have been successful in attracting and retaining skilled and experienced scientific personnel."
- On the topic of energy and fleet fuel management, a processed foods firm stated: "We consider compliance with environmental regulations and environmental sustainability to be our responsibility as a good corporate citizen and a key strategic focus area."
- Finally, a chemicals manufacturer, discussing product design for use-phase efficiency, said: "We are seeking a strong position in the technological development of chemicals from renewable resources and/or using production processes that generate fewer emissions by investing in research, development and technological innovation."

Such vague "corporate optimism" does little for the investor. Rather, researchers have found that investors and analysts are better able to assess fundamental risk when firms' disclosures are more detailed and avoid vague or abstract language.[8] Further, another study found that comparability not only lowers the cost of acquiring information but also helps analysts forecast earnings more accurately.[9]

Importantly, courts have found that such statements were not actionable in prior cases because they "lacked a standard against which a reasonable investor could expect them to be pegged." Therefore, establishing a market standard for the disclosure of sustainability information—something measurable against which performance can be pegged—is likely to improve the quality and comparability of sustainability information.

7 399 F.3d 651 (6th Cir. 2005).

8 Ole-Kristian Hope, Danqi Hu, and Hai Lu, "The Benefits of Specific Risk-Factor Disclosures," February 26, 2016, Rotman School of Management Working Paper No. 245704, Singapore Management University School of Accountancy Research Paper No. 2015-35.

9 Gus de Franco, S.P. Kothari, and Rodrigo S. Verdi, "The Benefits of Financial Statement Comparability," Journal of Accounting Research 49, no. 4 (2011): 895–931.

Of course, market infrastructure already exists to provide investors, lenders, and other economically motivated decision makers with the information they need. In the U.S., for example, corporate disclosure requirements are set forth in the provisions of the federal securities laws and the regulations of the Securities and Exchange Commission (SEC). As SEC guidance has made clear, sustainability topics, when material, are covered by its existing disclosure requirements. (See "Materiality and Sustainability" sidebar.) Although such disclosure has become increasingly prevalent, its quality—for example, much of it consists of boilerplate language—has left investors wanting. As a result, shareholders frequently seek such information outside normal channels, including through questionnaires and shareholder proposals, which creates information asymmetry, raises red flags with regulators over fair disclosure, and results in unpriced risks.

Materiality and Sustainability

According to the U.S. Supreme Court, information is material if there is "a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available."[10] This legal concept recognizes that some information is important to investors in making investment and voting decisions, while other information is not, and thus materiality underpins the rationale for corporate disclosures in the U.S. This is why the SASB uses materiality to guide its standard-setting process. Although the SASB does not prescribe what constitutes a material disclosure for any company or industry, its process serves to establish a basis for standard-setting that is aligned with existing U.S. federal securities laws.

A duty to disclose material sustainability information may arise under the requirements of Regulation S-K, which establishes the specific non-financial-statement disclosure requirements associated with Form 10-K and other SEC filings. Item 303 (Management's Discussion and Analysis), for example, requires that companies describe known trends, events, and uncertainties that are reasonably likely to have material impacts on their financial condition or operating performance. The SEC's interpretive guidance on disclosure requirements related to climate change and cybersecurity highlight the applicability of other Form 10-K sections to sustainability-related disclosure, namely the description of business (Item 101), and Risk Factors (Item 503c).[11] It further reminds registrants that they are required to disclose, in addition to the information expressly required by regulation, "such further material information, if any, as may be necessary to make the required statements, in light of the circumstances under which they are made, not misleading."[12]

10 TSC Industries v. Northway, Inc., 426 U.S. 438, 449 (1976)

11 SEC, Commission Guidance Regarding Disclosure Related to Climate Change (February 2010); and CF Disclosure Guidance: Topic No. 2 Division of Corporation Finance guidance regarding disclosure obligations relating to cybersecurity risks and cyber incidents (October 2011)

12 17 C.F.R. §230.408 and §240.12b-20, additional information.

The SASB published the first analysis of material sustainability disclosure in 2016. This report is the second annual edition, a follow-up analysis showing that while the disclosure of such information is slowly becoming more commonplace and more effective, much improvement is still needed.

Along with financial statement information, investors need sustainability information that is decision-useful. Research shows that more detailed disclosures enhance analysts' understanding and impact investors' decision making. One study, which focused on Form 10-K risk-factor disclosures—those required by Item 503(c) of Regulation S-K, which are included in this analysis—found that analysts are better able to assess fundamental risk when firms' risk-factor disclosures are detailed and avoid vague, abstract, or "boilerplate" language. It also found that the market more readily incorporates detailed information into stock prices, suggesting that such non-financial disclosures help investors better assess firms' financial statements.[13]

13 Ole-Kristian Hope, Danqi Hu, and Hai Lu, "The Benefits of Specific Risk-Factor Disclosures," February 26, 2016, Rotman School of Management Working Paper No. 245704, Singapore Management University School of Accountancy Research Paper No. 2015-35.

Standardized sustainability metrics, such as those included in the provisional standards developed by the SASB, add material information to the investor's economic calculus for pricing risk, comparing performance and allocating financial capital. This report is intended to better enable investors to identify where uncompensated risks and opportunities exist in their portfolios.

Note on Disclosure Examples

For illustrative purposes, this report includes many examples of corporate disclosure on key sustainability issues. However, these examples represent only a small portion of what is available in the Disclosure Intelligence Tool on the SASB Navigator. The tool enables users to search thousands of 10-K, 20-F, and 40-F filings from multiple fiscal years to pull up any disclosure by any company on any SASB topic. For more information on the Disclosure Intelligence Tool, see "The Future of Sustainability Reporting Analysis."

D. R. Horton, Inc. Form 10-K for FY ending September 30, 2016	**CalAtlantic Group, Inc. Form 10-K for FY ending December 31, 2016**	**Meritage Homes Corporation Form 10-K for FY ending December 31, 2016**
A health and safety incident relating to our operations could be costly in terms of potential liabilities and reputational damage. Building sites are inherently dangerous, and operating in the homebuilding industry poses certain inherent health and safety risks. Due to health and safety regulatory requirements and the number of projects we work on, health and safety performance is critical to the success of all areas of our business. Any failure in health and safety performance may result in penalties for non-compliance with relevant regulatory requirements, and a failure that results in a major or significant health and safety incident is likely to be costly and could expose us to liability that could be costly. Such a failure could generate significant negative publicity and have a corresponding impact on our reputation, our relationships with relevant regulatory agencies or governmental authorities, and our ability to attract customers and employees, which in turn could have a material adverse effect on our financial results and liquidity.	A major safety incident relating to our business could be costly in terms of potential liabilities and reputational damage. Building sites are inherently dangerous, and operating in the homebuilding industry poses certain inherent health and safety risks. Due to health and safety regulatory requirements and the number of projects we own, health and safety performance is critical to the success of all areas of our business. Any failure in health and safety performance may result in penalties for non-compliance with relevant regulatory requirements, and a failure that results in a major or significant health and safety incident or injury could expose us to liability that could be costly. Such a failure could generate significant negative publicity and have a corresponding impact on our reputation, our relationships with relevant regulatory agencies or governmental authorities, and our ability to attract customers, which in turn could have a material adverse effect on our business, financial condition and operating results.	A major safety incident relating to our operations could be costly in terms of potential liabilities and reputational damage. Building sites are inherently dangerous, and operating in the homebuilding industry poses certain inherent health and safety risks. Due to health and safety regulatory requirements and the number of projects we work on, health and safety performance is important to the success of our development and construction activities. Any failure in health and safety performance may result in penalties for non-compliance with relevant regulatory requirements, and a failure that results in a major or significant health and safety incident is likely to be costly and could expose us to claims resulting from personal injury. Such a failure could generate significant negative publicity and have a corresponding impact on our reputation, our relationships with relevant regulatory agencies or governmental authorities, and our ability to attract customers and employees, which in turn could have a material adverse effect on our business, financial condition and operating results. We and our subcontractors carry insurance that covers some of these risks.

Consider, for example, the preceding disclosures from a handful of companies in the "Home Builders" industry. These excerpts, which are taken from actual SEC filings for FY 2016, suggest that these companies recognize the inherent occupational health and safety risks in their daily operations; however, investors working with this information would be unable to properly price workforce health and safety risks into their decision-making. Nothing in these disclosures allows for users of such information to differentiate company performance; in fact, barring a few different words, these disclosures seem exactly the same.

As the second annual edition, this report also uses last year's findings as a baseline, allowing investors to see how trends in disclosure reflect the evolution of a company, an industry, or a sector's approach to specific sustainability issues. In sum, the aim of this analysis is to shine a light on hidden risks and opportunities and to help investors surface unknowns.

ANALYZING THE CURRENT STATE OF DISCLOSURE

For the second year in a row, the SASB has analyzed the current state of disclosure on the set of 434 provisional disclosure topics included in each of its industry-specific provisional standards. The analysis, the findings of which are highlighted in this report, identifies and categorizes the disclosure practices of the top 10 companies, by revenue,[14] in each of the 79 industries in the SASB's Sustainable Industry Classification System™ (SICS™). Overall, 731 annual SEC filings were analyzed, covering disclosure for FY 2016, and representing 695 unique companies.[15] The SASB performed this analysis between May and September 2017.

The analysis identified relevant disclosures in the latest available Form 10-K and Form 20-F (see Table 1 for the sections of SEC filings covered in the scope of the analysis). Using the definitions below and the decision tree illustrated in Figure 1, it then classified each disclosure based on the following categories:[16]

TABLE 1. Scope of Analysis

This analysis covers disclosures in the following sections of Forms 10-K and 20-F:

Regulation S-K	10-K	20-F	Name
§229.101	1	4B	Business
§229.503(c)	1A	3D	Risk Factors
§229.103	3	8A7	Legal Proceedings
§229.303	7	5	Management Discussion and Analysis (MD&A)
§229.305	7A	11	Quantitative and Qualitative Disclosures about Market Risks
§229.1010	8	8	Financial Statements

- No Disclosure: The company does not provide disclosure that is relevant to the topic under analysis.

- Boilerplate: The company provides disclosure using generic language that can be applicable to most, if not all, issuers in the industry. Such disclosure has not been sufficiently tailored to reflect the company's specific and unique circumstances, including, but not limited to, its past performance, future targets, and individual risk/opportunity management strategies. The disclosure thus does not provide the reader with sufficient and significant information to differentiate between the company and most, if not all, of its peers. Boilerplate disclosure may include industry-level generic language, such as descriptions of regulations affecting the company/industry, and company-level generic language, such as the use of words like "we," "our company," etc.

- Company-Tailored Narrative: The company provides disclosure using specific language that can only be understood in the context of the issuer. Such disclosure has been sufficiently tailored to reflect the company's specific and unique circumstances, including, but not limited to, its past performance, future targets, and individual risk/opportunity management strategies. The disclosure thus provides the reader with sufficient and significant information to differentiate between the company and most, if not all, of its peers; if analyzed outside the context of the company, such disclosure would not be applicable to other issuers. However, such disclosure may not provide information allowing for quantitative comparisons between companies.

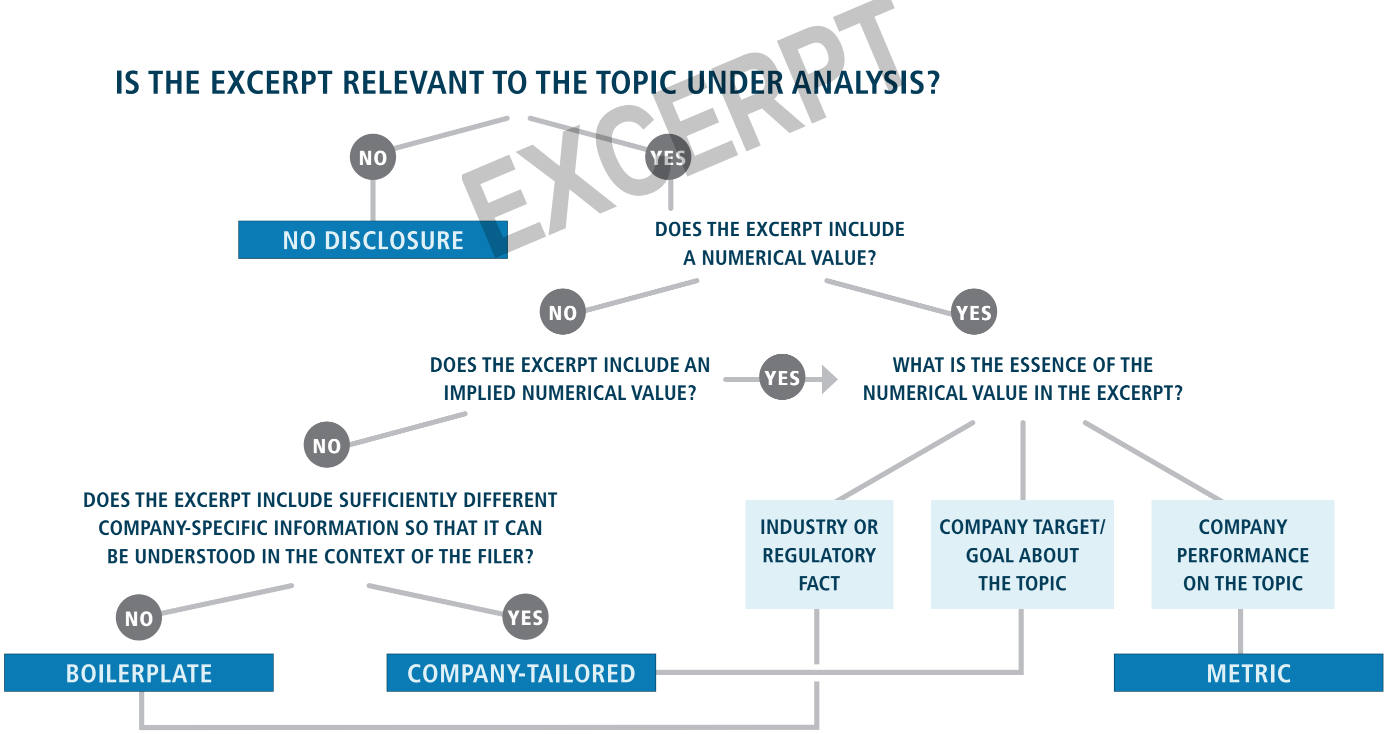
- Metrics: The company provides disclosure using quantitative performance indicators, which, by their nature, can be understood only in the context of the issuer. This excludes non-performance figures, such as a company's goals and/or targets. (See "Company-Tailored Narrative," above.)

14 Due to industry composition, the following industries had fewer than 10 companies to analyze: Health Care Distributors (7 companies), Security & Commodity Exchanges (4), Automobiles (8), Car Rental & Leasing (4), Rail Transportation (7), Education (8), Cruise Lines (4), Cable & Satellite (7), Tobacco (4), Drug Retailers & Convenience Stores (4), Appliance Manufacturing (6), Wind Energy (4), Fuel Cells & Industrial Batteries (8), Forestry & Logging (7), and Real Estate Services (9).

15 Twenty-seven companies were analyzed for more than one industry; these companies were considered "representative" for industries that are not their primary SICS industry. This included 21 companies that were analyzed for one additional "representative" industry; 3 companies that were analyzed for two additional "representative" industries (Wells Fargo & Company, Comcast Corporation, and Tesla, Inc.); and 3 companies that were analyzed for three additional "representative industries" (Bank of America Corp., Citigroup Inc., and JPMorgan Chase & Co.).

16 Generally speaking, disclosure effectiveness tends to improve with specificity. However, sometimes the use of metrics alone is insufficient without context provided by discussion and analysis. This is why many SASB metrics include a combination of both quantitative and qualitative disclosures. As appropriate—and consistent with Rule 12b-20—when disclosing information related to a sustainability topic, companies should consider including a narrative description of any material factors necessary to ensure completeness, accuracy, and comparability of the data reported.

Figure 1. Disclosure analysis methodology



The following excerpts from SEC filings illustrate each category of disclosure. The examples address the topic of water management in the “Metals & Mining” industry.

BOILERPLATE:

“Climate change, climate change legislation or regulations and greenhouse effects may adversely impact our operations and markets … The potential physical impacts of climate change on the Company’s operations are highly uncertain, and will be particular to the geographic circumstances. These may include changes in rainfall patterns, shortages of water or other natural resources, changing sea levels, changing storm patterns and intensities, and changing temperature levels. These effects may adversely impact the cost, production and financial performance of our operations.”

Source: Alcoa Corporation, Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE:

“Our mining operations depend on the availability of secure water supplies … Our mining operations require physical availability and secure legal rights to significant quantities of water for mining and ore processing activities, and related support facilities. Most of our North and South America mining operations are in areas where competition for water supplies is significant. Continuous production at our mines is dependent on many factors, including our ability to maintain our water rights and claims, and the continuing physical availability of the water supplies. In Arizona, where our operations use both surface and ground water, we are a participant in an active general stream adjudication in which the Arizona courts have been attempting, for over 40 years, to quantify and prioritize surface water claims for the Gila River, one of the state’s largest river systems, which primarily affects our Morenci, Safford and Sierrita mines … Water for our Cerro Verde operation in Peru comes from renewable sources through a series of storage reservoirs on the Rio Chili watershed that collects water primarily from seasonal precipitation. As a result of occasional drought conditions, temporary supply shortages are possible that could affect our Cerro Verde operations. In January 2016, the Peruvian government declared a temporary state of emergency with respect to the water supply in the Rio Chili Basin because of drought conditions. As a result, the Cerro Verde water rights from the Rio Chili were temporarily decreased during February 2016."

Source: Freeport-McMoRan, Inc., Form 10-K for FY ending December 31, 2016.

METRICS:

"Business Strategy … Commitment to sustainability … We are committed to promoting sustainable development, which means generating value for our shareholders and other stakeholders, and simultaneously improving health and safety of our workers, enhancing the well-being of the communities surrounding our operations and protecting the environment. This can be achieved through conscious and responsible management, corporate voluntary actions and cross-sectorial partnerships. Below is a list of measures illustrating our commitment to sustainability … We are also committed to reducing water use in our activities by investing in technologies and initiatives to control total water withdrawal, especially by promoting water reuse. In 2016, we withdrew a total of 426.3 million cubic meters of water, and used 394.3 million cubic meters in our operations (including discontinued operations), with the balance being allocated to third parties. From the total volume of water used in 2016, 80% or 1.6 billion cubic meters was reused."

Source: Vale SA, Form 20-F for FY ending December 31, 2016.

In all, more than 4,110 entries were categorized according to this four-tiered labeling system. Out of this number, a total of 3,397 entries included relevant disclosures: all possible entries minus those categorized as "No Disclosure." When a given company provided multiple disclosures on a single topic—for example, addressing the topic once in the Risk Factors section of its 10-K and again in the Management Discussion and Analysis (MD&A) section—only the highest-quality disclosure was considered in the presentation of this report's results. In other words, each entry corresponds to the highest-quality disclosure provided by any given company on any given topic.

HOW TO USE THIS REPORT

The following sections present a variety of tables, rankings, and excerpts intended to provide readers with a detailed overview of how public companies are currently reporting material sustainability information in mandatory filings with the SEC. This analysis is intended to help investors identify whether they are—or are not—making informed decisions with respect to key sustainability factors. In so doing, they will develop a more nuanced understanding of the risk-return profile of their holdings.

For example, when a given SASB topic is characterized by a preponderance of boilerplate disclosure, or none at all, an investor can assume that any risks or opportunities associated with the topic are not being accurately reflected in company stock prices within the industry. Investors who adopt a more fundamental, bottom-up approach to portfolio construction may wish to compare the disclosure practices of specific companies to these industry benchmarks. Further, the prevalence of such low-quality disclosure across all topics within an industry or sector may indicate significant risk exposure for investors, particularly those using a top-down, sector-based approach. (See "Interpreting the Results," below.)

Additionally, in using this report and the information it contains, asset owners and managers may wish to consider how they can use their influence to help improve the quality of the material sustainability information being disclosed to the capital markets. For example:

- Investors might join a SASB Advisory Group or engage with the SASB's sector analysts to help improve the relevance and decision-usefulness of the standards.

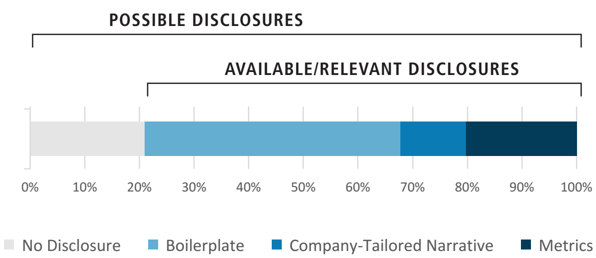
- Investors might encourage their portfolio companies to practice more effective disclosure of material sustainability information by incorporating SASB standards into their SEC filings.

INTERPRETING THE RESULTS

This report uses a variety of statistics, charts, tables, comparative analysis, and technically specific terminology to present its findings. To ensure this information is accurately interpreted, certain clarifications are necessary.

First, it is important to define the key terminology used in the report. A precondition of assessing the effectiveness of existing sustainability disclosure is determining where such disclosure is available and where it is not. In reviewing SEC filings, the SASB considered all ***possible disclosures***. (In Figure 2, this is represented by the entire bar, including the gray and blue areas.) For example, the provisional SASB standard for the "Auto Parts" industry includes six disclosure topics, meaning each company in the industry has six opportunities to provide disclosure. If a company reports information relevant to four of those topics (and provides no disclosure on the remaining two topics), those four represent the ***available, or relevant, disclosures***.[17] (In Figure 2, the available disclosures are represented by the blue areas of the bar.)

Figure 2. Illustration of key terminology

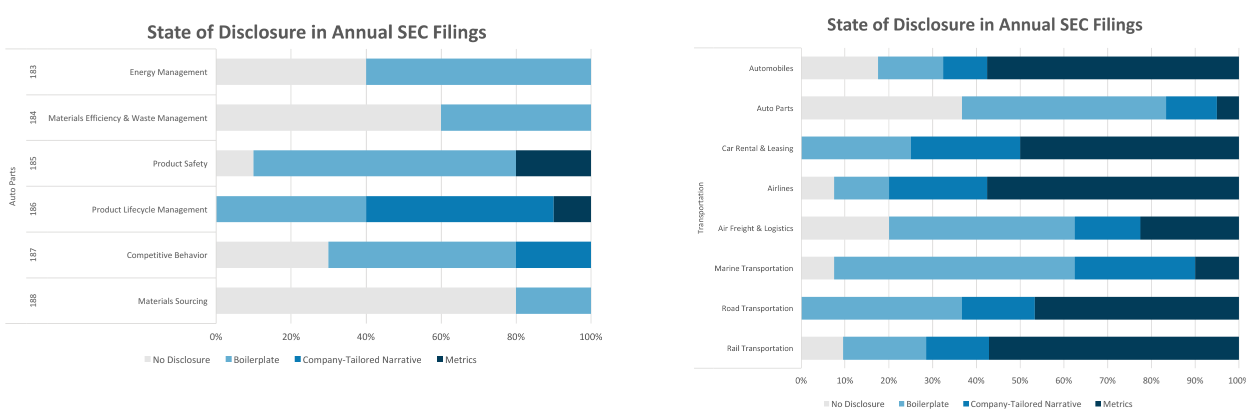


After identifying the available disclosures, the SASB then assesses each one for its degree of effectiveness (i.e., boilerplate, company-tailored narrative, or metrics). This represents the ***disclosure quality***. Thus, the percentages cited in the sections of this report that discuss "disclosure quality" use available disclosures as their denominator. In this way, disclosure quality differs from ***disclosure level***, which simply captures the percentage of possible disclosures that resulted in available disclosures. For instance, building on the example above, the auto parts manufacturing company's disclosure level would be 66.7 percent because it provided disclosure on four of six industry topics. Thus, the percentages cited in the sections of this report that discuss "disclosure levels" use possible disclosures as their denominator.

Secondly, it is important to note that the report presents its findings using two different types of bar charts. There are important differences in how the two types of charts should

17 In some sections of this report, the term "relevant disclosures" is used synonymously with "available disclosures."

Figure 3. Differences between topic-level vs. aggregated data bar charts



Topic-Level Bar Charts

(e.g., in the Appendices)

Topic-level bar charts represent the percentage of companies providing disclosure on each topic that fall into each category of disclosure quality.

For example, from the graph above, we can conclude that 30 percent of companies in the Auto Parts industry do not provide disclosure on the "Competitive Behavior" topic; whereas 20 percent of companies provide disclosure in the form of metrics for the "Product Safety" topic.

Aggregated Data Bar Charts

(e.g., in the Overview and Sector Overviews sections)

Aggregated data bar charts represent the percentage of possible disclosures analyzed across all topics that fall into each category of disclosure quality.

For example, from the graph above, we can conclude that, across all companies and topics in the "Auto Parts" industry, around 36 percent of possible disclosures were categorized as "No Disclosure," whereas only 5 percent were labeled as "Metrics."

be interpreted, which are summarized in Figure 3. At the most granular level, the appendices of this report present an analysis of each industry-level disclosure topic. The data included in these topic-level bar charts represent the percentage of companies in the industry providing disclosure in each category of quality (including "no disclosure"). Meanwhile, the bar charts included in other sections of the report, such as the Overview and Sector Overviews sections, aggregate data across multiple topics, industries, and/or sectors. In these aggregated data bar charts, the percentages represent the share of all possible disclosures that fall into each category of disclosure quality (including "no disclosure"). Note that this is not equivalent to the percentage of companies providing disclosure in each quality category.

Finally, although this analysis is an annual exercise and therefore represents a continuation of the 2016 report (which analyzed disclosure practices for FY 2015), readers must exercise caution in drawing conclusions regarding comparative analyses over time. Each year's findings represent an analysis of the disclosure practices for the largest companies in each industry for that year. Therefore, the analysis will not necessarily cover the same set of companies from one year to the next, given competitive forces that affect industry composition as well as market activity (such as mergers, acquisitions, de-listings, etc.). As mentioned, this year's report includes an analysis of 731 annual SEC filings, representing the largest companies in each of the 79 industries in SICS; of that number, 588 filings (80 percent) were also analyzed for the same industry in last year's report. For the most part, the results presented in the "Year-on-Year Comparison" sections below don't necessarily show how disclosure practices have changed for the same set of companies over time; rather, they show how disclosure practices for the largest companies in each industry have shifted. Underlying reporting differences—that is, those from the same sample of companies analyzed in last year's report—are occasionally discussed but in less detail.

OVERVIEW

Although this report aims to supply insight to all investors, those who employ a top-down approach to portfolio construction are most likely to benefit from the big-picture takeaways summarized in this section.

OVERALL TRENDS

At the highest level of aggregation across the entire economy—including all sectors, industries, and topics—the SASB's FY 2016 analysis found that both disclosure levels and quality were very similar to those in FY 2015. Overall results for FY 2016 are presented in Figure 4.

Such incremental change is consistent with expectations. For a variety of reasons, including strict deadlines, exacting processes, and important liability considerations, companies' financial reporting in annual filings—especially in the sections included in this analysis—is not typically a dynamic and changing practice from year to year. For example, many companies include the same risk factors in the same order with the same explanation from one year to the next.

Significant year-over-year changes are more likely in the following cases:

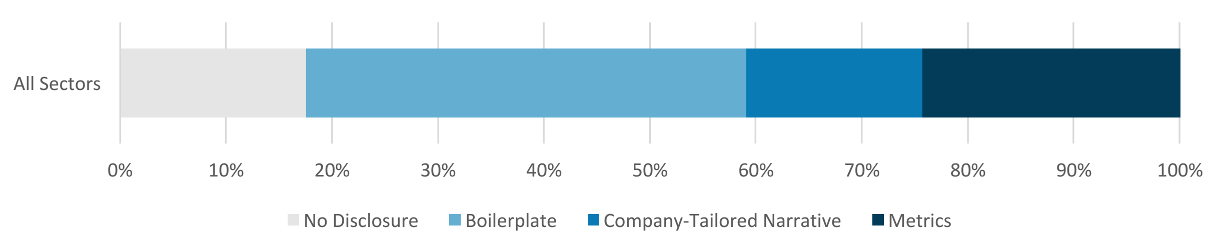
- New legislation, regulations, and/or agreements focusing on specific sustainability topics are enacted. For example, disclosure on greenhouse gas emissions changed in FY 2016 relative to FY 2015, likely because of, at least in part, nationally determined contributions related to the signing of the Paris Agreement drafted at the Conference of the Parties of the United Nations Framework Convention on Climate Change in December 2015.
- Operational threats emerge, rapidly evolve, or materialize. Improvements in disclosure tend to be reflective of reactive, rather than proactive, initiatives. Consider, for example, the following disclosure on data security from Yahoo, Inc. (see following page). The improvement in disclosure was a result of cybersecurity breaches materializing, rather than a proactive effort by the company to provide better disclosure. After revealing a high-profile security breach in 2016, the company's disclosure on the topic (which had consisted of boilerplate language the year before) included metrics detailing the number of affected user accounts and contingent costs to date.

DISCLOSURE LEVELS

The SASB's analysis for FY 2016 found that 82.5 percent of possible entries analyzed, across all sectors and topics, included some type of disclosure. Furthermore, across all sectors, 73 percent of companies reported on at least three-quarters of the sustainability topics included in their industry's SASB standard, and 42 percent provided disclosure on every SASB topic. Again, both figures are slightly higher than they were one year ago (69 and 39 percent, respectively). These figures clearly indicate that companies across every sector of the economy continue to acknowledge that the majority of the sustainability factors identified in the SASB's provisional standards are reasonably likely to have material impacts on their business.

Figure 4. Sustainability disclosure in SEC filings for FY 2016

(All disclosure topics in 79 industries across 11 sectors—4,118 possible disclosures)



Yahoo, Inc., Form 10-K for FY ending December 31, 2015

If our security measures are breached, our products and services may be perceived as not being secure, users and customers may curtail or stop using our products and services, and we may incur significant legal and financial exposure.

Our products and services involve the storage and transmission of Yahoo's users' and customers' personal and proprietary information in our facilities and on our equipment, networks and corporate systems. Security breaches expose us to a risk of loss of this information, litigation, remediation costs, increased costs for security measures, loss of revenue, damage to our reputation, and potential liability. Outside parties may attempt to fraudulently induce employees, users, or customers to disclose sensitive information to gain access to our data or our users' or customers' data. In addition, hardware, software or applications we procure from third parties may contain defects in design or manufacture or other problems that could unexpectedly compromise network and data security. Additionally, some third parties, such as our distribution partners, service providers and vendors, and app developers, may receive or store information provided by us or by our users through applications integrated with Yahoo. If these third parties fail to adopt or adhere to adequate data security practices, or in the event of a breach of their networks, our data or our users' data may be improperly accessed, used or disclosed. Security breaches or unauthorized access have resulted in and may in the future result in a combination of significant legal and financial exposure, increased remediation and other costs, damage to our reputation and a loss of confidence in the security of our products, services and networks that could have an adverse effect on our business. We take steps to prevent unauthorized access to our corporate systems, however, because the techniques used to obtain unauthorized access, disable or degrade service, or sabotage systems change frequently or may be designed to remain dormant until a triggering event, we may be unable to anticipate these techniques or implement adequate preventative measures. If an actual or perceived breach of our security occurs, the market perception of the effectiveness of our security measures could be harmed and we could lose users and customers.

Yahoo, Inc. Form 10-K for FY ending December 31, 2016

Security Incidents … On September 22, 2016, we disclosed that a copy of certain user account information for approximately 500 million user accounts was stolen from Yahoo's network in late 2014 (the "2014 Security Incident"). The Company believes the user account information was stolen by a state-sponsored actor. The user account information taken included names, email addresses, telephone numbers, dates of birth, hashed passwords (the vast majority with the "bcrypt" hashing algorithm) and, in some cases, encrypted or unencrypted security questions and answers. Our forensic investigation indicates that the stolen information did not include unprotected passwords, payment card data, or bank account information. Payment card data and bank account information are not stored in the system that the investigation found to be affected. We have no evidence that the state-sponsored actor is currently in or accessing the Company's network.

On December 14, 2016, we disclosed that, based on our outside forensic expert's analysis of data files provided to the Company in November 2016 by law enforcement, we believe an unauthorized third party stole data associated with more than one billion user accounts in August 2013 (the "2013 Security Incident"). We have not been able to identify the intrusion associated with this theft, and we believe this incident is likely distinct from the 2014 Security Incident. For potentially affected accounts, the user account information stolen included names, email addresses, telephone numbers, dates of birth, hashed passwords (using the MD5 algorithm) and, in some cases, encrypted or unencrypted security questions and answers. The stolen information did not include passwords in clear text, payment card data, or bank account information.

In November and December 2016, we disclosed that our outside forensic experts were investigating the creation of forged cookies that could allow an intruder to access users' accounts without a password. Based on the investigation, we believe an unauthorized third party accessed the Company's proprietary code to learn how to forge certain cookies. The outside forensic experts have identified approximately 32 million user accounts for which they believe forged cookies were used or taken in 2015 and 2016 (the "Cookie Forging Activity"). We believe that some of this activity is connected to the same state-sponsored actor believed to be responsible for the 2014 Security Incident. The forged cookies have been invalidated by the Company so they cannot be used to access user accounts…

We recorded expenses of $16 million related to the Security Incidents in the year ended December 31, 2016, of which $5 million was associated with the ongoing forensic investigation and remediation activities and $11 million was associated with nonrecurring legal costs. The Security Incidents did not have a material adverse impact on our business, cash flows, financial condition, or results of operations for the year ended December 31, 2016. However, we have subsequently incurred additional expenses related to the Security Incidents to investigate and take remedial actions to notify and protect our users and systems, and expect to continue to incur investigation, remediation, legal, and other expenses associated with the Security Incidents in the foreseeable future. We will recognize and include these expenses as part of our operating expenses as they are incurred. The Company does not have cybersecurity liability insurance.

DISCLOSURE QUALITY

Despite this widespread recognition that a company's management—or mismanagement—of sustainability issues can have material impacts, the quality of corporate disclosure on such topics remains lacking in FY 2016. For example, less than a third (29.5 percent) of available disclosures contained performance metrics, while more than half (50.4 percent) used boilerplate language and an additional 20.1 percent included tailored narrative.

Legal and Compliance Considerations Related to Boilerplate Disclosure

One popular location for the disclosure of material sustainability information is the Management Discussion and Analysis (MD&A) section of SEC filings, which requires that companies address known trends, uncertainties, and events that are reasonably likely to have a material impact on the company's financial condition or results of operations. Importantly, SEC interpretive guidance on MD&A disclosure emphasizes that companies should identify and discuss key performance indicators, both financial and non-financial, used to manage the business and that would be material to investors.[18]

Additionally, boilerplate disclosure may not necessarily be the best approach from a securities law liability standpoint. For an in-depth discussion of legal liability issues, see the SASB's publication "Legal Roundtable on Emerging Issues Related to Sustainability Disclosure"[19] and a legal memorandum prepared for that roundtable by the law firm K&L Gates.[20]

18 SEC Release No. 33-8350 [68 FR 75055] (December 2003).

19 Sustainability Accounting Standards Board, "Legal Roundtable on Emerging Issues Related to Sustainability Disclosure" (2017), available at http://library.sasb.org.

20 Nicholas G. Terris, "Some Liability Considerations Relating to ESG Disclosures," K&L Gates (May 2017), available at http://www.klgates.com/some-liability-considerations-relating-to-esg-disclosures-05-01-2017.

Although boilerplate language is the most prevalent form of sustainability disclosure, certain companies are leading the way in providing comparable, decision-useful performance metrics to investors and other users of financial filings (See "Standout Reporting Demonstrates Leadership" sidebar.)

Although these findings, presented in Figure 5, indicate modest improvements in disclosure effectiveness from FY 2015 to FY 2016, they nevertheless demonstrate that many companies continue to take a minimally compliant—and arguably risky—approach to sustainability disclosure. (See "Legal and Compliance Considerations Related to Boilerplate Disclosure" sidebar.)

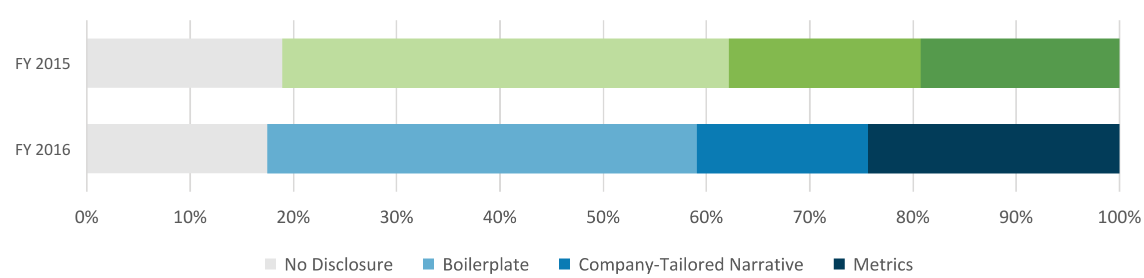
YEAR-ON-YEAR COMPARISON

Across all sectors and topics, reporting levels increased between FY 2015 and FY 2016, moving from 81 to 82.5 percent (a modest uptick of 1.5 percentage points). Additionally, disclosure quality also improved over time. Quantitative reporting—that is, the use of metrics—jumped from 23.7 percent of available disclosures in FY 2015 to 29.5 percent in FY 2016 (an increase of 5.7 percentage points). Meanwhile, the use of boilerplate decreased from 53.3 percent of available disclosures to 50.4 percent (a decrease of 2.9 percentage points).

Underlying reporting levels—that is, those from the same sample of companies analyzed in last year's report—also show an upward trend. Between FY 2015 and FY 2016, these increased by 2.1 percentage points. The aggregate improvement in disclosure effectiveness is also observable when analyzing disclosure quality for the same set of companies from last year's report. Underlying use of metrics jumped by 5.1 percentage points between fiscal years, while the underlying use of boilerplate decreased by 3.2 percentage points.

Aside from these underlying trends, the slight improvements in both reporting levels and disclosure effectiveness are likely a result of three intertwining factors: the inclusion of more large-market-

Figure 5. Sustainability disclosure in SEC filings for FY 2016 vs. FY 2015



Standout Reporting Demonstrates Leadership

This year's analysis shows that boilerplate language is the most prevalent form of sustainability disclosure. However, certain companies are leading the way in providing comparable, decision-useful performance metrics to investors and other users of financial filings.

For example, in the "Real Estate" industry, where 75 percent of possible disclosures were either non-existent or boilerplate—and where metrics represented just 12 percent of available disclosures—both Host Hotels & Resorts and Kilroy Realty Corporation reported SASB metrics for energy and water management in their 10-K filings, as seen in the following sections:

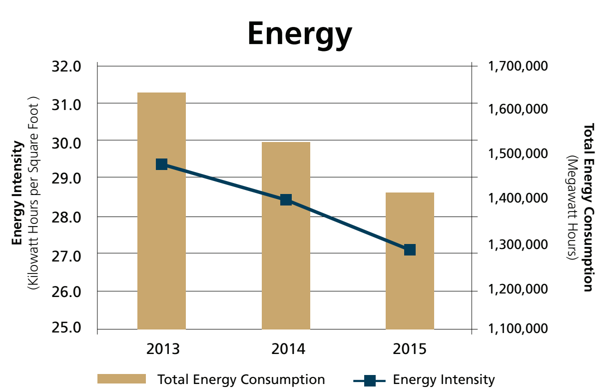
Host Hotels & Resorts, Inc., Form 10-K for FY ending December 31, 2016

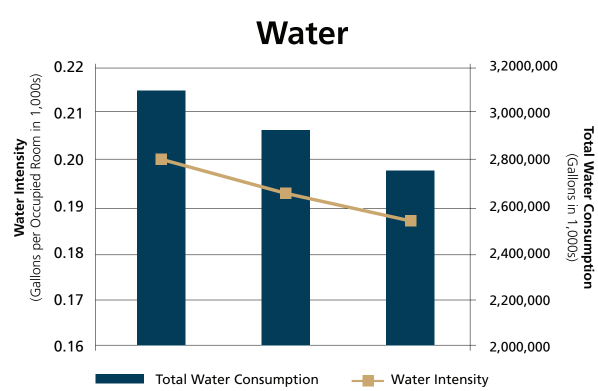
Corporate Responsibility. Our corporate responsibility strategy focuses on a set of complementary objectives across three themes:

- Responsible Investment …
- Environmental Stewardship …
- Corporate Citizenship …

In March 2016, the Sustainability Accounting Standards Board ("SASB") issued the provisional standard, Real Estate Owners, Developers & Investment Trusts Sustainability Accounting Standard. The provisional standard outlines proposed disclosure topics and accounting metrics for the real estate industry. The recommended energy and water management metrics that best correlate with our industry include energy consumption data coverage as a percentage of floor area ("Energy Intensity"); total energy consumed by portfolio area ("Total Energy Consumption"); water withdrawal as a percentage of total floor area, or number of units (for our calculation we use occupied rooms) ("Water Intensity"); and total water withdrawn by portfolio area ("Total Water Consumption"). The energy and water data we use is collected and reviewed by third-parties who compile the data from property utility statements. These metrics enable us to track the effectiveness of water and energy reduction ROI projects.

We reference key aspects and metrics of our sustainability efforts through the Global Reporting Initiative ("GRI") Index, in accordance with the GRI framework and, beginning in 2015, contracted with a third-party to provide further verification of our energy and water consumption data. The charts below detail our Energy Intensity, Total Energy Consumption, Water Intensity and Total Water Consumption for 2013 through 2015, the last three fiscal years for which data is available (1):





(1) Energy and water metrics relate to our consolidated domestic hotels owned for the entire year presented. The water data excludes one domestic hotel in 2013, 2014 and 2015, as reliable utility data was not available.

Kilroy Realty Corporation, Form 10-K for FY ending December 31, 2016

Business and Growth Strategies

… Sustainability Strategies. We make excellence in sustainability a core competence by:

• managing our properties to offer the maximum degree of utility and operational efficiency to tenants. We offer tenant sustainability programs focused on helping our tenants reduce their energy and water consumption and increase their recycling diversion rates. Many of our assets are in zones impacted by California's drought, and as such face the risk of increased water costs and fines for high consumption. We have mitigated these risks through comprehensive, proactive water reductions throughout our portfolio, including domestic fixture upgrades, cooling tower optimizations, a comprehensive leak detection program, and irrigation systems retrofits. We also incorporate green lease language into 100% of our new leases, including a cost recovery clause for resource-efficiency related capital in full-service gross leases, which align tenant and landlord interests on energy, water and waste efficiency. Green leases (also known as aligned leases, high performance leases or energy efficient leases) align the financial and energy incentives of building owners and tenants so they can work together to save money, conserve resources and ensure the efficient operation of buildings. We were honored in 2014 to be part of the inaugural class of Green Lease Leaders, the Institute for Market Transformation's ("IMT's") program to encourage green leasing in real estate. In 2016, IMT honored us again with two Green Lease Leaders Team Transaction awards. Energy and water consumption data for the last three audited years are as follows:

Energy Consumption

	Energy Consumption Data Coverage as % of Floor Area	Total Energy Consumed by Portfolio Area with Data Coverage (MWh	% of Energy Generated From Renewable Resources	Like-for-Like Change in Energy Consumption of Portfolio Area with Data Coverage	% of Eligible Portfolio that has Obtained an Energy Rating and is Certified to ENERGY STAR
2015	92%	273,381	3%	(5) %	65%
2014	88%	267,391	4%	(2) %	56%
2013	84%	261,191	3%	(2) %	53

	Water Withdrawal Data Coverage as a % of Total Floor Area	Total Water Withdrawn by Portfolio Area (kgal)	Like-for-like Change in Water Withdrawn for Portfolio Area with Data Coverage
2015	94%	832,737	(11) %
2014	92%	950,357	(2) %
2013	89%	900,809	1 %

• building our current development projects to Leadership in Energy and Environmental Design ("LEED") specifications. All of our office development projects are now designed to achieve LEED certification, either LEED Platinum or Gold;

• actively pursuing LEED certification for approximately 1.1 million square feet of office space under construction. In addition, an analysis of energy performance is included in our standard due diligence process for acquisitions, and reducing energy use year over year is a comprehensive goal of our operational strategy. This is accomplished through systematic energy auditing, mechanical, lighting and other building upgrades, optimizing operations and engaging tenants. During the past few years we have significantly enhanced the sustainability profile of our portfolio, ending 2016 with 51% of our properties LEED certified and 69% of eligible properties ENERGY STAR certified. During 2016, the Company was recognized for our sustainability efforts with multiple industry leadership awards, including NAREIT's 2016 Office Leader in the Light Award and ENERGY STAR Partner of the Year Sustained Excellence award. The Company was also recognized by the Global Real Estate Sustainability Benchmark as the North American leader in sustainability for the third year in a row, and was ranked first among 178 North American participants across all asset types.

Similarly, and despite being part of an industry where disclosure levels across all topics are only 52 percent and use of boilerplate is commonplace, FuelCell Energy, Inc., discusses sustainability risks and opportunities in its latest available Form 10-K using the five disclosure topics identified in the SASB's Provisional Standard for its industry: "Product efficiency," "Energy management," Product end-of-life management," "Workforce health and safety," and "Materials Sourcing." Moreover, disclosure on some of these topics is provided in quantitative form.

Standout companies were not limited to industries in which disclosure is generally poor, however. For example, in the "Airlines" industry, where disclosure was abundant and relatively high-quality, one company—JetBlue—elected to augment its 10-K disclosure with a standalone report including the SASB disclosure topics and metrics for its industry. Although the SASB believes material sustainability information should be disclosed in SEC filings, it recognizes that some companies may first use the standards in reports outside such filings before incorporating them. When the SASB standards are codified in 2018, more companies are likely to use them in SEC filings.

cap companies in the sample; the inclusion of more "representative" companies relative to last year; and a methodological change in how certain disclosure excerpts were classified.

- Market capitalization: Last year's disclosure analysis found that large-cap companies—particularly Form 20-F filers—were more likely to report metrics and less likely to use boilerplate narrative in their annual SEC filings. This result supported previous research that has established a positive and significant correlation between a firm's size and the quality of its voluntary disclosures.[21] Large-market-capitalization companies represented 49 percent of all companies in the sample in last year's analysis, a figure that increased to 53 percent to this year. It follows that the inclusion of a higher share of large-cap companies would create a positive impact on this year's results, especially since, as posited before, disclosure practices are generally inelastic from year to year.

- "Representative" companies: SICS classifies every company within one of its 79 industries. However, firms are often integrated vertically or horizontally across multiple industries. This fact is reflected in reporting practices, especially as companies describe risk factors, macro trends, and evolving business opportunities. For example, in SICS, Comcast Corporation is primarily classified as a cable and satellite company; however, the company is also involved in media production and distribution activities and is the owner and operator of theme parks and other leisure facilities worldwide. To properly analyze the current state of disclosure for these non-primary industries, the SASB included so-called representative companies into the analysis. Last year, 21 such companies were included, and each was analyzed for an additional secondary industry. This year, the analysis includes 27 representative companies, 21 of which were analyzed for one additional industry; three of which were analyzed for two additional industries; and another three of which were analyzed for three non-primary industries. While the change might seem small, this difference adds up when considering the number of topics in each of the non-primary industries. Companies that operate across industries tend to be conglomerates with large market capitalizations; therefore, the inclusion of more representative companies in this year's analysis has similar impacts to those described above.

- Methodology: A methodological change in how certain excerpts were classified in last year's analysis versus this year's is likely behind the increase in the share of observed quantitative reporting. The SASB's Provisional Standards include several discussion and analysis guidelines that suggest companies should provide a tailored description of "strategies or plans to manage sustainability issues"—such as reduction targets for greenhouse gas emissions—and "an analysis of performance against those targets." Last year, disclosure examples that comply with this definition were categorized as "Company-Tailored Narrative" because they were part of the universe of discussion and analysis (qualitative) guidelines. This year, however, these excerpts were categorized as "Metrics" because, in addition to providing detailed narrative on a company's sustainability management strategies, they also include performance (quantitative) information against their sustainability goals.

21 M. Lang and R. Lundholm, "Cross-Sectional Determinants of Analyst Ratings of Corporate Disclosures," Journal of Accounting Research 31, no. 2 (1993): 246–71.

DIFFERENCES AMONG SECTORS AND INDUSTRIES

The broad trends described above apply to the majority of industries across every sector. However, significant differences were found to exist between (and within) sectors. For example, both disclosure levels and quality varied considerably across sectors and industries, particularly in the use of boilerplate language and metrics. (See Figure 6.)

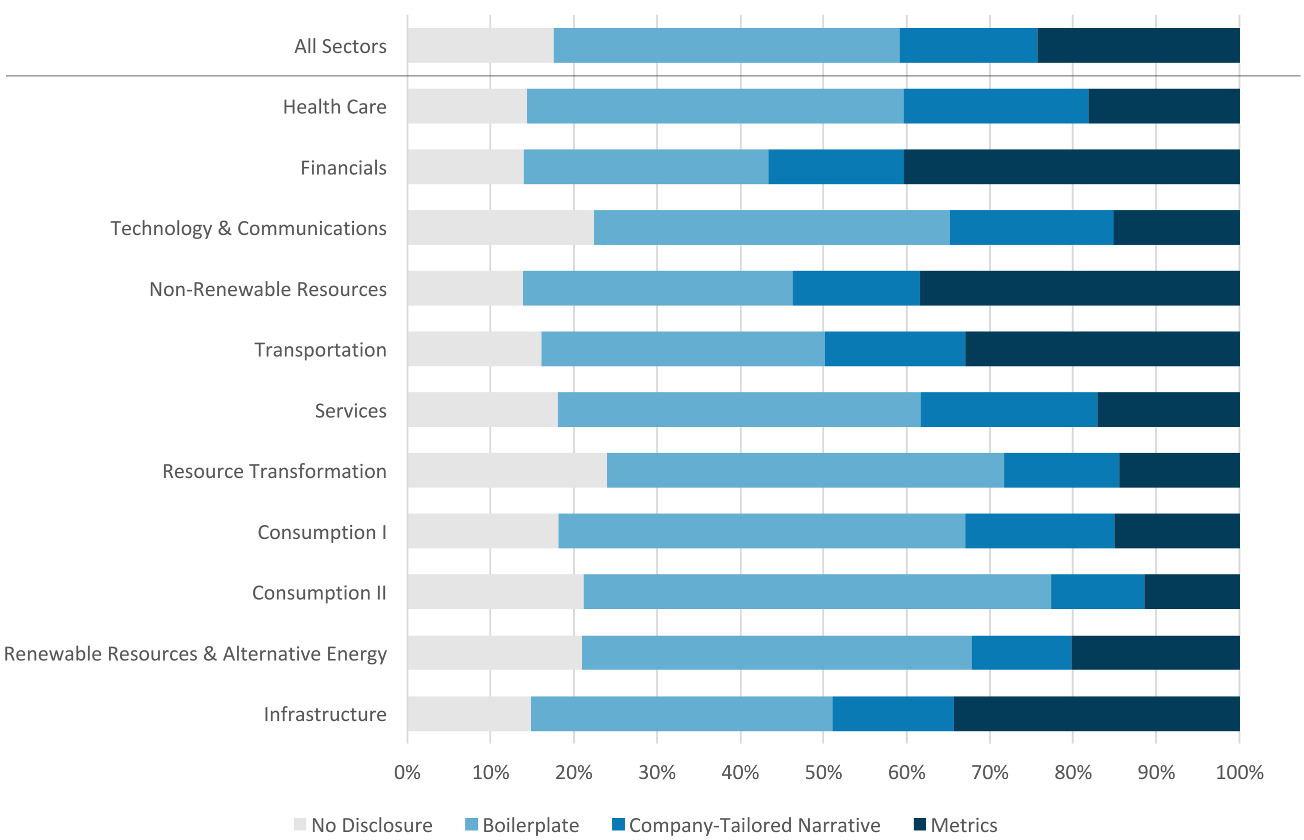
The trends summarized below—and others—will be covered in greater detail in the following sections of this report, along with a ranked list of all 79 SICS industries and overviews providing key insights into each sector.

DISCLOSURE LEVELS

The SASB's analysis generally found higher levels of disclosure in sectors characterized by high levels of regulatory oversight, including "Health Care," "Financials," "Non-Renewable Resources," and "Infrastructure," all of which had reporting levels of about 85 to 86 percent. Meanwhile, disclosure was generally less common in highly innovative sectors, such as "Resource Transformation" (76 percent), "Technology & Communications" (78 percent), and "Renewable Resources & Alternative Energy" (79 percent).

Generally speaking, higher disclosure levels came from customer-facing industries with strong brand reliance, and lower disclosure levels came from upstream, business-to-business (B2B) industries. (See "Industry Rankings" section.) However, this is not always apparent at the sector level because aggregate results can obfuscate industry-level results. Within sectors, disclosure practices often varied considerably from one industry to the next as well as among firms within the sector. (See Table 2). For example, although disclosure levels for the "Services" sector as a whole (82 percent) were slightly lower than the economy-wide average (83 percent), more than half (53 percent) of companies in the sector provided disclosure on every topic included in their indus-

Figure 6. Sustainability disclosure in SEC filings for FY 2016 (by sector)



try standard—much higher than the 42 percent of companies across all sectors.

Table 2. Company coverage of SASB topics in SEC filings for FY 2016 (by sector)

% of companies analyzed that provide disclosure on:	ALL disclosure topics in industry's SASB standard	At least 75% of disclosure topics in industry's SASB standard
All Sectors	42.1%	72.8%
Health Care	40.4%	71.9%
Financials	51.6%	84.4%
Technology & Communications	25.0%	76.7%
Non-Renewable Resources	43.8%	78.8%
Transportation	55.1%	84.1%
Services	52.8%	65.2%
Resource Transformation	16.0%	54.0%
Consumption I—Food & Beverage	43.8%	73.4%
Consumption II—Consumer Goods & Retail	38.6%	68.6%
Renewable Resources & Alternative Energy	36.7%	63.3%
Infrastructure	45.6%	74.7%

DISCLOSURE QUALITY

Although the big-picture trends noted above were found to hold across nearly all sectors and most industries, the SASB's analysis generally found that sustainability disclosure tended to be of somewhat higher quality overall in highly regulated sectors such as "Financials," "Non-Renewable Resources," and "Infrastructure." For example, 47 percent of available disclosures in the "Financials" sector used metrics, along with 45 percent in the "Non-Renewable Resources" sector—the only two sectors whose use of metrics outpaced their use of generic boilerplate. At the other end of the spectrum, disclosure in the "Consumption II—Consumer Goods & Retail" sector was characterized by a high prevalence of boilerplate language (71 percent of available disclosures) and very few metrics (15 percent). This result was also observed in the "Resource Transformation" sector, where 63 percent of available disclosures were boilerplate, compared with only 19 percent metrics; and the "Consumption I—Food & Beverage" sector, where 60 percent of available disclosures were boilerplate and only 18 percent were metrics. (See Table 3).

Again, disclosure effectiveness was generally found to be higher among business-to-customer industries than their upstream counterparts. In addition, disclosure effectiveness at the industry and sector level was strongly influenced by the type of sustainability issues they face. (See "Differences among Sustainability Dimensions" section.)

Table 3. Quality of available sustainability disclosure in SEC filings for FY 2016 (by sector)

% of Available Disclosures	Boilerplate	Tailored Narrative	Metrics
All Sectors	50.4%	20.1%	29.5%
Health Care	53%	26%	21%
Financials	34%	19%	47%
Technology & Communications	55%	25%	20%
Non-Renewable Resources	38%	18%	45%
Transportation	41%	20%	39%
Services	53%	26%	21%
Resource Transformation	63%	18%	19%
Consumption I—Food & Beverage	60%	22%	18%
Consumption II—Consumer Goods & Retail	71%	14%	15%
Renewable Resources & Alternative Energy	59%	15%	26%
Infrastructure	42%	17%	40%

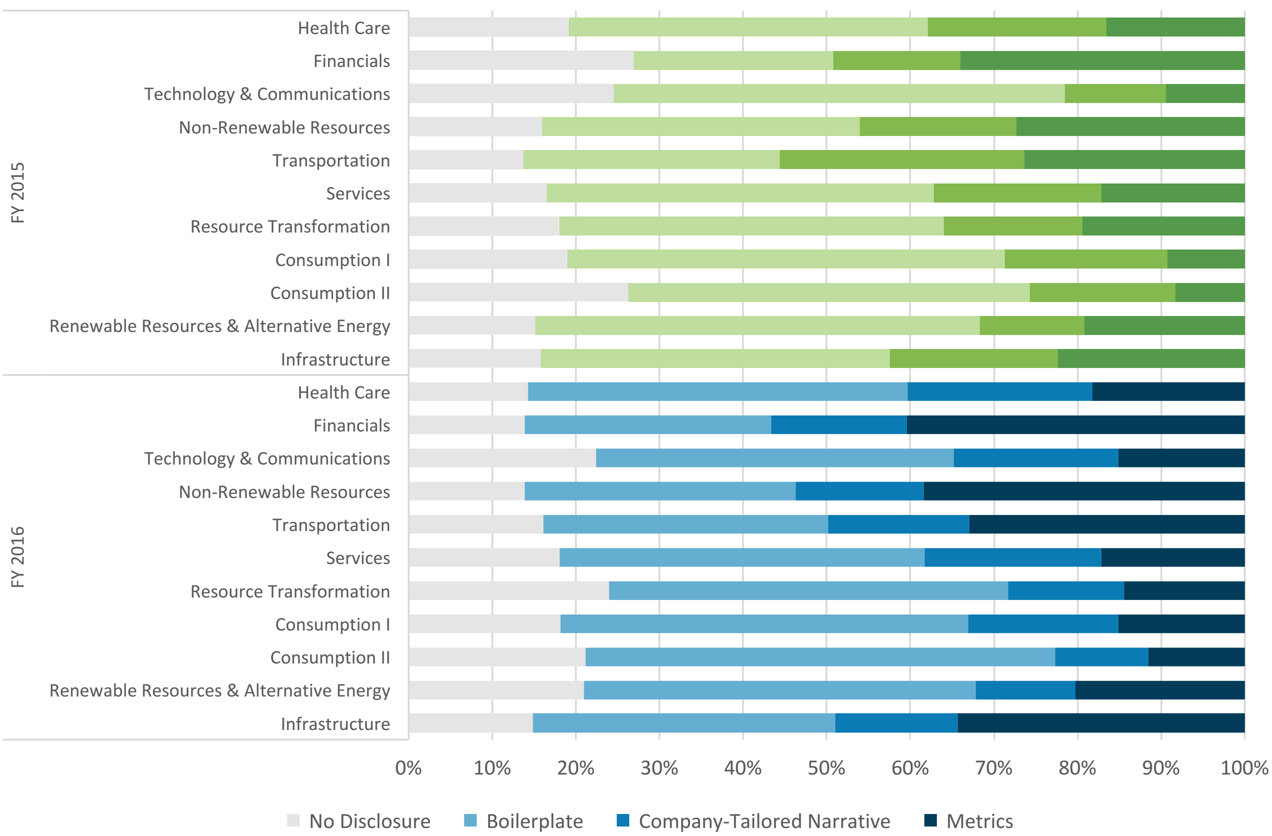
YEAR-ON-YEAR COMPARISON

Although the overall findings of the analysis—at the highest level of aggregation—resulted in very similar findings from FY 2015 to FY 2016, a number of differences in both disclosure levels and quality were revealed at the sector level. (See Figure 7.)

Reporting levels in the "Financials" sector improved the most from last year (increasing from 73 to 86 percent). This result is mainly driven by the inclusion of more "representative" companies in the sector. Diversified banks such as Bank of America Merrill Lynch, Citigroup, Wells Fargo, and JPMorgan Chase—whose disclosure practices were analyzed against only one industry's topics in last year's analysis—were analyzed for multiple industries this time around. The "Consumption II—Consumer Goods & Retail" and "Health Care" sectors also showed improved levels of reporting, albeit to a lesser magnitude. On the other hand, disclosure levels dropped the most for the "Resource Transformation" and "Renewable Resources & Alternative Energy" sectors. (See the "Sector Overview" section for additional information.)

In terms of disclosure quality, the use of metrics remained constant or improved in all sectors between FY 2015 and FY 2016, except for the "Resource Transformation" sector. In line with what has already been discussed, the most notable improvements came from highly regulated sectors such as "Infrastructure," where quantitative reporting increased from 27 to 40 percent of available disclosures, and "Non-Renewable Resources," where the use of metrics rose from 33 to 45 percent of available disclosures. Overall, transportation and technology and communication companies also showed smaller improvements. This general uptick in the use of metrics was accompanied by a decrease in boilerplate reporting in almost all sectors, most notably in the "Technology & Communications" sector. A higher prevalence of boilerplate reporting was observed in the following sectors: "Resource Transformation," "Consumption II—Consumer Goods & Retail," and "Transportation." These year-over-year differences are discussed in further detail in the "Sector Overviews" section.

Figure 7. Sustainability disclosure in SEC filings for FY 2016 vs. FY 2015 (by sector)



DIFFERENCES AMONG SUSTAINABILITY DIMENSIONS

Beyond the key differences found between sectors and industries, the SASB's analysis also identified interesting patterns (see Figure 8) related to its five broad sustainability dimensions:[22]

1. Environment
2. Social Capital
3. Human Capital
4. Business Model and Innovation
5. Leadership and Governance

DISCLOSURE LEVELS

In general, companies most commonly address the SASB topics related to social capital: reporting levels for topics centered on social considerations stand at 90 percent. Disclosure on topics related to the management of environmental risks and opportunities from daily operations are also relatively high, at 83 percent. Meanwhile, companies much less frequently address the SASB topics related to business model and innovation; reporting levels for these topics are 72 percent. These findings echo last year's results and provide additional insight into why certain sectors and industries outperform others in terms of disclosure levels: the nature of the sustainability risks and opportunities faced by each sector or industry drive reporting levels.

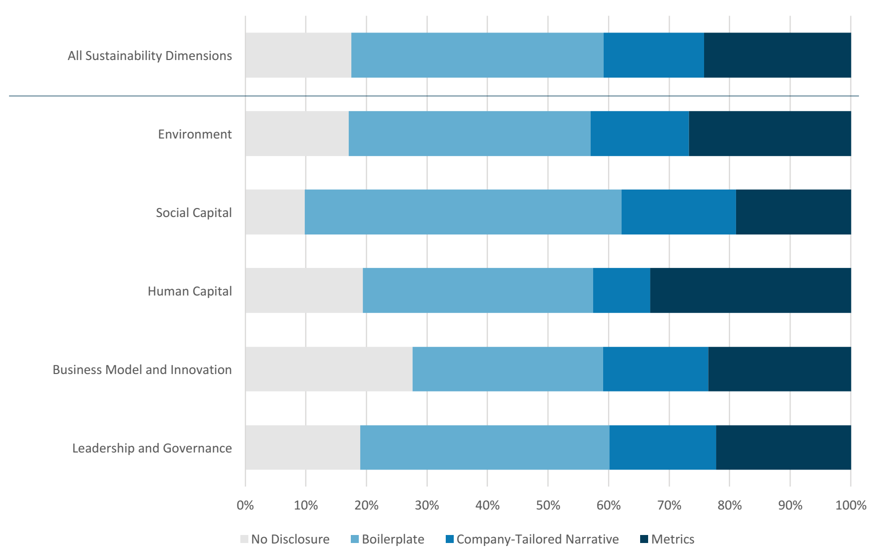
Several factors are likely driving these results. On the one hand, local, state, national, and global regulations aimed at reducing negative environmental and/or social externalities—such as those focused on curbing greenhouse gas emissions, managing hazardous waste, and minimizing product safety incidents, among others—are commonplace in multiple industries. These regulatory forces drive companies to include relevant narrative in their annual SEC filings. On the other hand, novel business practices and product innovation initiatives are not always driven by changes in regulations and are a result of internal corporate strategies that companies may choose to keep to themselves for competitive reasons. (Notably, a market standard would level the playing field and alleviate such concerns.)

DISCLOSURE QUALITY

Nevertheless, as the analysis found more broadly, quantity does not necessarily yield quality. As with the FY 2015 results, boilerplate language was the most common form of disclosure across all sustainability dimensions. (See Table 4.) Interestingly, although social capital topics were more frequently addressed, they were also most often characterized by lower-quality disclosure: 58 percent of available disclosures used boilerplate language, and only 21 percent used metrics. (See "Cross-Cutting Issues: Data Security" sidebar.) On the other hand, while disclosures relating to "Business Model & Innovation" were less frequent, they tended to be of somewhat higher quality, with 33 percent of available disclosures using metrics and 43 percent consisting of boilerplate. Finally, human capital disclosures tended to be of the highest quality, with 41 percent of available disclosures using metrics—much more than was found in the other dimensions. Intuitively, these results make sense. While regulations aimed at reducing negative social externalities arguably drive reporting on such topics, the market has normally found it more difficult to quantify these risks than, say, environmental and human capital risks. Relatively speaking, social key performance indicators are less prevalent than more established environmental and human capital metrics—such as greenhouse gas emissions, water use,

22 These five dimensions of sustainability are defined in more detail in the SASB's Conceptual Framework, available at https://www.sasb.org/approach/conceptual-framework-2/.

Figure 8. Sustainability disclosure in SEC filings for FY 2016 (by sustainability dimension)



waste generation, injury rates, and employee diversity and inclusion. Similarly, while reporting levels for innovation topics may be lower than for any other sustainability dimension, it is likely that when companies do provide disclosure on these topics, such information will be more tailored to a company's unique product-driven innovation strategies.

Table 4. Quality of available sustainability disclosure in SEC filings for FY 2016 (by sustainability dimension)

% Relevant Disclosures	Boilerplate	Tailored Narrative	Metrics
All Sustainability Dimensions	50.4%	20.1%	29.5%
Environment	48%	20%	32%
Social Capital	58%	21%	21%
Human Capital	47%	12%	41%
Business Model and Innovation	43%	24%	33%
Leadership and Governance	51%	22%	28%

YEAR-ON-YEAR COMPARISON

These findings proved highly stable from 2015 to 2016. Disclosure levels remained constant or improved only slightly for all sustainability dimensions, except for a small drop in human capital reporting levels (83 percent in FY 2015 to 81 percent in FY 2016). Disclosure levels for social and innovation-related topics improved the most, relative to the other categories.

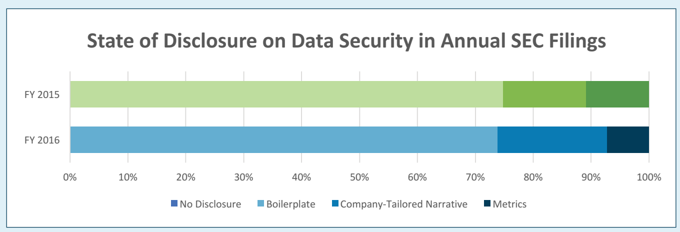
Changes in disclosure effectiveness were also positive. The use of metrics increased across all sustainability dimensions. The biggest improvements came in quantitative reporting on topics related to leadership and governance (from 19 percent of available disclosures to 28 percent), and on environmental risks (from 25 to 32 percent). These results were also accompanied by a decrease in boilerplate reporting; for leadership and governance topics, boilerplate use decreased from 55 to 51 percent of available disclosures; whereas for environmental topics, generic reporting dropped from 53 to 48 percent of available disclosures.

A comparison of results for the same set of companies analyzed in last year's report shows similar trends. Underlying reporting levels also increased for topics in all sustainability dimensions, except for "Human Capital." The increased use of metrics across all sustainability dimensions is also observable with same-company data. As with the overall results, topics under the "Leadership & Governance" dimension show the highest improvement; however, the uptick in the use of metrics for environmental topics is slightly lower.

Cross-Cutting Issues: Data Security

The SASB's standard-setting process is evidence-based, market-informed, and validated through research and quantitative analysis focused on determining whether performance on a given topic would affect the financial condition and operating performance of a company in a specific industry. Every topic that appears in a SASB Standard is subject to this industry-specific bottom-up process, and although this is intended to surface the industry-specific impacts of sustainability issues, many of those issues are identified as being reasonably likely to have material impacts in more than one industry—in other words, their effects cut across a variety of sectors and industries.

These "cross-cutting issues" are included in many of the SASB Provisional Standards and addressed by many companies in their SEC filings. Where last year's report highlighted disclosure practices with respect to climate risks—broken down in three main types of impacts: physical, transitional, and regulatory—this year's report features data security. "Data security" refers to the technologies, processes, and practices that companies employ to protect networks, computers, programs, digital products, and data from external attacks, damage, or unauthorized access. Data security risks are included in the Provisional Standards of 12 industries in SICS. The results below suggest all companies in each of these industries recognize the operational and reputational risks from more frequent and sophisticated cyber-attacks; in other words, disclosure levels on this topic are 100 percent. This result is true for both fiscal years for which data is available. However, most reporting—almost three-quarters of available disclosures in both



fiscal years—is provided using generic language, which, as posited earlier, is not particularly useful for investment decision-making.

Such "horizontal" analyses of issues—as opposed to "vertical" analyses of sectors and industries, like those presented elsewhere in this report—can prove useful to a variety of investors. In particular, they may be especially helpful to those investors who employ "thematic" strategies that involve a top-down approach to portfolio construction based on forward-looking trends, such as long-term headwinds or tailwinds. For example, in the context of data security, a variety of risks and opportunities go hand-in-hand with the approach of "smart grid" technologies and the "Internet of things." Therefore, investors are likely to benefit from assessing their exposure to the issue as a way to inform portfolio-level decision-making and corporate engagement efforts.

The SASB issued a technical bulletin on climate risk[23] last year and plans to release additional bulletins regarding other cross-cutting issues, such as cybersecurity and human capital, in 2018.

23 Sustainability Accounting Standards Board, *Climate Risk Technical Bulletin* (October 2016). Available at https://library.sasb.org/climate-risk-technical-bulletin.

DIFFERENCES BETWEEN DOMESTIC AND FOREIGN DOMICILED FILERS

The analysis also found considerable differences in reporting practices between Form 10-K filers and Form 20-F filers. (See Figure 9.) In general, foreign private issuers (20-F filers) provided more—and higher quality—disclosures than did domestic issuers (10-K filers). These differences are likely due to a variety of factors, including the following:

- Impending European regulation: Many foreign corporations listed on U.S. exchanges operate in the European Union, where Directive 2014/95/EU of the European Parliament and the Council of the European Union aims to increase transparency and performance on sustainability matters. Although companies have until 2018 to fully comply, many have likely already begun incorporating these disclosures into their reporting cycle.

- Differing views of governance: At U.S.-based firms, boards of directors often view maximization of shareholder value as the number one priority of their fiduciary duty. Meanwhile, companies in other parts of the world, most significantly in Europe, typically consider the interests of a broader group of stakeholders, including employees and clients. As a result of this difference, such companies may be more culturally attuned to their sustainability impacts and more likely to disclose relevant information.

- The "integrated reporting" movement: Many foreign companies, particularly those in Europe, Latin American, and South Africa, have begun to produce "integrated reports," which are designed to communicate how a firm uses all its resources, financial and non-financial, to create value over the short, medium, and long term. Thus, such companies are more likely to address many of the SASB topics in their annual reports, which sometimes are incorporated as exhibits and cross-referenced in certain sections of their Forms 20-F.

DISCLOSURE LEVELS

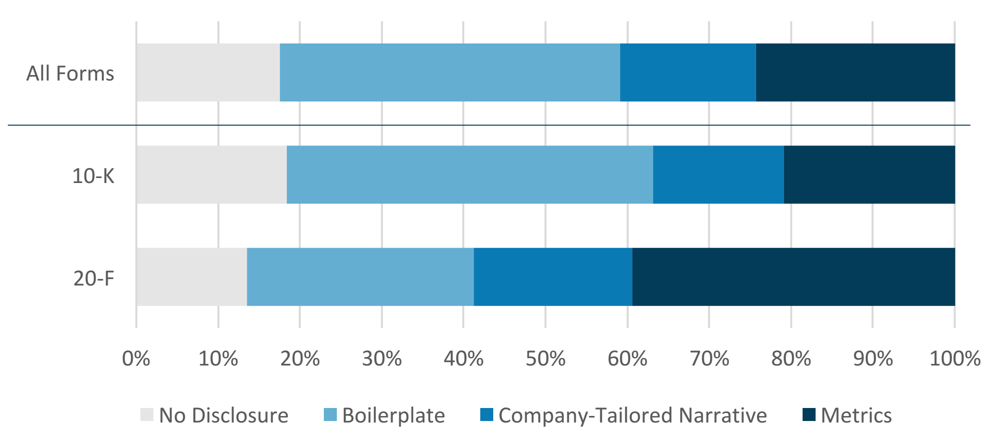
In general, foreign private issuers (20-F filers) produced more disclosure than did domestic issuers. For example, 20-F filers had a disclosure level of 87 percent, compared with 82 percent for 10-K filers. This trend appears to be regional, which may be due to jurisdictional differences in regulation, cultural norms, and/or listing requirements for companies on multiple exchanges. (See Figure 10.) For example, companies domiciled in Europe and the "Americas—Emerging" region (basically Latin America) were ahead of the curve, with disclosure levels of 90 and 85 percent, respectively. Meanwhile, companies in the "Americas—Developed" region (basically the U.S.) performed better in aggregate than companies domiciled only in emerging Asian markets in terms of disclosure levels (82 percent versus 70 percent).

DISCLOSURE QUALITY

Likewise, 20-F filers generally produced sustainability disclosure of higher quality than their domestic counterparts. For example, 20-F filers used metrics far more frequently than did 10-K filers (46 percent of available disclosures versus 26 percent). Meanwhile, boilerplate reporting was prevalent in Form 10-Ks; in fact, more than half of all relevant disclosures identified in this year's analysis (55 percent) were labeled as such (compared with 32 percent from 20-F filers).

Again, many of these trends appear to be regional. Most notably, European-domiciled companies tended to outperform those from other regions, possibly a reflection of strengthening regulations and the rise of "integrated reporting." These European firms used metrics more than companies in any other region (just under 50 percent of available disclosures). To a somewhat lesser extent, companies in the "Americas—Emerging" and "Asia Pacific—Developed" regions also performed relatively well in their use of metrics (both about 38 percent of available disclosures). Boilerplate language is the most common form

Figure 9. Sustainability disclosure in SEC filings for FY 2016 (by type of filing)



of disclosure in all regions except Europe and—by a very small margin—developed Asian markets.

YEAR-ON-YEAR COMPARISON

Disclosure levels improved slightly for both Form 10-K and 20-F filers between fiscal years. This uptick, however, was higher for foreign private issuers with reporting levels increasing from 84 to 86 percent (compared with an increase from 80 to 81 percent for 10-K filers). Changes in disclosure quality were also positive, with quantitative reporting improving and generic disclosure decreasing for both types of filers. Interestingly, these trends were more notable for foreign private issuers. The use of metrics by 20-F filers increased from 34 to 46 percent of available disclosures—a jump of more than 10 percentage points—compared to an increase from 21 to 26 percent for 10-K filers. Meanwhile, the use of boilerplate decreased from 41 to 31 percent of available disclosures for 20-F filers (compared with a drop from 57 to 55 percent for 10-K filers). These results suggest that the disclosure levels and disclosure effectiveness gaps between 10-K and 20-F filers identified in last year's report are widening.

Last year's results pointed to considerable differences in reporting practices based on geographical region, with Latin American and European companies having considerably higher levels of reporting than their U.S.-domiciled counterparts. These regional results extend to disclosure effectiveness as well. The use of metrics increased more for European companies (38 to 50 percent of available disclosures) and Latin American companies (29 to 38 percent) than for American companies (from 21 to 26 percent). At the other end of the spectrum, the use of boilerplate decreased across all regions.

The improvements in reporting levels were also observed in the underlying, same-company data. Disclosure levels for 20-F filers increased by 3.1 percentage points, while those for 10-K filers jumped by 1.8 percentage points. These results continue to suggest that there is a widening gap in terms of disclosure availability, even when the analysis considers only the same sample of companies in both fiscal years. This widening gap also exists in terms of disclosure effectiveness. The underlying use of metrics increased by 8.3 percentage points for 20-F filers and 4.3 percentage points for 10-K filers. Meanwhile, underlying boilerplate use decreased by 5.2 percentage points for 20-F filers and 2.7 percentage points for 10-K filers.

Figure 10. Sustainability disclosure in SEC filings for FY 2016 (by region)

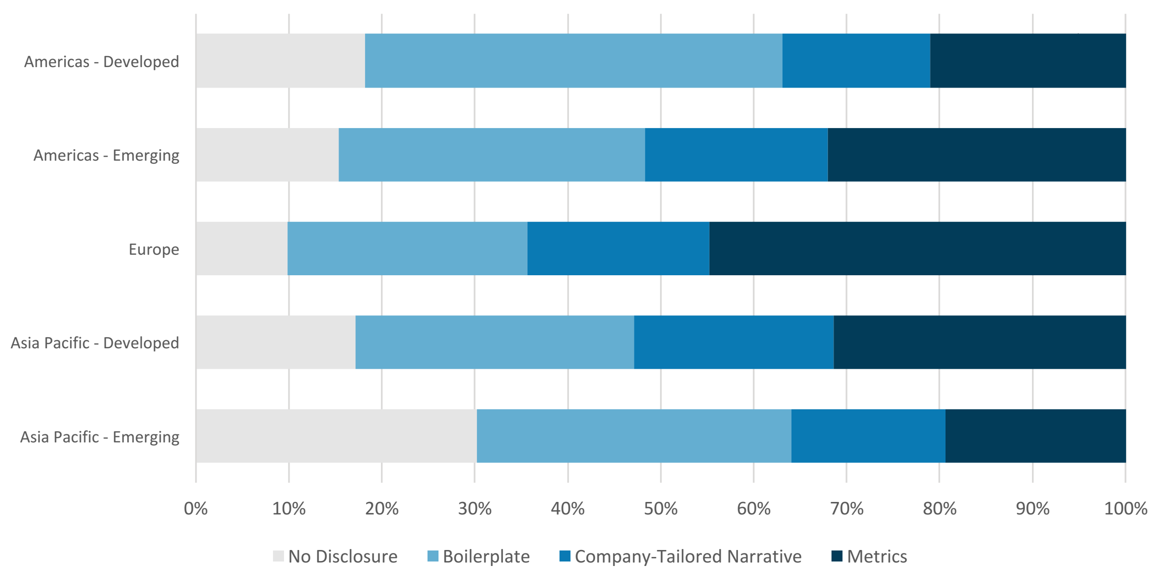
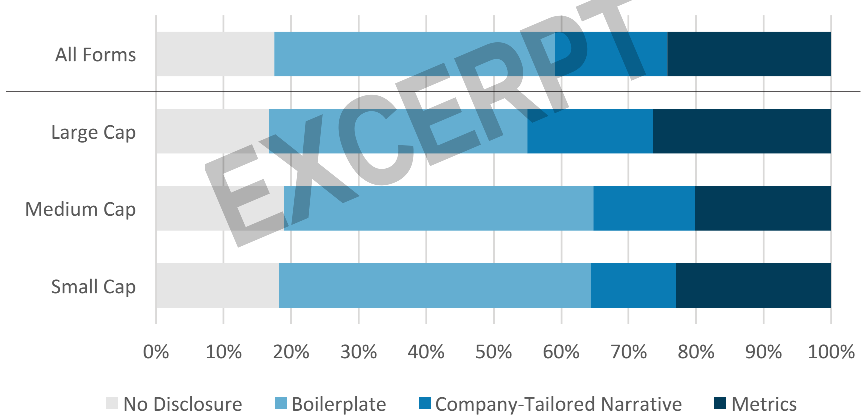


Figure 11. Sustainability disclosure in SEC filings for FY 2016 (by market capitalization)



DIFFERENCES BY MARKET CAPITALIZATION

The SASB's analysis covered SEC filings made by 695 unique issuers, including 356 large-cap firms (more than $10 billion), 181 medium-cap firms ($2 billion to $10 billion), and 158 small-cap firms (less than $2 billion).[24] As Figure 11 suggests, the analysis identified differences in reporting practices—especially in disclosure effectiveness—based on company size.

DISCLOSURE LEVELS

No significant differences were found in terms of disclosure levels; all three groups provided some form of reporting for 81 to 83 percent of all possible disclosures. However, a more detailed analysis reveals possible sector-level and regional differences. (See Figure 12.) For example, large-cap companies had higher levels of disclosure than their smaller peers in the following sectors: "Infrastructure," "Consumption I—Food & Beverage," "Consumption II—Consumer Goods & Retail," and "Services." Regionally, large-cap 20-F filers significantly outperformed all other segments in terms of disclosure levels (88 percent, compared with 82 percent for all segments of 10-K filers). Meanwhile, within the group of 10-K filers, large-cap companies only slightly outperformed small- and medium-cap companies in terms of disclosure level (82 to 81 percent of possible disclosures).

DISCLOSURE QUALITY

More significant differences were found in terms of disclosure effectiveness. As mentioned earlier, previous research has established a positive and significant correlation between a firm's size and the quality of its voluntary (i.e., not line-item) disclosures.[25] In line with the findings of previous researchers, when the entire sample of filings was considered, large-cap companies were more likely to use metrics (32 percent of available disclosures) and considerably less likely to use boilerplate language (46 percent of available disclosures) than were small- (28 percent metrics and 57 percent boilerplate) and medium-cap (25 percent metrics and 57 percent boilerplate) issuers.

Again, these findings may be attributable to sectorial and regional influences. The findings suggest that large-cap companies in six sectors have a higher use of metrics than their smaller peers,[26] while the use of boilerplate is lower by large-cap companies in seven sectors.[27] Regionally, disclosure practices of 20-F filers strongly impact the aggregate results. For example, large-cap 20-F filers considerably outpaced other segments in the use of metrics (53 percent of available disclosures for large-cap 20-F filers, compared with levels ranging from 23 to 35 percent for all other categories of filers). Meanwhile, contrary to previous research, large-cap 10-K filers lagged behind their small-cap counterparts on at least one measure of disclosure quality: the use of metrics (26 to 29 percent of available disclosures).

YEAR-ON-YEAR COMPARISON

Disclosure levels remained basically unchanged for both small- and medium-cap companies, while improving only slightly for large-cap firms (jumping from 81 to 83 percent). This suggests a small but widening gap in disclosure availability between the large firms and their smaller peers.

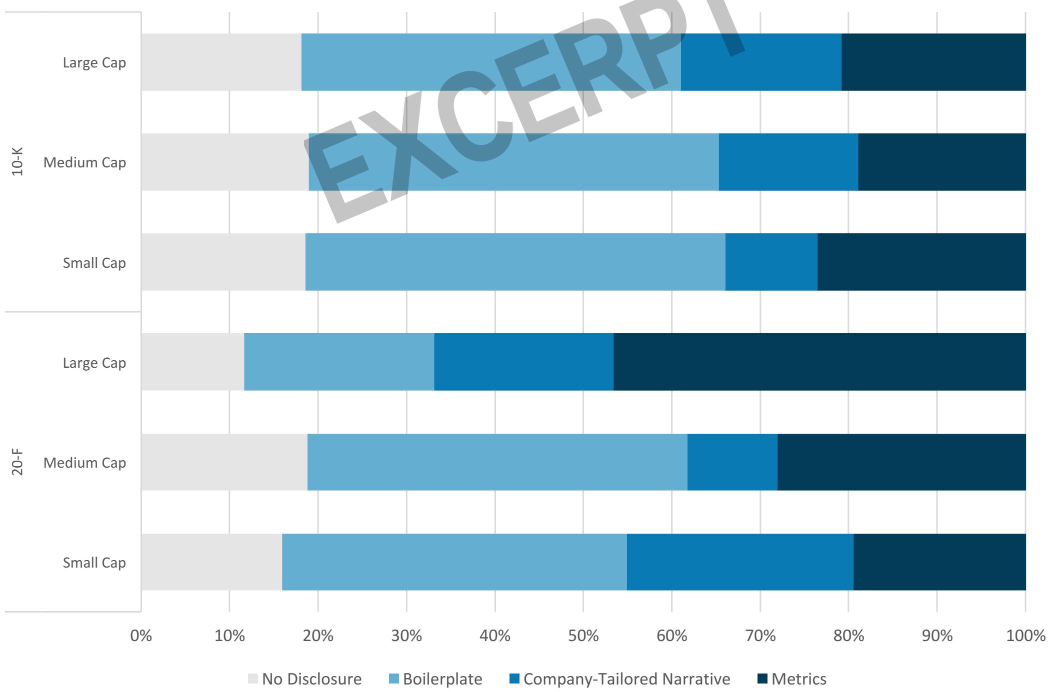
24 Market capitalization figures calculated as of April 2017.

25 M. Lang and R. Lundholm, "Cross-Sectional Determinants of Analyst Ratings of Corporate Disclosures," Journal of Accounting Research, 31, no. 2 (1993): 246–71.

26 Sectors where the use of metrics by large-market-capitalization companies is higher than by smaller companies include "Financials," "Non-Renewable Resources," "Transportation," "Consumption I—Food & Beverage," "Consumption II—Consumer Goods & Retail," and "Infrastructure."

27 Sectors where the use of boilerplate by large-market-capitalization companies is lower than by smaller companies include "Financials," "Non-Renewable Resources," "Transportation," "Resource Transformation," "Consumption I—Food & Beverage," "Consumption II—Consumer Goods & Retail," and "Infrastructure."

Figure 12. Sustainability disclosure in SEC filings for FY 2016 (by market capitalization and type of filing)



In terms of disclosure effectiveness, large-cap companies also showed the highest uptick in quantitative reporting: the use of metrics by this group increased from 25 to 32 percent of available disclosures. While small- and medium-cap companies also showed improvements on this front, the increase was smaller (from 22 to 28 percent, and from 22 to 25 percent of available disclosures, respectively). Meanwhile, the use of boilerplate decreased for all types of companies, with larger cap companies also showing bigger changes than their smaller peers.

Data from the same sample of companies analyzed in last year's report show similar trends. Companies with large market capitalizations show the highest uptick in reporting levels: an increase of 3.2 percentage points from last year's baseline. This supports the idea of a widening gap in terms of disclosure availability. Same-company changes in underlying disclosure effectiveness also show a higher use of metrics and lower use of boilerplate for all types of companies. However, unlike the overall results, these improvements are more notable for smaller-cap firms.

SECTOR OVERVIEWS

Sustainability has no one-size-fits-all definition. Rather, each industry has its own unique sustainability profile. Industries may use different resources to create goods and services to meet societal needs, and they may have different impacts on the environment and society at large. Therefore, the key dimensions of sustainability—and the underlying risks and opportunities that need to be managed to create and protect value—also vary from industry to industry.

In its standards, the SASB addresses the most crucial sustainability considerations for each business sector and industry by leveraging SICS. Where other traditional classification systems take either a supply-side, production-oriented approach or a demand-side, market-oriented approach to classifying companies, SICS uses a methodology focused on impacts, which can have implications for either side. Thus, it builds on and complements traditional classification systems by grouping issuers into sectors and industries in accordance with a fundamental view of their business model, their resource intensity and sustainability impacts, and their sustainability innovation potential.

Although diversification is the golden rule of investment strategy, most equity allocations within portfolios are diversified on the basis of such factors as market capitalization (small, medium, large), valuation (value, growth, blend), and geography (domestic, foreign). These factors remain highly valuable, but there is increasing evidence to support that a sector-based diversification strategy can lead to more manageable portfolio risk and still yield high portfolio returns.[28] By adapting traditional industry classification systems to reflect the unique sustainability profiles of sectors and industries, SICS provides the building blocks for a more precise portfolio construction that takes into account the impact of sustainability on the risk-return profile and correlation of industries and sectors.

Just as sustainability risks and opportunities differ from one industry and sector to the next, so do the levels and quality of disclosure on these topics—as seen at the sector-level in Figure 6, in the "Differences among Sectors and Industries" section. The charts that follow aggregate disclosure practices at the industry and sector levels, which can be useful, particularly from a "macro" perspective, to investors who favor a top-down approach to portfolio construction, in the following ways:

- Investors can develop a deeper understanding of the impact of sustainability-related trends at the industry and sector levels, thus enabling better peer-to-peer comparisons in terms of sustainability performance;
- Investors can analyze sector and/or industry contributions to a portfolio's risk-return profile;
- Investors can consider how sector-based allocation might enable sustainability-related thematic investment strategies; and
- Investors can reduce inter-sector correlation based on uncompensated sustainability risk.

Additionally, in last year's publication, the SASB showcased disclosure examples for 22 important cross-cutting sector topics. To provide additional insights into current disclosure practices for a wider variety of topics, this year's report will showcase disclosure examples for a different pair of topics per sector, as described in Table 5. (See the "Topic Spotlight Year-on-Year Comparisons" appendix for a summary of the changes in reporting made by some companies for the topics included in last year's report.)

28 State Street Global Advisors, *The Rising Tide of Sector and Industry Investing*, 2016. See also, Fidelity, "Equity Sectors: Essential Building Blocks for Portfolio Construction," June 2013.

Table 5. Disclosure topic spotlights for FY 2016 and FY 2015

Topic Spotlight Sections			
FY 2016		**FY 2015**	
Consumption I—Food & Beverage			
Water management	Environmental and social impacts of supply chains	Food safety	Health and nutrition
Consumption II—Consumer Goods & Retail			
Product safety	Energy management in manufacturing, distribution, and/or retail operations	Data privacy and security	Supply chain management and materials sourcing
Financials			
Environmental risk exposure	Integration of ESG factors in advisory, underwriting and brokerage activities	Integration of ESG factors in core operations (several industries)	Employee incentives and risk-taking
Health Care			
Employee recruitment, development, and retention	Ethical marketing	Affordability and pricing transparency	Counterfeit drugs
Infrastructure			
End-use efficiency and demand-side management	Workforce health and safety	Greenhouse gas emissions	Resource-use efficiency
Non-Renewable Resources			
Reserves valuation and capital expenditures	Operational and occupational safety	Water management	Greenhouse gas emissions
Renewable Resources & Alternative Energy			
Climate-related risks	Workforce health and safety	Environmental and social impacts of project development	Air quality
Resource Transformation			
Hazardous waste management	Health, safety and emergency management	Energy management	Product design for resource-use efficiency
Services			
Workforce diversity and inclusion	Nutritional content	Fair labor practices	Energy management
Technology & Communications			
Employee diversity, inclusion, recruitment, development, and retention	Data privacy	Supply chain management and materials sourcing	Data security
Transportation			
Accidents and safety Management	Materials efficiency and recycling	Safety of automobiles	Environmental footprint of fuel use

CONSUMPTION I—FOOD & BEVERAGE

The sector's sustainability profile is characterized by generally higher levels of impacts associated with the environment and social capital, both in direct operations and along the supply chain. Important environmental topics across the sector include those related to land use and resource efficiency—energy, water, and waste management—during the production and sourcing of crops, animal protein, and processed foods. Social topics that industries in the sector must grapple with are generally focused on customer health, safety, and wellbeing and the responsible marketing and labeling of products.

Table 6. Consumption I—Food & Beverage sector disclosure practices

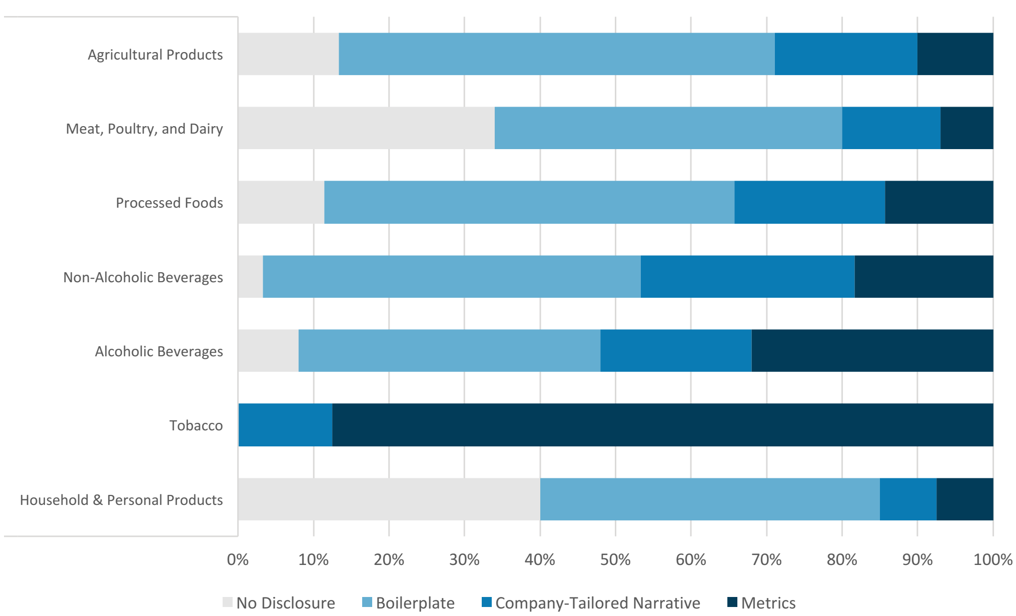
	FY 2016		FY 2015	
Disclosure Levels	82%		81%	
Disclosure Quality	Possible	Available	Possible	Available
No Disclosure	18%	-	19%	-
Boilerplate	49%	60%	52%	65%
Tailored-Narrative	18%	22%	20%	24%
Metrics	15%	18%	9%	11%

CURRENT STATE OF DISCLOSURE

- Disclosure levels: The sector shows reporting levels (82 percent) similar to those of the overall economy (83 percent). However, there are important differences at the industry-level. On the one hand, and perhaps as a result of being part of a highly regulated industry, tobacco product manufacturers provide disclosure on all the topics included in their industry standard, achieving reporting levels of 100 percent. High disclosure levels were also identified for both non-alcoholic and alcoholic beverage manufacturers (97 and 92 percent, respectively). On the other hand, companies in the "Household & Personal Products" and "Meat, Poultry & Dairy" industries show below-average levels of reporting (60 and 66 percent, respectively). The low levels of reporting by manufacturers of household and personal goods are mainly driven by scant disclosure on the regulatory and reputational risks from the environmental impacts of packaging and sourcing of controversial ingredients such as palm oil. Meanwhile, animal protein producers provide limited disclosure on animal welfare risks, societal concerns around the use of antibiotics for animal production, and certain environmental impacts, such as greenhouse gas emissions and management of energy and water.

- Disclosure quality: Overall, when disclosure is provided, the sector's use of metrics (18 percent of available disclosures) is below the economy average (29 percent of available disclosures). This is the second-lowest figure of all sectors, topping only the "Consumption II—Consumer Goods & Retail" sector. Disclosure practices using boilerplate language are also higher than the economy average (60 percent versus 50 percent of available disclosures). Industry-level results, however, show that the "Tobacco" industry was a

Figure 13. Sustainability disclosure in SEC filings for FY 2016 (Consumption I sector)



standout not only in terms of levels of disclosure but also in terms of the quality of reporting: 88 percent of available disclosures were provided in the form of metrics, by far the highest figure of any industry in the sector. The second-highest figure for quantitative reporting (35 percent of available disclosures) belongs to the "Alcoholic Beverages" industry. Again, it seems probable that regulatory forces, as well as societal pressures, are driving disclosure effectiveness in both industries. At the other end of the spectrum, the use of boilerplate language is most common for household and personal product manufacturers (75 percent of available disclosures), producers of animal protein (70 percent), and growers and distributors of agricultural products (67 percent).

YEAR-ON-YEAR COMPARISON

- Disclosure levels: Levels of reporting across the sector remained basically unchanged from last year (82 percent versus 81 percent). For the most part, industries within the sector also exhibited minor changes in disclosure levels, except for the "Household & Personal Products" industry, which increased its level of reporting from 47 to 60 percent, and the "Meat, Poultry and Dairy" industry, which decreased its reporting levels from 72 to 66 percent.

- Disclosure quality: Use of quantitative reporting increased at the sector level. While all industries except for "Household & Personal Products" showed higher levels of metrics use, the aggregate uptick was mainly driven by companies in the "Tobacco," "Alcoholic Beverages," and "Processed Foods" industries. Use of a company-tailored narrative mostly remained unchanged, so it follows that most of the increase in the use of metrics came at the expense of boilerplate reporting. However, industry-level differences remain. Despite showing the highest increase in reporting levels, most of the additional disclosure from household and personal product manufacturers was provided using boilerplate narrative; this type of disclosure increased from 68 to 75 percent of available disclosures within the industry. A slight increase in boilerplate reporting was also identified for the "Agricultural Products" industry. All other industries reduced their boilerplate disclosure levels.

TOPIC SPOTLIGHT

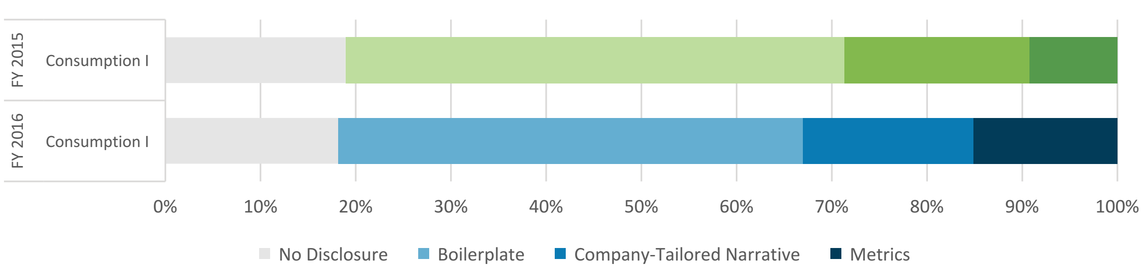
Water Management

Water-related topics are included in the Provisional Standards for six industries in the sector: "Agricultural Products," "Meat, Poultry & Dairy," "Processed Foods," "Non-Alcoholic Beverages," "Alcoholic Beverages," and "Household & Personal Products." Although agricultural water withdrawal varies depending on climate and on the importance of agriculture in the economy, the Food and Agricultural Organization of the United Nations estimates that agricultural activities such as irrigation and livestock watering and cleaning account for approximately 70 percent of global water withdrawals.[29] Note that this figure does not take into account water use during the manufacture of processed food and beverage products, so the actual figure is likely to be much higher. While many companies in the "Consumption I—Food & Beverage" sector have procedures in place to improve water-use efficiency, the expected increase in demand for food worldwide, as well as the potential physical impacts of climate change on regional water resources, present an important challenge for companies along the different links of the food value chain. Disclosure levels indicate that this risk is recognized by most companies in the aforementioned industries: more than three-quarters of companies in the analysis provided disclosure on the topic. However, when disclosure is available, more than half of these companies use boilerplate language to describe these risks. The analysis shows that quantitative disclosures are provided by only 17 percent of companies in these industries. The following excerpts illustrate the differences in disclosure practices on this topic for companies in the "Non-Alcoholic Beverage" industry:[30]

29 Food and Agriculture Organization of the United Nations, AQUASTAT Facts and Figures, http://www.fao.org/nr/water/aquastat/didyouknow/index2.stm, accessed on October 12, 2017.

30 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: CN0201-03: (1) Total water withdrawn and (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress; and, CN0201-04: Discussion of water management risks and description of management strategies and practices to mitigate those risks

Figure 14. Sustainability disclosure in SEC filings for FY 2016 vs. FY 2015 (Consumption I sector)



BOILERPLATE

"Weather, climate change legislation and the availability of water could adversely affect our business ... We may be faced with water availability risks. Water is the main ingredient in substantially all of our products. Climate change may cause water scarcity and a deterioration of water quality in areas where we maintain operations. The competition for water among domestic, agricultural and manufacturing users is increasing in the countries where we operate, and as water becomes scarcer or the quality of the water deteriorates, we may incur increased production costs or face manufacturing constraints which could negatively affect our business and financial performance. Even where water is widely available, water purification and waste treatment infrastructure limitations could increase costs or constrain our operations."

Source: Dr Pepper Snapple Group, Inc., Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"Water quality and quantity is an issue that requires our Company's sustained attention and collaboration with other companies, suppliers, governments, nongovernmental organizations and communities where we operate. Water is a main ingredient in substantially all of our products, is vital to the production of the agricultural ingredients on which our business relies and is needed in our manufacturing process. It also is critical to the prosperity of the communities we serve. Water is a limited natural resource facing unprecedented challenges from overexploitation, increased food demand, increasing pollution, poor management and the effects of climate change. Our Company regularly assesses the specific water-related risks that we and many of our bottling partners face and has implemented a formal water risk management program. Mitigation of water risk forms the basis of our water stewardship strategic framework. This strategy is executed at the local level where we operate and includes the following elements: water use efficiency and wastewater treatment in manufacturing operations; shared watershed protection efforts; engaging local communities; and addressing water resource management in our agricultural ingredient supply chain. Such efforts are conducted in collaboration and partnership with others and are intended to help address local needs. Many of these efforts help us in achieving our goal of replenishing the water that we and our bottling partners source and use in our finished products. We are also collaborating with other companies, governments, nongovernmental organizations and communities to advocate for needed water policy reforms and action to protect water availability and quality around the world. Through these integrated programs, we believe that our Company can leverage the water-related knowledge we have developed in the communities we serve—through source water availability assessments and planning, water resource management, water treatment, wastewater treatment systems and models for working with communities and partners in addressing water and sanitation needs. As demand for water continues to increase around the world, we expect continued action on our part to help with the successful long-term stewardship of this critical natural resource, both for our business and the communities we serve."

Source: The Coca-Cola Company, Form 10-K for FY ending December 31, 2016.

METRICS

"We have been developing consistent measures and consolidated reporting for key nonfinancial performance indicators … We are currently focused on developing a new set of sustainability commitments and targets which will enable us to respond to the social and environmental issues we face, meet our stakeholders' expectations and drive value for our business. This work is being undertaken in partnership with The Coca-Cola Company and will result in a refreshed sustainability strategy for the Coca-Cola system in Western Europe … We also aim to minimise water impacts in our value chain and establish a water sustainable operation. We are reducing the amount of water we use in our manufacturing operations by becoming more water efficient and investing in water-saving technology. In 2016, we used 1.61 litres of water per litre of product produced."

Source: Coca-Cola European Partners PLC, Form 20-F for FY ending December 31, 2016.

TOPIC SPOTLIGHT

Environmental and Social Impacts of Supply Chains

Topics related to the environmental and social impacts of sourcing foodstuffs for animal and/or human consumption and other applications are included in the Provisional Standards for six industries in the sector: "Agricultural Products," "Meat, Poultry & Dairy," "Processed Foods," "Non-Alcoholic Beverages," "Alcoholic Beverages," and "Household & Personal Products." Companies in the sector use a significant amount of agricultural inputs whose production can have substantial regional environmental and social impacts. These vary widely from region to region given factors such as local water-stress levels, land use restrictions, environmental regulations, animal welfare standards, and farmers' working conditions. Environmentally friendly and ethical sourcing practices and certifications have the potential to offer companies opportunities to capture growing demand from increasingly conscious consumers while securing a steady supply of key ingredients. A considerable share of companies in these industries provides disclosure on this front: levels of reporting for this topic stand at around 86 percent. However, the use of metrics to characterize the risks and opportunities presented by supply chain issues is low, at 12 percent of available disclosures. Most of the reporting on this issue is provided using boilerplate language (75 percent of available disclosures). The following excerpts illustrate the differences in disclosure practices on this topic for companies in the "Processed Food" industry:[31]

BOILERPLATE

"Any damage to our reputation could have a material adverse effect on our business, financial condition, and results of operations. Maintaining a good reputation globally is critical to selling our products … The failure to maintain high standards for product quality, safety, and integrity, including with respect to raw materials and ingredients obtained from suppliers ... may reduce demand for our products or cause production and delivery disruptions. Our reputation could also be adversely impacted by any of the following, or by adverse publicity (whether or not valid) relating thereto: the failure to maintain high ethical, social, and environmental standards for all of our operations and activities; … or our environmental impact, including use of agricultural materials, packaging, energy use, and waste management … Damage to our reputation or loss of consumer confidence in our products for any of these or other reasons could result in decreased demand for our products and could have a material adverse effect on our business, financial condition, and results of operations, as well as require additional resources to rebuild our reputation."

Source: ConAgra Brands, Form 10-K for FY ending May 29, 2016.

COMPANY-TAILORED NARRATIVE

"Strategic Imperatives … Elevating Trust through Real Food, Transparency and Sustainability … Our focus is to strengthen the trust of our consumers and customers that our products are real food made with desirable ingredients and crafted using ethical sourcing and sustainable practices. We continue to do this by changing recipes or removing ingredients from our food, such as artificial flavors and colors. Our www.whatsinmyfood.com website promotes transparency by providing consumers with a wide range of details about how many of our foods and beverages are made and the choices behind the ingredients we use in those products. This site includes all of our major products in the U.S. and Canada, with designs to expand globally over the next two fiscal years."

Source: Campbell Soup Company, Form 10-K for FY ending July 31, 2016.

METRICS

"A key strategic goal for us is to Grow our Impact, and we seek to do that in part by sourcing our products sustainably, reducing the environmental impact of our operations and packaging, and being mindful of the limited resources available around the world. We continue to leverage our global operating scale to secure sustainable raw materials and work with suppliers to drive meaningful social and environmental changes, focusing on where we can make the most impact. For example, we have taken direct accountability for building a sustainable cocoa supply with our $400 million Cocoa Life program. And we're improving sustainability in our wheat supply by working with farmers in North America and through our Harmony program in Europe. We have been recognized for our ongoing economic, environmental and social contributions and this year were listed again on the Dow Jones Sustainability Index ('DJSI')—World and North American Indices. The DJSI selects the top 10% of global companies and top 20% of North American companies based on an extensive review of financial and sustainability programs within each industry. We improved our overall score to reach the 95th percentile of our industry and achieved perfect scores in health and nutrition, raw material sourcing and water-related risks."

Source: Mondelez International, Inc., Form 10-K for FY ending December 31, 2016.

31 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: CN0103-19: Percentage of food ingredients sourced from regions with High or Extremely High Baseline Water Stress; CN0103-20: Percentage of food ingredients sourced that are certified to third-party environmental and/or social standards, by certification scheme; CN0103-21: Suppliers' social and environmental responsibility audit conformance: (1) major non-conformance rate and associated corrective action rate and (2) minor non-conformance rate and associated corrective action rate; and, CN0103-22: List of priority food ingredients and discussion of sourcing risks due to environmental and social considerations.