



July 1, 2016

Brent J. Fields
Secretary
United States Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

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Re: Concept Release on Business and Financial Disclosure Required by Regulation S-K

Dear Mr. Fields:

I write on behalf of the Sustainability Accounting Standards Board (SASB), an independent 501(c)(3) nonprofit organization that issues sustainability accounting standards for the disclosure of material sustainability information in SEC filings. SASB's provisional standards—developed following a robust due process with significant market input—are designed to be cost-effective and work within the framework of the U.S. securities laws. They help registrants effectively disclose material sustainability-related information and comply with regulatory obligations. By issuing standards that help companies provide investors with decision-useful sustainability disclosure, SASB supports the SEC's mission to protect investors; maintain fair, orderly, and efficient markets; and, facilitate capital formation.

The Commission's Regulation S-K Concept Release¹ (Concept Release) raises important questions regarding the need to update long-standing disclosure requirements to meet the needs of today's investors. Our comments focus primarily on the need for improved disclosure of sustainability-related matters.

The principal points made in this letter² are:

- **Today's reasonable investors use sustainability disclosures.** There has been an enormous increase in investor interest in sustainability-related information since the SEC last evaluated the requirements on disclosure of sustainability-related information. In a 2015 CFA Institute survey, 73 percent of institutional investors indicated that they take environmental, social and governance (ESG) issues into account in their investment analysis and decisions, to help manage investment risks.³
- **While Regulation S-K already requires disclosure of material sustainability information, the resulting disclosure is insufficient.** More than 40 percent of all 10-K disclosure on sustainability topics consists of boilerplate language. This preponderance of vague language

¹ Business and Financial Disclosure Required by Regulation S-K; Concept Release ("Concept Release"), 81 Fed. Reg. 23916 (April 22, 2016)

² Appendix A provides answers to specific questions raised in the Concept Release.

³ CFA Institute, ENVIRONMENTAL, SOCIAL AND GOVERNANCE SURVEY, p. 5 (June 2015), https://www.cfainstitute.org/Survey/esg_survey_report.pdf. Survey studied 1,325 institutional investors. *Id.* at 3.

does not help investors to understand or price risk or to evaluate performance on the topics disclosed.

- **Line-item disclosure requirements are not appropriate for sustainability issues.** Sustainability issues are not material for all companies, and when they are material, they manifest in unique ways and require industry-specific metrics. Requiring generally applicable line-item disclosures would result in additional corporate reporting burden and a large volume of information that is immaterial to investors.
- **To evaluate sustainability performance, an industry lens is needed.** Sustainability issues impact financial performance in specific ways that vary by topic and industry. As such, investors need guidance on which sustainability issues are material to which industries, and they need industry-specific metrics by which to evaluate and compare performance in the context of industry characteristics and value drivers.
- **Effective sustainability disclosure requires a market standard.** A market standard for the industry-specific disclosure of sustainability-related information would provide a market-informed process that allows for future evolution of investor needs and issuers' business models more efficiently than governmentally-mandated, universal line-item disclosure.
- **The Commission should acknowledge SASB standards as an acceptable disclosure framework for use by companies preparing their SEC filings.** SASB, through extensive research, analysis, and due process, issues standards for 79 industries, consistent with the definition of "materiality" under the federal securities laws. SASB standards enable companies to make better disclosures on material sustainability-related information to investors consistent with SEC requirements, without the need for rulemaking. SASB standards are designed to be cost-effective for issuers and decision-useful for analysts and investors, providing the ability to compare and benchmark performance, which is essential for informing investment decisions.

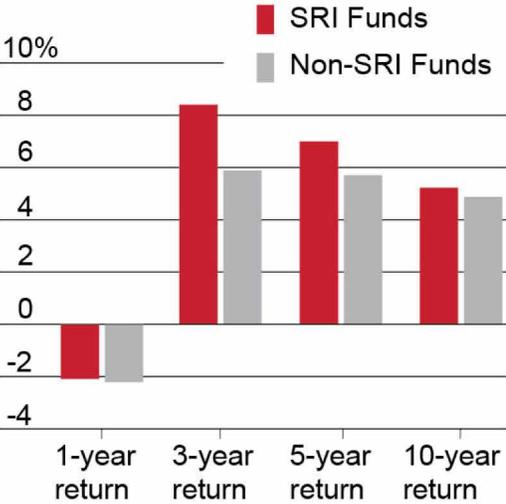
Investor Demand for Sustainability Information Has Increased Dramatically in the Past 40 Years

As the Concept Release notes, disclosure of sustainability information has not been examined in detail by the SEC since the mid-1970s, when questions involving environmental disclosures received considerable attention from the Commission and the federal courts. At that time, the SEC rejected calls for increased requirements for such disclosures because of, among other things, a lack of sufficient investor interest. The percentage of holdings of "ethical investors" was estimated at "two thirds of one percent" of all U.S. stock and bond holdings. Hence, the Commission determined, these disclosures were of interest to only "an insignificant percentage" of investors. The Concept Release, after describing this history, notes that interest in this area "may be evolving." We strongly concur.

Overwhelming evidence confirms that, in the past four decades, investors have come to recognize that sustainability⁴ information is material and to demand disclosure of the same. Shifts in the global business context underscore the need to revisit the disclosure of sustainability issues, including ESG⁵ factors, and investor interest in them. For example, climate risk was not on the radar of investors or the Commission 40, or even 20, years ago. Internationalization of manufacturing and supply chains has generated concomitant concerns about how U.S. companies are managing environmental, human rights, and governance issues abroad. The rise of the Internet and social media has increased the velocity with which reputation and license to operate can be damaged because of the poor management of sustainability factors that were not considered relevant 40 years ago.

While interest in sustainability issues was first voiced by so-called “ethical investors,” today the decisions of mainstream investment analysts on whether to buy, sell, or hold a security are increasingly influenced by ESG performance. ESG issues can and do affect the financial condition or operating performance of companies,

Figure A
Competitive Returns
 Performance of ‘sustainable’ (or SRI) mutual funds versus ones that aren’t



Source: © 2015 Morningstar, Inc.

⁴ For the purpose of the SASB standards, sustainability refers to corporate activities that maintain or enhance the ability of a company to create value over the long term. Sustainability accounting refers to the measurement, management, and reporting of such corporate activities. Sustainability accounting reflects the management of a corporation’s environmental and social impacts arising from production of goods and services, as well as the management of the environmental and social capitals necessary to create long-term value. It also includes the impacts that sustainability challenges have on innovation, business models, and corporate governance, and vice versa. Therefore, the SASB’s sustainability topics are organized under five broad sustainability dimensions: environment, social capital, human capital, business model and innovation, and leadership and governance. For more on SASB’s definition of sustainability, please refer to SASB’s Conceptual Framework, open for comment through July 6, 2016: <http://www.sasb.org/wp-content/uploads/2016/04/SASB-Conceptual-Framework-04.04.2016.pdf>.

⁵ There is no one definition of ESG. The term has been described as “a generic term used in capital markets and used by investors to evaluate corporate behaviour and to determine the future financial performance of companies. ESG factors are a subset of non-financial performance indicators which include sustainable, ethical and corporate governance issues such as managing the company’s carbon footprint and ensuring there are systems in place to ensure accountability.” (FT.com/Lexicon <http://lexicon.ft.com/Term?term=ESG>). The CFA Institute defines it as the “environmental, social and governance issues that investors are considering in the context of corporate behavior. Often these ESG issues have been considered nonfinancial or nonquantifiable in nature and have medium to long-term time frame in their effect on a Company.” (The CFA Institute, Center for Market Integrity, ENVIRONMENTAL, SOCIAL AND GOVERNANCE FACTORS AT LISTED COMPANIES, A MANUAL FOR INVESTORS, (2008) <http://www.cfapubs.org/doi/pdf/10.2469/ccb.v2008.n2.1>).

and thus are of interest to mainstream investors as economic actors,⁶ as evidenced by the following proof points:

- A 2016 study shows that nearly 75 percent of investors cite improved sustainability-related revenue performance and operational efficiency as strong reasons to invest in a company.⁷
- More than 60 percent of investors believe that solid sustainability performance reduces a company's risks; nearly the same number also strongly believe that it lowers a company's cost of capital.⁸
- 60 percent of institutional investors participating in a 2015 survey saw "non-financial" information relevant across all industries, and "two thirds (said) companies do not adequately disclose information about ESG risks."⁹
- Research from Harvard Business School found that companies that perform well on material sustainability factors, evaluated based on SASB criteria, enjoy enhanced market returns (six percent annualized alpha) over firms that perform poorly on material factors.¹⁰
- Of the investors surveyed by PwC in 2014 (representing 50 percent of U.S. institutional AUM), 80 percent reported that an assessment of performance on environmental, social

⁶ It is also noteworthy that, according to US SIF's 2014 REPORT ON US SUSTAINABLE, RESPONSIBLE AND IMPACT INVESTING TRENDS, in the U.S., socially responsible investments (SRI)—often called "ethical investing" in the 1970s—have grown 929 percent since 1995. More than one out of every \$6 under professional management in the United States is invested based on SRI strategies. (http://www.ussif.org/files/publications/sif_trends_14.f.es.pdf .) US SIF is a non-profit organization that undertakes educational, research, and programmatic activities to "rapidly shift investment practices towards sustainability, focusing on long-term investment and the generation of positive social and environmental impacts." See <http://www.ussif.org/about>.

⁷ Gregory Unruh, David Kiron, Nina Kruschwitz, Martin Reeves, Holger Rubel, and Alexander Meyer zum Felde, *Investing for a Sustainable Future*, MIT SLOAN MGMT. REV., p. 4 (May 2016), <http://sloanreview.mit.edu/projects/investing-for-a-sustainable-future/>. 579 investors responded to this survey. The investment community was broadly represented and included respondents from pension funds, endowment organizations, insurers, banks, and asset management companies. Among these groups, a significant number of respondents came from asset management companies (36%). Investors self-identified as follows: strategic (39%); institutional (24%); and retail (11%) investors. Few identified themselves as mission-oriented or socially responsible investors.

⁸ *Id.*

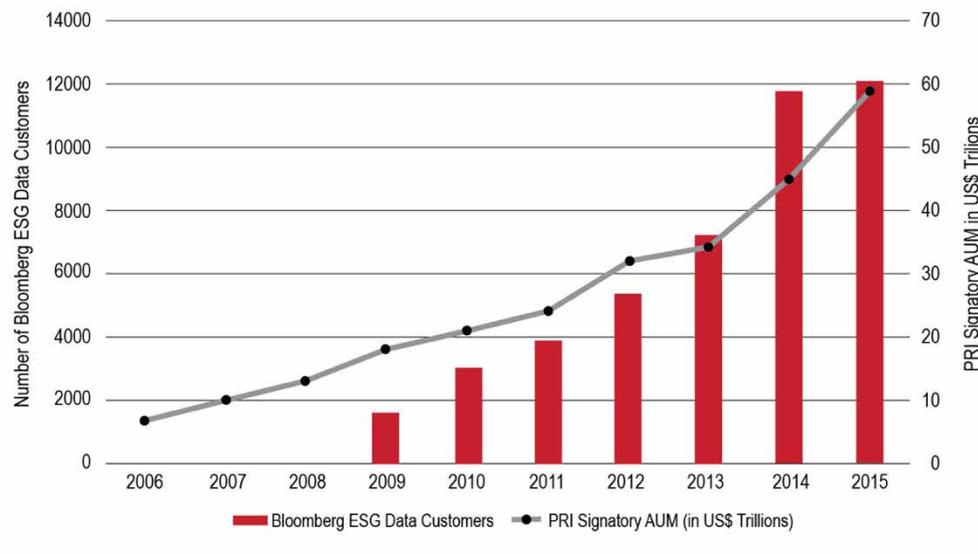
⁹ EY, TOMORROW'S INVESTMENT RULES 2.0: EMERGING RISK AND STRANDED ASSETS HAVE INVESTORS LOOKING FOR MORE FROM NONFINANCIAL REPORTING p. 7, (2015), [http://www.ey.com/Publication/vwLUAssets/EY-tomorrows-investment-rules-2/\\$FILE/EY-tomorrows-investment-rules-2.0.pdf](http://www.ey.com/Publication/vwLUAssets/EY-tomorrows-investment-rules-2/$FILE/EY-tomorrows-investment-rules-2.0.pdf).

¹⁰ Mozaffar Khan, George Serafeim and Aaron Yoon, *Corporate Sustainability: First Evidence on Materiality*, THE ACCOUNTING REVIEW (Harvard Business School, March 9, 2015), <http://hbswk.hbs.edu/item/corporate-sustainability-first-evidence-on-materiality>. This is the first significant study to differentiate between those sustainability factors that are likely to have material impacts and those that are not, using SASB's provisional standards to make this determination. Using historical data, the study tracked the performance of 2,307 unique firms over 13,397 unique firm-years across six sectors and 45 industries, and found that firms enjoyed significantly higher market returns when they addressed material sustainability factors, and still higher returns when they efficiently concentrated on material sustainability factors to the exclusion of immaterial sustainability factors. *Id.* at p. 12, 23.

and governance (ESG) issues had factored into their investment decision-making process during the 12 months preceding the survey.¹¹

- *Roughly half of the total global institutional assets—\$60 trillion—are now managed by signatories to the Principles of Responsible Investment (PRI).*¹² PRI promotes an approach to investing that incorporates ESG factors into investment decisions. PRI signatories have grown in number from 100 to 1,500 since PRI’s inception 10 years ago. (See Figure B.)

Figure B
PRI Signatory Assets Under Management
Bloomberg ESG Customer Growth: 2006-2015



¹¹ PwC, SUSTAINABILITY GOES MAINSTREAM: INSIGHTS INTO INVESTOR VIEWS, p. 2, (May 2014), <https://www.pwc.com/us/en/pwc-investor-resource-institute/publications/assets/pwc-sustainability-goes-mainstream-investor-views.pdf>. Survey respondents represented large financial institutions such as third-party investment managers, banks, pension funds, foundations, endowments, sovereign wealth funds, insurance companies, and family offices.

¹² Gunnar Friede, Timo Busch and Alexander Bassen, *ESG and Financial Performance: Aggregated Evidence from More Than 2000 Empirical Studies*, Journal of Sustainable Finance & Investment, Vol. 5, No. 4, pp. 210 (2015), <http://www.tandfonline.com/doi/full/10.1080/20430795.2015.1118917>. PRI signatories make the following commitment: "As institutional investors, we have a duty to act in the best long-term interests of our beneficiaries. In this fiduciary role, we believe that environmental, social, and corporate governance (ESG) issues can affect the performance of investment portfolios (to varying degrees across companies, sectors, regions, asset classes and through time)." "Incorporating ESG issues into investment analysis and decision-making processes" is the first of six principles to which PRI signatories commit.

For more information on PRI see its website: <https://www.unpri.org/about>.

- The number of customers using ESG data on Bloomberg terminals has *quadrupled* from 2010 to 2015.¹³ (See Figure B.)
- Setting aside prior guidance, the U.S. Department of Labor affirmed in 2015 that the Employment Retirement Income Security Act (ERISA) does not prohibit pension fund managers from considering ESG factors in making investment decisions. “Fiduciaries should appropriately consider factors that potentially influence risk and return. Environmental, social, and governance issues may have a direct relationship to the economic value of the plan’s investment.”¹⁴ Under this guidance, managers of U.S. pension funds—representing more than \$21.7 trillion in AUM¹⁵—are now able to consider ESG factors in keeping with their fiduciary duty.
- Collaborative research examining more than 2,000 empirical studies of ESG and financial performance over three decades found that 62.6 percent of studies showed a positive correlation between the inclusion of ESG factors in investment decision making and financial performance.¹⁶
- “Evidence shows that companies that have better ESG management tend to outperform in the long term, and they’re more resilient during times of economic downturn,” according to Christina Zimmermann at Wellington Management. “We do this to get better risk-adjusted returns.”¹⁷
- “Our goal is to inextricably weave ESG factors into the fabric of industry standards, making them part of the investment decision making process,” says Mamadou-Abou Sarr of Northern Trust.¹⁸
- Writing recently to the CEOs of S&P 500 and large European companies, the chairman and CEO of the world’s largest investment management corporation, BlackRock’s Laurence Fink, made clear to corporations that BlackRock recognizes the financial and operational impact of sustainability-related issues. “Over the long-term, environmental, social and governance (ESG) issues—ranging from climate change to diversity to board effectiveness—have real and quantifiable financial impacts.”¹⁹

¹³ Bloomberg, SUSTAINABLE BUSINESS AND FINANCE: CUSTOMERS USING ESG DATA (2015), <http://www.bloomberg.com/bcause/customers-using-esg-data>.

¹⁴ U.S. Department of Labor, IB 2105-1, p. 5, <https://s3.amazonaws.com/public-inspection.federalregister.gov/2015-27146.pdf>.

¹⁵ See, e.g., Willis Towers Watson, U.S. PENSION FUND ASSETS REMAIN STABLE (February 2, 2016), <https://www.willistowerswatson.com/en-US/press/2016/02/global-pension-fund-assets-crab-sideways>.

¹⁶ Gunnar Friede, Timo Busch, and Alexander Bassen, *ESG and Financial Performance: Aggregated Evidence from More Than 2000 Empirical Studies*, JOURNAL OF SUSTAINABLE FINANCE & INVESTMENT, Vol. 5, No. 4, pp. 217-18 (Dec. 2015), <http://www.tandfonline.com/doi/full/10.1080/20430795.2015.1118917>.

¹⁷ Institutional Investor, ESG BECOMING MAINSTREAM, p. 3 (November 2015), http://institutionalinvestor.com/images/416/2015-11-ESG_Report_AM.pdf.

¹⁸ 15 Mamadou-Abou Sarr, TAKING STOCK OF THE PRI ON ITS TENTH ANNIVERSARY (Institutional Investor May 9, 2016), <http://www.institutionalinvestor.com/gmtl/3552447/article/3551587/partner-content-are-target-date-funds-on-target.html#.V0OidmO8mic>.

¹⁹ Letter from BlackRock’s Larry Fink to CEOs of S&P 500 and large European companies, February 2, 2016. A copy of the letter can be found at <http://www.businessinsider.com/blackrock-ceo-larry-fink-letter-to-sp-500-ceos-2016-2>. Mr. Fink later wrote, in a letter to BlackRock shareholders, “Generating sustainable long-term returns for our clients also requires us to factor the ESG challenges companies

Thus, the Commission’s finding of 40 years ago—that an “insignificant percentage” of U.S. shareholders is interested in sustainability disclosures—quite emphatically can no longer be supported.

Frustration and Burden of Ineffective ESG Disclosures

Today’s investors are interested in having access to accurate and useful sustainability information, but that need is not matched by the availability and quality of such information. Sustainability information generally is not “investment-grade”; it is largely not material (as defined under U.S. securities laws); is not industry-specific, comparable, complete, auditable, nor reliable. A 2015 study found that 82 percent of investors said they are dissatisfied with how risks and opportunities are identified and quantified in financial terms; 79 percent of the investors polled said they are dissatisfied with the comparability of sustainability reporting between companies in the same industry.²⁰

Underlying this problem is the fact that sustainability information disclosed outside Commission filings (which is where most sustainability information is disclosed today) is generally formulated without applying the standard for materiality used under federal securities laws: “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.”²¹ Sustainability reports prepared following frameworks with more expansive definitions of materiality (for example the definition used by the Global Reporting Initiative [GRI])²² are useful in many contexts, including surfacing issues about which a broad range of stakeholders may care. But, in the context of investment decision-making, they produce information that can “bury the shareholders in an avalanche of trivial information,” an outcome that the Supreme Court sought to avoid in establishing the materiality standard in the *TSC v. Northway* decision.²³

How do investors obtain sustainability information today? There are four principal means—none of which presently works well.

SEC filings: As the Commission has noted,²⁴ certain sustainability information should be disclosed under existing SEC rules. In particular, Item 303 of Regulation S-K requires that companies describe known trends, events, and uncertainties that are reasonably likely to have material impacts on their financial condition or operating performance in the MD&A section of Form 10-K or 20-F. The MD&A requirement calls for companies “to provide investors and other users with material information that is necessary to [form] an understanding of the company’s

face today, such as climate or changing labor markets, into our investment analysis and decision-making processes.” A full copy of his letter to shareholders can be found at

[https://www.blackrock.com/cooperate/en-us/investor-reactions/larry-fink-chairmans-letter.](https://www.blackrock.com/cooperate/en-us/investor-reactions/larry-fink-chairmans-letter)”

²⁰ PwC, SUSTAINABILITY DISCLOSURES: IS YOUR COMPANY MEETING INVESTOR EXPECTATIONS, (July 2015), <http://www.pwc.com/us/en/cfodirect/publications/in-the-loop/sustainability-disclosure-guidance-sasb.html>.

²¹ *TSC Industries v. Northway, Inc.*, 426 U.S. 438 (1976).

²² See *infra*, p. 20-22, for a more detailed discussion of GRI.

²³ 426 U.S. at 448-49 (1976).

²⁴ Securities and Exchange Commission, FR-82, COMMISSION GUIDANCE REGARDING DISCLOSURE RELATED TO CLIMATE CHANGE, p. 3 (Feb. 2, 2010), <https://www.sec.gov/rules/interp/2010/33-9106.pdf>.

financial condition and operating performance, as well as its prospects for the future.”²⁵ Also, under Item 503(c) of S-K companies are required to disclose risk factors—factors that may affect a company’s business, operations, industry or financial position, or its future financial performance.²⁶

Because of these requirements, companies often include sustainability-related information in SEC filings. In fact, SASB research shows that three-quarters of SASB disclosure topics are already addressed by issuers in their SEC filings. Importantly, however, more than 40 percent of all 10-K disclosure on sustainability topics consists of boilerplate language.²⁷ This preponderance of vague language does not help investors to evaluate performance on the topics disclosed.²⁸ Fifteen percent of 10-K sustainability disclosures are metrics-based, but the utility of such disclosures is limited because the calculation and reporting methodologies used are not standardized. (See Appendix B.)

Consider the varied usefulness of these instances of water management disclosure made by two companies in the alcoholic beverages industry, one using boilerplate and one using metrics:

- “Climate change and water availability may negatively affect our business and financial results. ... Clean water is a limited resource in many parts of the world and climate change may increase water scarcity and cause a deterioration of water quality in areas where we maintain brewing operations. The competition for water among domestic, agricultural and manufacturing users is increasing in some of our brewing communities. ... The above risk, if realized, could result in a material adverse effect on our business and financial results.”—*Molson Coors, Form 10-K filed 12-Feb-15*
- “Overall this year, Diageo has delivered improved performance across all water and other environmental target areas versus the prior year, and progressed towards meeting 2015 goals. We reduced absolute water use by 9% or 2,268,000 cubic metres while water efficiency improved by 2.4% compared to the prior year. In water-stressed locations, we have reduced water wasted by 12%, an important contribution towards our target of a 50% reduction versus the company’s 2007 baseline.”—*Diageo, Form 20-F filed 12-Aug-14*

As for risk factor disclosures, the SEC adopted this requirement for periodic reports in 2005 to provide “investors with a clear and concise summary of the material risks to an investment in the

²⁵ Securities and Exchange Commission, FR-72, COMMISSION GUIDANCE REGARDING MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Dec. 19, 2003), <https://www.sec.gov/rules/interp/33-8350.htm>.

²⁶ 17 C.F.R. 229.503(c).

²⁷ See Appendix B for an overview of SASB research findings on the current state of sustainability disclosures in SEC filings. More detailed analysis has been published and is available in the form of SASB industry research briefs, available at <http://www.sasb.org/approach/our-process/industry-briefs>.

²⁸ Such disclosures are often interpreted by analysts as red flags indicating that management has identified a risk but understands it too poorly to provide more useful information; the resulting increase in valuation model risk premia leads to a higher cost of capital. See Ole-Kristian Hope, Danqi Hu, and Hai Lu, *The Benefits of Specific Risk-Factor Disclosures* (working paper, University of Toronto, Feb. 26, 2016), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2457045. The researchers found that analysts are better able to assess fundamental risk when firms’ risk-factor disclosures are more detailed and avoid vague, abstract, or “boilerplate” language.

issuer's securities."²⁹ However, for the most part, risk factor disclosures are unhelpful to investors. Risk factor disclosure is often approached largely as a "cheap form of liability insurance."³⁰ Many companies provide limited disclosure about risk mitigation efforts, in part because such descriptions are often thought by lawyers as detracting from the liability-protection aspect of the risk disclosure and because, as the Concept Release itself notes, the Commission staff "has discouraged registrants from including mitigating language in their Item 503 risk factor disclosure because of concern that mitigating language could dilute investors' perception of the magnitude of the risk."³¹

A recent comprehensive study reviewed the risk factor disclosures of 50 large companies and concluded that the disclosures "often are generic and do not provide clear, concise and insightful information."³² Further, the disclosures typically are not tailored to the specific company. Instead, they tend to represent a listing of generic risks with little to help investors distinguish between the relative importance of each risk to the company. In addition, the language is often repetitive and written with legal language and a compliance-oriented approach (instead of using plain English to help investors better understand and evaluate company-specific risks). The information, in other words, is characterized by the prevalent use of vague boilerplate language.³³ It should be noted that the "insurance" provided by such boilerplate comes at a price, in the form of higher costs of capital for companies with poor transparency.³⁴ Analysts overcompensate for risks that are disclosed with boilerplate language.

Thus, current sustainability disclosures in SEC filings do not provide investors with comparable, industry-specific data with which to evaluate and compare performance.

Stand-alone reports: 81 percent of the S&P 500 companies now produce stand-alone sustainability reports.³⁵ These are typically glossy, attractive publications, often developed in consultation with a company's marketing department or a public relations firm, that describe a company's achievements with respect to environmental, social, governance, and related matters. Research has shown that these reports are not sufficient to meet investor needs,³⁶ for two principal reasons.

²⁹ Final Rule: Securities Offering Reform, Release No. 33-8591 (July 19, 2005)

³⁰ See generally, Robert B. Robbins and Philip L. Rothenberg, *Securities Disclosure: Writing Effective Risk Factor Disclosure in Offering Documents and Exchange Act Reports*, INSIGHTS, Vol. 19, No. 5 (Pillsbury Winthrop Shaw Pittman LLP May 2005), <http://www.pillsburylaw.com/siteFiles/Publications/77EA643CE089DDA568EFF79F0A35F681.pdf>.

³¹ Concept Release, 81 Fed. Reg. at 23960

³² Investor Responsibility Research Center Institute, THE CORPORATE RISK FACTOR DISCLOSURE LANDSCAPE (January 2016), <http://irrcinstitute.org/wp-content/uploads/2016/01/FINAL-EY-Risk-Disclosure-Study.pdf>.

³³ Id.

³⁴ See, Ole-Kristian Hope, Danqi Hu, and Hai Lu, *The Benefits of Specific Risk-Factor Disclosures* (working paper, University of Toronto, Feb. 26, 2016), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2457045.

³⁵ Governance and Accountability Institute, FLASH REPORT: EIGHTY-ONE PERCENT (81%) OF THE S&P 500 INDEX COMPANIES PUBLISHED CORPORATE SUSTAINABILITY REPORTS IN 2015 (March 15, 2016), <http://www.ga-institute.com/nc/issue-master-system/news-details/article/flash-report-eighty-one-percent-81-of-the-sp-500-index-companies-published-corporate-sustainabi.html>.

³⁶ PwC, SUSTAINABILITY GOES MAINSTREAM: INSIGHTS INTO INVESTOR VIEWS, pp. 6-7, (May 2014), <https://www.pwc.com/us/en/pwc-investor-resource-institute/publications/assets/pwc-sustainability-goes-mainstream-investor-views.pdf>.

- First, stand-alone sustainability reports are not designed for use by investors. While they can be important marketing and communications tools, providing an extensive overview of sustainability topics to a broad set of stakeholders—ranging from employees and customers to vendors and community organizations—they are of limited utility for purposes of investment decision-making. These reports often describe matters as “material” but use that term far more loosely than is the case under the U.S. securities laws. Thus, the reports are typically filled with large amounts of immaterial information which is not balanced, standardized, reliable, nor comparable for investors.³⁷
- Second, a 2013 study of highly rated (GRI A and A+)³⁸ sustainability reports revealed that 90 percent of known negative events were not reported by the company.³⁹ These reports were found to “camouflage real sustainable-development problems, presenting an idealized version of company situations.”⁴⁰ This phenomenon is sometimes referred to as “greenwashing.”⁴¹

Thus, stand-alone sustainability reports do not produce investor-grade information, and they do not present a true and fair representation of performance on *material* factors, which is what investors need in order to understand and price risk.⁴²

Investor questionnaires: Investor frustration with the availability and quality of sustainability disclosures in Commission filings and/or in stand-alone sustainability reports is evidenced by the extent to which investors seek ESG data directly from companies. In a 2014 PwC investor survey, 89 percent of respondents indicated they are very likely to request ESG information directly from the company (e.g., via questionnaires).⁴³ Companies are annually subject to ESG evaluations by 150 ratings systems on approximately 10,000 performance metrics, leading to “survey fatigue.”⁴⁴ 7.5 percent of participants in a recent SASB webinar conducted on behalf of

³⁷ This presents significant risks for issuers, since under Section 10(b) and Rule 10b-5 of the Securities Exchange Act they can be held liable for material false statements made outside the 10-K.

³⁸ See discussion *infra*, p. 20.

³⁹ Olivier Boiral, *Sustainability Reports as Simulacra? A Counter-Account of A and A+ GRI Reports*, ACCOUNTING, AUDITING & ACCOUNTABILITY JOURNAL, Vol. 26, No. 7, p. 1036–71 (2013), <http://www.emeraldinsight.com/doi/pdfplus/10.1108/AAAJ-04-2012-00998>.

⁴⁰ *Id.*, at p. 1061.

⁴¹ This process of “greenwashing” is not unlike the situation that led to the creation of the Financial Accounting Standards Board (FASB) in 1973. The Wheat Committee, which was established to study the accounting standards-setting process, observed that financial statements were often used as a “strategic weapon” and as a result were often biased and unreliable. Similarly, without any governing standards and professional norms, sustainability reports are frequently self-promotional and often do not provide a balanced view of material information needed by investors to inform their decision-making.

⁴² EY, TOMORROW’S INVESTMENT RULES 2.0: EMERGING RISK AND STRANDED ASSETS HAVE INVESTORS LOOKING FOR MORE FROM NONFINANCIAL REPORTING (2015), [http://www.ey.com/Publication/vwLUAssets/EY-tomorrows-investment-rules-2/\\$FILE/EY-tomorrows-investment-rules-2.0.pdf](http://www.ey.com/Publication/vwLUAssets/EY-tomorrows-investment-rules-2/$FILE/EY-tomorrows-investment-rules-2.0.pdf). “Investors say repeatedly that they do not receive enough accurate, standardized non-financial information relevant to companies’ risk and performance assessment. Specifically, almost two-thirds of respondents say companies do not adequately disclose information about ESG risks, and nearly 40% call for companies to do so more fully in the future.”

⁴³ PwC, SUSTAINABILITY GOES MAINSTREAM: INSIGHTS INTO INVESTOR VIEWS, p. 7 (May 2014), <https://www.pwc.com/us/en/pwc-investor-resource-institute/publications/assets/pwc-sustainability-goes-mainstream-investor-views.pdf>.

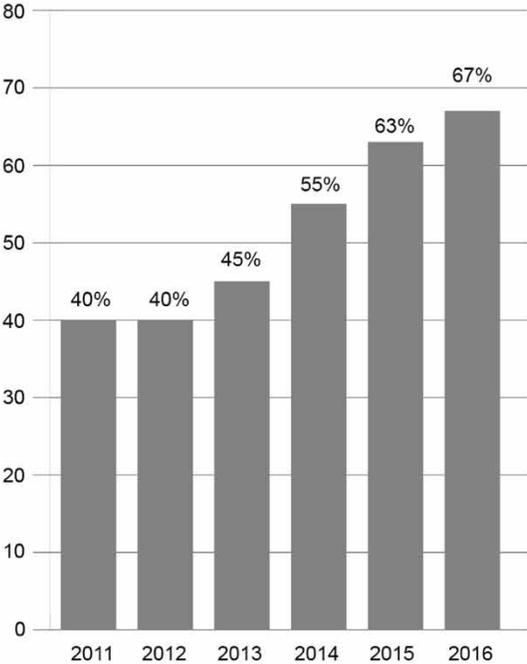
⁴⁴ Gregory Unruh, David Kiron, Nina Kruschwitz, Martin Reeves, Holger Rubel, and Alexander Meyer zum Felde, *Investing for a Sustainable Future*, MIT SLOAN MGMT. REV., p. 11 (May 2016),

the Institute of Management Accountants indicated that they receive **more than 250 such requests for ESG information per year.**⁴⁵ Information asymmetry is a by-product of investor ESG surveys. Because questionnaires follow different formats and seek information in non-standardized ways, information made available to one investor may differ from that provided to another. This practice of selective disclosure favors large investors who can conduct surveys and command responses, as well as ratings agencies and information brokers who sell this data to others. It might also run afoul of the SEC’s Regulation FD (Fair Disclosure), which prohibits companies from selectively disclosing material nonpublic information to analysts, institutional investors, and others without concurrently making widespread public disclosure.⁴⁶

Shareholder resolutions: Further evidence of investor dissatisfaction with the poor quality and availability of decision-useful sustainability disclosures is seen with the rise of sustainability-related resolutions, which accounted for 40 percent of all shareholder proposals in 2011, but today account for 67 percent of them.⁴⁷ These numbers are likely to continue to grow: 75 percent of investors who responded to the above-mentioned 2014 PwC survey indicated that they will likely sponsor or co-sponsor shareholder proposals to obtain information related to the management of sustainability issues.⁴⁸ Information is often provided to the shareholders who sponsor resolutions in exchange for dropping the proposals, but it is not disclosed publicly or to all investors, also contributing to information asymmetry and raising potential Regulation FD issues.

Not only are these various approaches to obtaining material ESG information ineffective, but questionnaires and resolutions are both burdensome and costly for registrants. For example, GE reported that in 2014 it received more than 650 questions from numerous investors, analysts, and sustainability ratings groups. Answering them required the time of more than 75 people and took several months, “with virtually no value to (GE’s) customers or shareholders

Figure C
Shareholder Proposals
 Percent of total proposals filed that are related to social and environmental issues



Sources: EY, 2011-2014, As You Sow, 2015-2016

[http://marketing.mitsmr.com/offers/SU2016/57480-MITSMR-BCG-Sustainability2016.pdf?utm_source=WhatCounts%2c+Publicaster+Edition&utm_medium=email&utm_campaign=surpt16&utm_content=Download+the+Report+\(PDF\)&cid=1](http://marketing.mitsmr.com/offers/SU2016/57480-MITSMR-BCG-Sustainability2016.pdf?utm_source=WhatCounts%2c+Publicaster+Edition&utm_medium=email&utm_campaign=surpt16&utm_content=Download+the+Report+(PDF)&cid=1)

⁴⁵ Institute of Management Accountants, INSIDE TALK WEBINAR SERIES, April 5, 2016

<http://imamedia.imanet.org/webinars/2016/04-05/index.html>, 1,296 people participated in the webinar, of whom, 1,069 were Certified Management Accountants.

⁴⁶ 17 C.F.R. 243.100 - 243.103.

⁴⁷ Heidi Welsh and Michael Passoff, *Helping Shareholders Vote Their Values*, PROXY PREVIEW, p. 5 (As You Sow Feb. 17, 2016), including proposals focused on: diversity; human rights & labor; environment, and; sustainability). <http://www.proxypreview.org/>.

⁴⁸ PwC, SUSTAINABILITY GOES MAINSTREAM: INSIGHTS INTO INVESTOR VIEWS, p. 5, (May 2014), <https://www.pwc.com/us/en/pwc-investor-resource-institute/publications/assets/pwc-sustainability-goes-mainstream-investor-views.pdf>.

and even less impact on the environment.”⁴⁹ Similarly, making and responding to shareholder proposals can be time-consuming and costly for both investors and corporations.

Effective Sustainability Disclosure Requires a Market Standard

This much is evident: sustainability issues often constitute the types of “risks,” “trends,” and “uncertainties” that issuers should address in their SEC filings. And, as discussed above, many such issues are indeed addressed therein. SASB believes, and research supports, that the absence of a market standard for these types of disclosures has made it difficult for issuers to comply effectively with, and for the Commission to enforce effectively, the disclosure requirements of Regulation S-K. Detailed standards, including SEC rules and U.S. Generally Accepted Accounting Principles (GAAP), established by the FASB, govern the disclosure of financial information. However, there have not been generally accepted standards that govern disclosure of material sustainability information, which might be characterized as “pre-financial statement” data; i.e., information that is likely to affect financial performance in due course. The need for standardization of pre-financial statement data that relates to known trends and uncertainties has been recognized by disclosure experts for many years, including by the FASB in a thorough study of the matter issued in 2001.⁵⁰

Consistent, true, and fair disclosure of performance on material sustainability topics—equal to the quality that markets have come to expect and rely on for financial information—can best be accomplished via the use of such a market standard. Standards provide a common reference point, create consistency with traditional financial data, extend the mosaic of information consistently, and make sustainability data an accepted part of the analytical and decision-making process.⁵¹

The SEC’s Concept Release examines “whether our current requirements appropriately balance the costs of disclosure with the benefits” and “whether, and if so how, we could lower the cost to registrants of providing information to investors.”⁵² Augmenting the reporting requirements for financial statements with such a market standard for the disclosure of sustainability factors would improve the effectiveness of sustainability disclosure for all involved. Two significant

⁴⁹ Ann R. Klee, *Ratings Good for the Environment?*, ENVIRONMENTAL FORUM (Environmental Law Institute May–June 2015), <https://www.eli.org/the-environmental-forum/may-june-2016>.

⁵⁰ FASB, IMPROVING BUSINESS REPORTING: INSIGHTS INTO ENHANCING VOLUNTARY DISCLOSURES, (January 2001), http://www.fasb.org/cs/ContentServer?c=Document_C&pagename=FASB%2FDocument_C%2FDocumentPage&cid=1176156460184. This report was preceded by a comprehensive study by the Jenkins Committee to determine users’ information needs to identify the types of data most useful in predicting earnings and cash flows for the purpose of valuing equity securities and assessing the prospect of repayment of debt securities or loans.

There is also much legal commentary that reaches this same conclusion. See, e.g., Larry Backer, *Transparency and Business in International Environmental Law*, available at <http://ssrn.com/abstract=1984346>. (January 2012) (“To those who advocate for greater transparency, regardless of the area or mechanism of disclosure, *communication of material information for monitoring and enforcement* is key. For companies, however, transparency frameworks continue to lack the precision of financial reporting rules and continue to run the risk that reporting might be reduced to communication commercial in purpose and rhetorical in form.”) (emphasis in original).

⁵¹ See Bruno Bertocci, BEHIND THE SCENES: HOW ASSET MANAGERS USE ESG DATA, p. 10 (UBS July 2015), <http://fsa.sasb.org/wp-content/uploads/2015/03/How-Asset-Managers-user-ESG-Data-UBS-and-SASB-July-2015.pdf>.

⁵² Concept Release, 81 Fed. Reg. at 23917.

outcomes would include reducing the cost burden related to communicating material sustainability information to investors borne by registrants and improving the utility of this information to investors.⁵³ The U.S. capital markets are long overdue for sustainability accounting standards that are created by the market—with substantial investor and issuer input—specific to particular industries and consistent with the U.S. securities laws.

SASB Standards Enable Effective Sustainability Disclosure

SASB standards are designed specifically to address the aforementioned needs of issuers and investors. Unlike other frameworks, they are designed to help registrants effectively disclose material sustainability-related information and comply with regulatory obligations, working within the framework of existing U.S. securities laws.

1. Description of SASB:

SASB was founded in 2011 as an independent 501 (c)(3) standards-setting organization in order to advance research initially conducted at the [Initiative for Responsible Investment \(IRI\) in the Kennedy School of Government at Harvard University](#).⁵⁴ The SASB board of directors, currently chaired by former New York City Mayor Michael Bloomberg, is distinguished by the level of regulatory and securities law expertise of its members. Former SEC Chair Mary Schapiro is vice chair of SASB's board. Former SEC Chair Elisse Walter, former SEC Commissioner Aulana Peters, and former FASB Chair Robert Herz have served on SASB's board for several years. Alan Beller, former Director of the SEC's Division of Corporation Finance and Senior Counselor to the SEC, joined SASB's board in June 2016.⁵⁵ SASB's staff, which now numbers 30, is made up of professionals with backgrounds in finance, accounting, sustainability, and law. The standards setting function is organized by industry and staffed by

⁵³ In a June 9, 2016 webinar on the Concept Release and sustainability hosted by Financial Executives International, with more than 300 attendees, 65.2% of participants indicated that disclosure reform most needs to address the establishment of a standard for the disclosure of sustainability-related information (rather than reducing liability risks, eliminating cost burdens, or eliminating duplicative disclosure). Also, 71.8% of participants indicated that such a market standard would: streamline their responses to investor inquiry regarding sustainability information and reduce the costs thereof; improve understanding and management of sustainability issues, and level the playing field. The full webinar is available at <http://event.on24.com/wcc/r/1188808/2E6E10B609363E6EC24E85D3DDA66C70>.

⁵⁴ In 2010, researchers at IRI began researching non-financial materiality and its application at an industry level. Steve Lydenberg and David Wood of the IRI, along with their colleague Dr. Jean Rogers, set out to develop and test a methodology for determining industry-specific material issues and their associated performance indicators. A method for identifying material factors at the industry level was honed and applied to six industries. Tailored performance indicators were developed for the material factors in each industry, derived from evaluating indicators already in use by companies and analysts to describe those particular issues. The results were published in August 2010, as [From Transparency to Performance](#).

⁵⁵ Other SASB board members are: Audrey Choi, CEO Morgan Stanley's Institute for Sustainable Investing; Jack Ehnes, CEO CalSTRS; Steven Gunders, Partner, Deloitte & Touche LLP (retired); Dan Hanson, Partner and Head of US Equities, Jarislowsky Fraser Global Investment Management; Erika Karp, CEO, Cornerstone Capital Inc.; Shawn Lytle, President Delaware Holdings, Inc.; Ken Mehlman, Member and Global Head of Public Affairs, KKR; Clara Miller, President, F.B. Heron Foundation; Catherine Odelbo, Executive Vice President, Corporate Strategy and Partnerships, Morningstar, Inc.; Kevin Parker, CEO, Sustainable Insight Capital Management; Arnie Pinkston, Executive Vice President and General Counsel, Allergan (retired); Curtis Ravenel, Global Head, Sustainable Business and Finance Group, Bloomberg; Laura Tyson, Director, Institute for Business and Social Impact at the Haas Business School, University of California (Berkeley); and, Ted White, Managing Partner, Fahr, LLC.

analysts with sector experience and quantitative analysis skills. SASB is headed by CEO and founder Dr. Jean Rogers, a former Loeb Fellow at Harvard University who holds a Ph.D. in environmental engineering and has more than 20 years' experience in sustainability and management consulting across a wide range of industries, including utilities, extractives, financials, and real estate.

These are the most significant attributes of SASB standards:

- SASB provisional standards are the result of intensive research and dialogue over the past five years, in what has been the most comprehensive analysis of the relationship between sustainability information and the disclosure requirements of federal securities laws ever performed. Over 2,800 individuals participated in SASB's Industry Working Group process through which provisional standards were developed and issued.⁵⁶ One-third of the participants were issuers; one-third of the participants were investors and analysts; and one-third were intermediaries, academics, and NGOs. Working with asset owners, industry analysts, issuers, academics, and sustainability subject-matter experts, and building on decades of work by others, SASB conducted research that enables investors to discern—for the first time—patterns of material sustainability risk and exposure across equity portfolios. SASB standards (unlike other frameworks) are designed specifically for use by issuers in SEC filings. They present an opportunity to meet the market need for cost-effective, decision-useful sustainability disclosure, facilitating compliance with Regulation S-K.⁵⁷
- A SASB standard for a given industry has several components: disclosure topics, performance metrics associated with each topic, and a technical protocol for each metric, as well as industry-specific activity metrics which can serve as normalizing factors for analysts to evaluate sustainability-related performance. (See Appendix C.) On average, SASB standards include five topics and 13 metrics per industry. 80 percent of the metrics are quantitative, and 20 percent are qualitative or descriptive. The technical protocol provides guidance on what information to collect and how to report it (e.g., boundaries and units of measurement). Each industry standard also contains disclosure guidance, e.g., disclosure of sustainability topics in SEC filings, accounting of sustainability topics, and reporting format.⁵⁸ SASB has developed provisional standards for 79 industries in 10 sectors and is now in a process of deep consultation with interested parties, who are encouraged to submit comments and other materials relating

⁵⁶ A full list of SASB Industry Working Group participants can be found here: <http://www.sasb.org/wp-content/uploads/2016/06/SASB-Industry-Working-Group-Participants-Final.pdf>. SASB Industry Working Group Due Process Reports are available for each of 10 sectors. These reports can be found under the Sectors tab on SASB's website – www.sasb.org. An example of one such report can be found here: http://www.sasb.org/wp-content/uploads/2014/02/NRRDueProcessReview_forSC.pdf. Please also refer to the SASB Blog, INDUSTRY EXPERTISE INFORMS SASB TOPICS AND METRICS, December 9, 2015. <http://www.sasb.org/industry-expertise-informs-sasb-topics-metrics/>.

⁵⁷ See comments made by SEC Commissioner Kara M. Stein, "Disclosure in the Digital Age: Time for a New Revolution," speech at the Rocky Mountain Securities Conference (SEC May, 6, 2016), <https://www.sec.gov/news/speech/speech-stein-05062016.html> - ftnref11.

⁵⁸ SASB standards can be downloaded free of charge at <http://www.sasb.org/standards/download/>; the Standards Navigator is a comprehensive resource for using and viewing SASB Standards, and for downloading industry-specific resources including Industry Briefs, Mock 10-Ks, and Technical Bulletins. This tool provides SASB's industry-specific disclosure topics, metrics, and technical protocols in an accessible and easy-to-use way. Access to the Standards Navigator is provided here: <http://www.sasb.org/standards-navigator/>.

to the standards. SASB plans to finalize the standards for all 79 industries within the next 18 months.

- SASB standards are the only sustainability standards developed in accordance with the definition of “materiality” defined by federal securities laws. SASB has identified disclosure topics that meet the materiality test set forth by the Supreme Court and used by the SEC in setting its standards – that is, information that would be important or would alter the “total mix” of information available to the reasonable investor. In addition, any topics identified as likely being material have undergone a rigorous analysis of the likelihood and magnitude of its effect on the financial condition or operating performance of a company, or on the entire industry. Direct evidence was sought to establish a link between performance on the sustainability-related factor and financial performance. Actual or potential financial impacts were characterized by their impact on revenue and growth, operating expenses, the cost of capital, and/or the value of assets or liabilities. Where possible, SASB analysts modelled the range of impact using a typical discounted cash flow analysis to understand possible impacts within a five-year time horizon. If financial materiality and the link to financial impact could not be demonstrated for a particular topic, the topic was not included in the standards. See Appendix G for a more detailed discussion of SASB’s standards setting process.
- SASB standards are cost-effective, identifying the minimum set of disclosure topics likely to constitute material information for companies in an industry.⁵⁹ On average, there are just five topics per industry included in the standards. Whenever possible, if those metrics adequately characterize performance on material factors, SASB references metrics already in use by industry, from roughly 200 entities, such as CDP, EPA, OSHA, GRI, and industry organizations such as IPIECA, EPRI and GRESB. (See Appendix E.)
- SASB standards are decision-useful because they provide investors with material, comparable, industry-specific, and reliable data that support investment decisions, including understanding and pricing risk, and inform typical investment activities such as portfolio construction, security selection, fundamental analysis, and valuation. SASB has no views on investment strategies, but believes all investors should have access to material information in a format that is easily accessible, complete, comparable, and reliable, including information on material sustainability factors. Information disclosed via the standards is also auditable.⁶⁰

⁵⁹ SASB is currently in discussions with academic institutions to perform an independent cost-benefit study of compliance with Regulation S-K using the provisional SASB standards. Benefits may include focusing issuer resources on material factors, elimination of the need to respond to hundreds of investor questionnaires, mitigation of the risk of shareholder resolutions and selective disclosure, reduced risk of omission or incomplete disclosure of material information, and streamlining disclosure of material sustainability-related information. Costs may include additional controls and independent third-party assurance of disclosures made using the SASB standards. SASB would be pleased to inform the Commission and its staff of the results of the study once completed.

⁶⁰ There appears to be market recognition that third-party assurance would be valuable for investors. For instance, a CFA Institute survey of the Institute’s members conducted in 2015 found that 69 percent of respondents thought that independent third-party verification of ESG information is important to obtain. CFA Institute, *Environmental, Social and Governance Survey* (June 2015), https://www.cfainstitute.org/Survey/esg_survey_report.pdf. In this regard, senior SASB staff persons have met on a regular basis with the PCAOB’s Board and its staff to describe the development status of the SASB standards.

- SASB has used an inclusive and transparent standards-development process.⁶¹ More than 2,800 individuals—affiliated with companies with \$11T market capital and investors representing \$23.4T assets under management—participated in industry working groups to provide input on SASB’s provisional standards. In these working groups, 82 percent of issuers and investors agreed that SASB’s proposed disclosure topics likely constitute material information. SASB will continue to involve market participants as it codifies the provisional standards into final standards and then maintains the standards.

Information disclosed via SASB standards would provide investors with investment-grade and reliable data while also, among other things:

- Enabling issuers to replace boilerplate language with complete disclosure supported by decision-useful metrics (and thus comply with SEC guidance cautioning against the use of generic language in the MD&A⁶²)
- Reducing information asymmetry and the cost burden related to questionnaires
- Enhancing competitiveness via improving the management of material ESG factors over time⁶³

We also believe that SASB standards would reduce liability risk for users of the standards. We recognize that this view may be contrary to that of some observers; in our meetings with company officials and others we have often heard of liability concerns with respect to use of these standards. But we do not think these concerns are well-founded. Existing boilerplate-type disclosures on sustainability topics are likely to expose a company to greater liability risk than would disclosures called for by the industry-specific market standard developed by SASB.⁶⁴

⁶¹ Provisional SASB standards were set in accordance with the best practices of the American National Standards Institute (ANSI). SASB is an ANSI-accredited standards-setting organization.

⁶² Securities and Exchange Commission, COMMISSION GUIDANCE REGARDING MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS, 17 CFR parts 211, 231, and 241 [Release Nos. 33-8350; 34-48960; FR-72], <https://www.sec.gov/rules/interp/33-8350.htm>. See also, Securities and Exchange Commission, INTERPRETIVE GUIDANCE REGARDING DISCLOSURE RELATED TO CLIMATE CHANGE, 17 CFR parts 211, 231, and 241 [Release Nos. 33-9106; 34-61469; FR-82], <https://www.sec.gov/rules/interp/2010/33-9106.pdf>.

⁶³ Mozaffar Khan, George Serafeim and Aaron Yoon, *Corporate Sustainability: First Evidence on Materiality*, THE ACCOUNTING REVIEW, p. 22-23 (Harvard Business School, March 9, 2015), <http://hbswk.hbs.edu/item/corporate-sustainability-first-evidence-on-materiality>. See also, GS SUSTAIN, CHANGE IS COMING: A FRAMEWORK FOR CLIMATE CHANGE—A DEFINING ISSUE OF THE 21ST CENTURY, (Goldman Sachs May 21, 2009), <http://www.goldmansachs.com/our-thinking/archive/crossing-the-rubicon-immersive/change-is-coming-a-framework-for-climate-change.pdf>. In an accompanying May 2010 interview, Anthony Ling, managing director and chief investment officer, Global Investment Research, Goldman Sachs, notes that by including analysis of performance on ESG factors in its equity analysis, Goldman Sachs is “equipping investors to be able to pick those stocks which we believe will form the basis of a core, long-term portfolio that will generate outperformance with relatively low volatility and turnover in the years to come” (emphasis added). This interview can be viewed at <http://www.goldmansachs.com/our-thinking/archive/crossing-the-rubicon-immersive>.

⁶⁴ There is case law support for this conclusion. For example, an issuer’s risk factor disclosure that it could not be certain either that “it has been, or will at all times be, in complete compliance with all environmental requirements” or that it “will not incur additional material costs or liabilities in connection with these requirements in excess of amounts it has reserved” was deemed too “vague” and “general” and mere “boilerplate”; accordingly, the court refused to dismiss a lawsuit alleging fraud where the company knew of serious environmental exposures. *Loritz v. Exide Technologies et al.*, Fed. Sec. L. Rep.

Also, SASB standards are industry-specific.⁶⁵ The advantages of this approach have been noted by the SEC itself: “The benefits associated with disclosing certain items of information may be greater in some cases than in others, such as when an item of disclosure reflects an important part of one registrant’s operations but an immaterial part of another’s. In this context, it may be important to consider various approaches to trigger disclosure where it is more likely to be important, rather than in all cases. It may also be useful to have disclosure requirements, or guidance in fulfilling these requirements, that are *specific to certain industries or other subsets of registrants*.”⁶⁶ And, even within a particular industry, an issue that is material for one company may be immaterial for another, given differences in, among other things, business models and financial condition.⁶⁷

(CCH) at 98,142 (C.D.Calif. 2014). There is also recent case law that a company can be held liable for securities fraud under Section 10(b) of the Securities Exchange Act for the omission from the MD&A of a known trend or uncertainty that is reasonably expected to have a material impact on the company’s revenues, and “generic cautionary language” is inadequate. See *Stratte-McClure v. Morgan Stanley*, 776 F.3d 94, 100–01 (2d Cir.2015) (defendant failed to disclose potential subprime mortgage losses; mere “patchwork commentary on the relevant market trends” is insufficient). Moreover, in any fraud lawsuit under Section 10(b) a plaintiff must plead a strong inference that the defendant acted with “the required state of mind”. An incomplete disclosure of material sustainability information in an SEC filing could provide a plaintiff with the grounds for satisfying that pleading requirement. Also, with respect to stand-alone sustainability reports, Section 10(b) applies to *any* public statements made by a public company, so a company can be sued for a fraudulent statement or material omission in such a report. See, e.g., *In re BP p.l.c. Securities Litigation*, 922 F. Supp. 2d 600 (S.D. Texas 2013) (purported misstatements in BP sustainability reports, among other documents and statements, were alleged as the basis for a securities fraud lawsuit in connection with the Deepwater Horizon oil spill; motion to dismiss granted in part and denied in part). It is likely that the rigorous controls, internal review process and possible third-party audit or review -- activities that typically accompany a company’s SEC filings -- would lead to more reliable sustainability disclosures where made within SEC filings than where made outside, thereby reducing the potential for inaccuracies and resultant fraud claims. In addition, the [Securities Exchange Act](#) (as amended in 1995 by the [Private Securities Litigation Reform Act](#)) insulates forward-looking statements from liability when they are “accompanied by meaningful cautionary statements identifying important factors that could cause actual results to differ materially from those in the forward-looking statement.” Courts have often held that mere “boilerplate” about risks is insufficient to satisfy these safe harbor requirements. See, e.g., *In re Harman Intern. Indus. Inc. Sec. Litig.*, 791 F. 3d (D.C. Cir. 2015). SASB-type disclosures would not be viewed as boilerplate and hence, when forward-looking in nature, would almost certainly be protected by the safe harbor. Finally, aside from private litigation, better sustainability disclosure would likely reduce exposure to investigations or lawsuits from law enforcement authorities. This includes others besides the SEC. In particular, state attorneys general have recently announced investigations into energy companies’ SEC disclosures about climate change risks. This includes investigations by the New York Attorney General into filings made by Peabody Energy, which settled with New York in November 2015, and by ExxonMobil, where the investigation is ongoing. See John C. Richter, Brandt Leibe, and William S. McClintock, “Should Energy Companies Expect More Climate Change Probes?” (Law 360, April 18, 2016) available at http://www.kslaw.com/imageserver/KSPublic/library/publication/2016articles/4-18-16_Law360.pdf. Thus, although the case law in this area is not definitive, we think the concern about expanded liability exposure is likely unfounded; use of SASB standards would likely reduce, rather than increase, liability risk.

⁶⁵ Because SASB standards are industry-specific, they help issuers understand factors that are reasonably likely to be material to an investor and make disclosures that are specific to their own situation.

⁶⁶ Concept Release, 81 Fed. Reg. at 23919 (emphasis added).

⁶⁷ In fact, an industry lens is arguably more important for sustainability purposes than for traditional financial analysis because the key environmental, social, governance and other sustainability issues differ from one industry to the next based on, for example, how companies use resources to bring goods and

An industry-specific approach to sustainability disclosure is favored by investors. Financial analysts interpret the performance of companies and their securities through an industry lens. Nearly three-quarters of respondents to an EY investor survey considered industry-specific reporting criteria and key performance indicators (KPIs) to be very or somewhat beneficial to their investment decision making, and more than 70 percent saw metrics that link “non-financial” risks to expected performance as equally beneficial.⁶⁸ See Appendix C for a more detailed discussion of the industry-specific focus of SASB standards, a closer view of what is included in a SASB standard, as well as examples of industry-specific SASB disclosure topics, value drivers impacted by these issues, and selected metrics for their disclosure.

SASB research confirms that the materiality of sustainability issues varies greatly from industry to industry. (See Appendix C⁶⁹.) For example, climate risk permeates 72 of 79 industries, or 93 percent of the U.S. equity market. But how climate risk manifests itself—via the physical effects of climate change; the ability to transition to a low-carbon, resilient economy; and sensitivity to climate-related regulatory risk—varies from industry to industry.⁷⁰ (See Appendix D.)

Because investors want and need industry-specific standards through which to analyze sustainability performance over time,⁷¹ we do not believe that requiring additional line-item sustainability-related disclosures would be a good idea. Investment analysts cover industries, not issues. Generally applicable line-item sustainability disclosure, often sought by groups with specific policy objectives,⁷² would likely result in disclosure of immaterial information, because although sustainability-related issues may manifest themselves across industries, they do so differently from one industry to another. More boilerplate, box-check exercises in disclosure would serve neither investors or registrants. They would not make disclosure more effective. Moreover, establishing a market standard for the industry-specific disclosure of sustainability-related information would provide a market-informed process that allows for future evolution of investor needs and issuers’ business models more efficiently than would governmentally-

services to market, and in doing so, how they impact society and the environment. Sustainability issues impact financial performance in specific ways that vary by topic and industry. Investors need data through which performance on sustainability issues that are likely material can be tracked to evaluate and compare performance.

⁶⁸ EY, TOMORROW’S INVESTMENT RULES 2.0: EMERGING RISK AND STRANDED ASSETS HAVE INVESTORS LOOKING FOR MORE FROM NONFINANCIAL REPORTING, p. 24 (2015), [http://www.ey.com/Publication/vwLUAssets/EY-tomorrows-investment-rules-2/\\$FILE/EY-tomorrows-investment-rules-2.0.pdf](http://www.ey.com/Publication/vwLUAssets/EY-tomorrows-investment-rules-2/$FILE/EY-tomorrows-investment-rules-2.0.pdf).

⁶⁹ Please refer to the interactive online version of the SASB Materiality Map™ for a comparison of likely material sustainability issues across different industries and sectors. www.sasb.org/materiality/sasb-materiality-map/.

⁷⁰ SASB, CLIMATE RISK: TECHNICAL BULLETIN 2016-01 (working draft Jan. 27, 2016), <http://using.sasb.org/wp-content/uploads/2016/02/SASB-Technical-Bulletin-Climate-Risk-02022016c.pdf>.

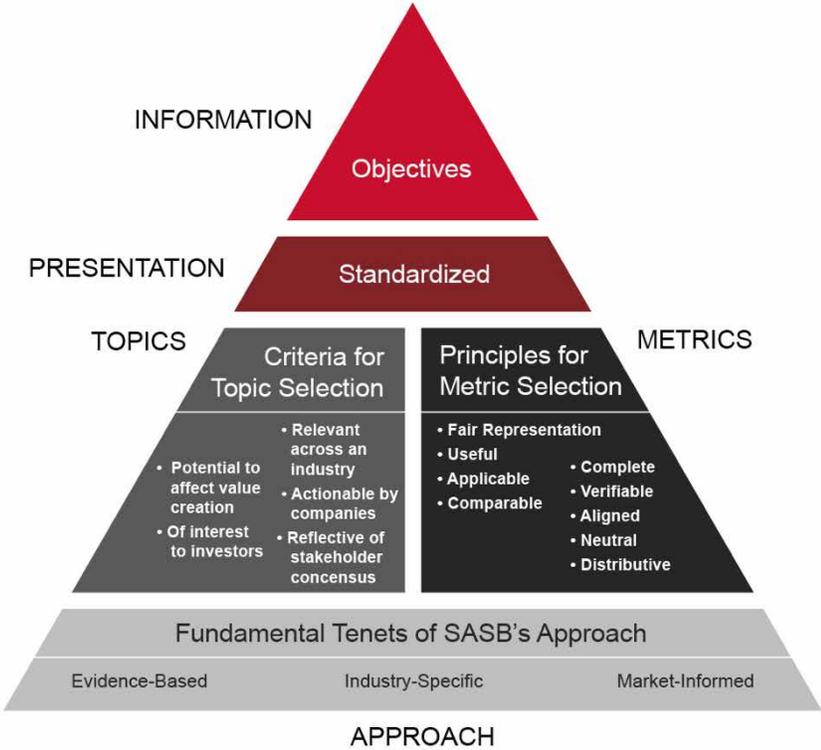
⁷¹ EY, Tomorrow’s Investment Rules 2.0: Emerging Risk and Stranded Assets Have Investors Looking for More from Nonfinancial Reporting, pp. 24-25, (2015), [http://www.ey.com/Publication/vwLUAssets/EY-tomorrows-investment-rules-2/\\$FILE/EY-tomorrows-investment-rules-2.0.pdf](http://www.ey.com/Publication/vwLUAssets/EY-tomorrows-investment-rules-2/$FILE/EY-tomorrows-investment-rules-2.0.pdf).

⁷² Concept Release, 81 Fed. Reg. at 23971, fn. 672 (citing the Business Roundtable’s concern that “some groups are seeking to use the federal securities laws to address various societal concerns” and “suggesting that Commission guidance about when disclosure might be appropriate in this area would be more appropriate than expanding the disclosure requirements”).

mandated, universally required line-item disclosure.⁷³ The same problems exist with respect to developing SEC industry guides, which would also be a time consuming and difficult task.⁷⁴

SASB’s overall approach is set forth in its Conceptual Framework,⁷⁵ a foundational document that guides SASB’s provisional standards development process and explains the concepts and definitions relevant to SASB’s work. See Figure D for a high-level overview of this process, including the fundamental tenets of SASB’s standards setting approach, the criteria for disclosure topic selection, and the principles underlying metrics selection.

Figure D



⁷³ See infra p. 34, 36, 38, and 39 for a more detailed discussion of line-item disclosures.

⁷⁴ With respect to line item disclosure, we note that the Concept Release states that in response to its request for comment on the disclosure effectiveness initiative the SEC “received many letters recommending the Commission adopt a rule requiring disclosure of political spending,” and cites, among 20 such letters, the letter submitted by SASB. Concept Release, 81 Fed. Reg. 23971 fn. 683. This is not accurate; SASB did not recommend the adoption of any such rule in its comment letter to the SEC. See SASB’s November 12, 2014 comment letter on Disclosure Effectiveness Review: <https://www.sec.gov/comments/disclosure-effectiveness/disclosureeffectiveness-22.pdf>.

⁷⁵ SASB, Conceptual Framework (Oct. 2013), <http://www.sasb.org/wp-content/uploads/2013/10/SASB-Conceptual-Framework-Final-Formatted-10-22-13.pdf>. SASB’s original Conceptual Framework was open for a 45-day period of public comment in 2013. As SASB’s provisional standard-setting work is now complete, and SASB works toward the codification and ongoing maintenance of the standards, SASB has proposed an updated Conceptual Framework.

2. Discussion of other sustainability organizations:

In the Concept Release, the SEC seeks input on existing sustainability reporting organizations.⁷⁶ SASB is very familiar with the broad landscape of sustainability and industry organizations, and has worked closely with many in development of the SASB standards. In order to keep the SASB standards cost-effective for registrants, SASB references metrics already in use by industry, from roughly 200 entities, such as CDP, EPA, OSHA, GRI, and industry organizations such as IPIECA, EPRI and GRESB. (See Appendix E.) SASB benefits greatly from the work of these organizations and is able to cite the best available metrics that appropriately characterize performance on sustainability topics that are likely to be material and therefore should be disclosed in mandatory filings.

The most well-established such organization, devoted to corporate sustainability reporting, is the Global Reporting Initiative (GRI). GRI is an international NGO founded in 1999 that pioneered the concept of stand-alone sustainability reporting to multiple stakeholders. Its accomplishments have been great, but its audience and approach to sustainability reporting are very different from SASB's.

GRI advances an expansive sustainability agenda rather than focus on investor decision-making. Its guidance is designed for companies to voluntarily report to a broad range of stakeholders – employees, interest groups, policy makers, suppliers, customers, communities, and others, in addition to investors. On the other hand, SASB, as we have explained, is focused on investors' interests and reporting of material sustainability-related information in SEC filings.

Because of its international focus and underlying sustainable development agenda, GRI uses a broad definition of materiality which can be problematic for U.S. registrants seeking to make disclosures in SEC filings consistent with U.S. securities law.⁷⁷

Another element of GRI's approach has traditionally been to reward companies for the quantity of disclosures rather than their quality. Under GRI frameworks G3 and G3.1, GRI reporters self-declared an "Application Level" for their reports (A+ through C) based largely on how many sustainability "indicators" were described in a company's sustainability report.⁷⁸ Companies

⁷⁶ Concept Release, 81 Fed. Reg. at 23973

⁷⁷ GRI, G4 ONLINE – MATERIALITY. <https://g4.globalreporting.org/how-you-should-report/reporting-principles/principles-for-defining-report-content/materiality/Pages/default.aspx>.

GRI's current definition of materiality, set forth in the G4 reporting framework, which was introduced in 2013, states: "Materiality is the threshold at which Aspects become sufficiently important that they should be reported...*In financial reporting, materiality is commonly thought of as a threshold for influencing the economic decisions of those using an organization's financial statements, investors in particular. The concept of a threshold is also important in sustainability reporting, but it is concerned with a wider range of impacts and stakeholders. Materiality for sustainability reporting is not limited only to those Aspects that have a significant financial impact on the organization.*" GRI goes on to advise companies, "(a) combination of internal and external factors should be used to determine whether an Aspect is material, including factors such as the organization's overall mission and competitive strategy, concerns expressed directly by stakeholders, broader social expectations, and the organization's influence on upstream (such as supply chain) and downstream (such as customers) entities. Assessments of materiality should also take into account the basic expectations expressed in the international standards and agreements with which the organization is expected to comply".

⁷⁸ GRI, SUSTAINABILITY REPORTING GUIDELINES, (2000-2011)

<https://www.globalreporting.org/resourcelibrary/G3-Guidelines-Incl-Technical-Protocol.pdf>. The G3 Framework was in place from 2006 to 2011. The G3.1 Framework was in place from 2011 through 2013

historically selected the topics on which they reported from a list of over 160 possible GRI topics in the G3 and G3.1 frameworks that, with the exception of some sector supplement topics, could apply to any company in any industry.⁷⁹ This is the main reason why, as discussed above, sustainability reports generally include information that is immaterial for purposes of investment decision-making. These reports tended to make the reporting company look as good as possible to stakeholders other than investors. As previously noted, a 2013 study of A and A+ GRI reports showed that 90 percent of known negative events were not included in them.⁸⁰ The G4 guidelines are designed in part to improve the quality of voluntary reporting; however, it remains to be seen whether they will be effective in that regard. BlackRock's recently published views on ESG issues notes that G4 guidelines list "over 400 indicators on corporate sustainability performance" and include "factors that go beyond investment-related issues."⁸¹ As a result, comparing the performance of companies under the GRI approach will continue to be difficult, if not impossible. GRI reports are also cumbersome and costly for companies to produce compared to using SASB's standards which include, on average, just five topics for a given company within an industry. Moreover, GRI's "one size fits all approach" to addressing literally hundreds of environmental and social issues still misses many of the financially-material issues that are important to investors because these issues are industry-specific. As a leading U.S. investor advocate stated this month, GRI "has not distilled into a framework investors can use".⁸²

Moreover, the contrast between GRI's and SASB's approach to standard setting could hardly be more stark. GRI, which is based in Amsterdam, developed the G4 framework with minimal input from U.S. investors.⁸³ SASB's focus is sustainability disclosure specific to SEC filings; it uses

when GRI released the G4 guidelines. Under GRI's "Application Level" grading system for G3 and G3.1 reports, companies self-declared Application Levels for GRI reports were "based on (their) own assessment of (their) report content against the criteria in the GRI Application." Companies that "had considered" all possible indicators and that reported on at least 20 of them, and who had reported on Level B and Level C Profile Disclosures, could declare a B Level report. Companies declaring an A Level designation for their reports also had to report on Level B and C Profile Disclosures, in addition to responding to "each core and Sector Supplement indicator with due regard to the materiality Principle by either: a) reporting on the indicator or b) explaining the reason for its omission." "An organization (could) self-declare a "plus" (+) at each level (ex., C+, B+, A+)" if their report had been externally assured. Companies could request a "GRI Application Level Check" to confirm their self-declared Application Level. GRI gave companies two reporting cycles to transition to reporting under the G4 guidelines, and stopped supporting G3 and G3.1 reporting of January 1, 2016. G4 does not employ an Application Level system. Instead, reports are designated as "core" or "comprehensive". See G4 SUSTAINABILITY REPORTING GUIDELINES, <https://www.globalreporting.org/standards/g4/Pages/default.aspx>.

⁷⁹ GRI, G3.1 CONTENT INDEX,

<https://webcache.googleusercontent.com/search?q=cache:Q4SUny5QfisJ:https://www.globalreporting.org/resourcelibrary/G3-1-Index-and-Checklist.xls+&cd=1&hl=en&ct=clnk&gl=us&client=safari>.

⁸⁰ Olivier Boiral, *Sustainability Reports as Simulacra? A Counter-Account of A and A+ GRI Reports*, ACCOUNTING, AUDITING & ACCOUNTABILITY JOURNAL, Vol. 26, No. 7, p. 1036–71 (2013), <http://www.emeraldinsight.com/doi/pdfplus/10.1108/AAAJ-04-2012-00998>.

⁸¹ BlackRock, VIEWPOINT, EXPLORING EGS: A PRACTITIONER'S PERSPECTIVE, p. 4 (June 13, 2016) <https://www.blackrock.com/corporate/en-us/literature/whitepaper/viewpoint-exploring-esg-a-practitioners-perspective-june-2016.pdf>.

⁸² Peter Cripps, *The Irresistible Force*, ENVIRONMENTAL FINANCE, (June 17, 2016), quoting CalPERS' Senior Portfolio Manager of Investments and Director of Global Governance, Anne Simpson. The article also states that Ms. Simpson "favors the methodology devised by the Sustainable Accounting Standards Board and hopes that investors and companies will rally around it."

⁸³ GRI G4 DEVELOPMENT, FIRST PUBLIC COMMENT PERIOD, 26 AUGUST – 24 NOVEMBER, 2011, FULL SURVEY REPORT, (February 10, 2012) <https://www.globalreporting.org/resourcelibrary/G4-PCP1-Full-Report.pdf>.

U.S. securities law as its starting point, with input from investors throughout the standard-setting process, guided throughout by an independent board comprising several high-ranking former SEC officials.

Another organization cited in the Concept Release is the International Reporting Council (IIRC). The IIRC is a global coalition of regulators, investors, companies, standard setters, the accounting profession and NGOs. The framework established by the IIRC is designed with investors in mind; it promotes integrated reporting (that is, the combined reporting of strategic, financial and sustainability-related information in an annual or sustainability report) but does not develop actual disclosure standards for use in such reports. The framework remains at the level of principles. Its work complements that of SASB; indeed, citing the alignment between the two organizations, SASB and the IIRC entered into a Memorandum of Understanding in 2014.⁸⁴

Our Recommendation

Because of SASB's approach, with its emphasis on due process and use of the U.S. securities laws as its framework, we believe it would be appropriate for the SEC to acknowledge the SASB framework as a credible set of standards and metrics that can be used by companies to fulfill their regulatory reporting requirements. The Commission could make this acknowledgement in an interpretive release or in some similar format.

Such recognition by the SEC of standards set by outside organizations has precedent. For example, in its adoption of a final rule under Section 404 of the Sarbanes-Oxley Act, the Commission referred to the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Framework as an acceptable approach for management's evaluation of internal control. The SEC Release stated:

After consideration of the comments, we have modified the final requirements to specify that management must base its evaluation of the effectiveness of the company's internal control over financial reporting on a suitable, recognized control framework that is established by a body or group that has followed due-process procedures, including the broad distribution of the framework for public comment. The COSO Framework satisfies

"1832 individuals and organizations provided feedback to the online survey.... *Mediating Institutions from Europe formed the largest overall number of participants with 22.5% representation, followed then by European business representatives at 12.65%.*" (Emphasis added.) Just 15% of all participants were North American (no breakdown of U.S. vs. Canada and Mexico). North American investors accounted for less than 1% of stakeholders weighing in on the G4 guidelines. Also, there is very little U.S. representation on GRI's Stakeholder Council. See GRI Stakeholder Council Members <https://www.globalreporting.org/information/about-gri/governance-bodies/stakeholder-council/Pages/Stakeholder-Council-Members.aspx>. GRI announced that it will transition the G4 Guidelines to a set of modular Sustainability Reporting Standards via its independent standards-setting body, the Global Sustainability Standards Board, GSSB, before the end of 2016. Details on the transition from the G4 Guidelines to GSSB standards for sustainability reporting can be found at: <https://www.globalreporting.org/standards/transition-to-standards/Pages/default.aspx>.

⁸⁴ SASB. *SASB and IIRC Announce Memorandum of Understanding*, <http://www.prnewswire.com/news-releases/sasb-and-iirc-announce-memorandum-of-understanding-240298181.html>.

With respect to integrated reporting, SASB considers itself an advocate of integrated reporting within the context of the U.S. securities laws. The mandatory SEC filings for which SASB standards are designed are integrated to the extent they include material strategic, financial, and sustainability-related information.

*our criteria and may be used as an evaluation framework for purposes of management's annual internal control evaluation and disclosure requirements.*⁸⁵

The SEC took a similar approach in its conflict-minerals rule adopted pursuant to Section 1502 of the Dodd-Frank Act. The rule requires that an issuer's due diligence with respect to conflict mineral determinations "follow a nationally or internationally recognized due diligence framework" so as to "enhance the quality" and "promote comparability" of conflict mineral reports. The Commission stated that guidance issued by the Organization for Economic Cooperation and Development (OECD) can be used as a framework for purposes of satisfying the rule, noting that the OECD had adopted the framework by following due process procedures, including the opportunity for input from a broad range of interested parties.⁸⁶ Similarly, as discussed above, SASB has followed, and continues to follow, due process in the setting of its standards.

And, just last month, the SEC proposed rules aimed at overhauling and modernizing disclosure requirements for companies with material mining operations. The proposed rules would align the SEC's disclosure requirements with industry standards developed by a non-governmental organization, the Committee for Mineral Reserves International Reporting Standards (CRIRSCO).⁸⁷

Summary and Conclusion

In the words of former SEC Chair and SASB board member Elisse Walter, "Disclosure is the foundation of securities laws, in the United States and many other nations, and transparency is the engine that propels our capital markets forward. But as the world continues to evolve—and its economies along with it—our disclosure requirements and reporting standards have not always kept pace."⁸⁸

⁸⁵ Securities and Exchange Commission, Final Rule: Management's Report on Internal Control Over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports [SEC Release Nos. 33-8238; 34-47986; IC-26068; File Nos. S7-40-02; S7-06-03] (June 5, 2003); <https://www.sec.gov/rules/final/33-8238.htm>.

⁸⁶ Securities and Exchange Commission, Final Rule: Conflict Minerals, [SEC Release No. 34-67716], August 22, 2012, at 205-207; <https://www.sec.gov/rules/final/2012/34-67716.pdf>. There are other precedents for the SEC's reliance on private-sector initiatives in promulgating its rules. Most prominent is the Financial Accounting Standards Board; although the history of and statutory framework for development of accounting standards is different from the one here, the important point of comparison is that the FASB is a private sector body that the SEC has long relied on to promulgate accounting standards. See generally, Policy Statement: Reaffirming the Status of the FASB as a Designated Private-Sector Standard Setter [SEC Release Nos. 33-8221; 34-47743; IC-26028; FR-70] (April 25, 2003). Another example is the SEC's adoption in 1999 of revised disclosure requirements for foreign private issuers to conform to the disclosure requirements endorsed by a non-governmental body, the International Organization of Securities Commissions (of which the SEC is a member). Securities and Exchange Commission, Final Rule: International Disclosure Standards [SEC Release Nos. 33-7745; 34-41936; International Series Release No. 1205] (September 28, 1999). Here, unlike these other examples where non-governmental rulemaking has been incorporated into the SEC's rules themselves, we are merely urging that the SEC acknowledge the appropriateness of the SASB standards for use by companies seeking to make more fulsome and complete MD&A and risk factor disclosures.

⁸⁷ Securities and Exchange Commission, Proposed Rule: Modernization of Property Disclosures for Mining Registrants, [SEC Release Nos. 33-10098; 34-78086], June 16, 2016. The SEC's proposing release describes CRIRSCO as "an international initiative to standardize definitions for mineral resources, mineral reserves, and related terms for public disclosure." *Id.* at 17.

⁸⁸ Elisse Walter, former SEC Chair and SASB board member, addressing delegates of the Sustainable Stock Exchanges Global Dialogue, Geneva, Switzerland (Oct. 14, 2014).

Sustainability disclosures in particular have not kept pace with investor needs. The SEC’s rules governing MD&A and risk factors would seem to require much sustainability disclosure; what has been missing is a comprehensive, industry-specific, and materiality-based set of standards and metrics that would facilitate such disclosure. The development of both is the sine qua non behind SASB’s establishment and work over the past five years.

As discussed above, other sustainability frameworks and guidance are designed for stakeholder engagement and voluntary reporting outside of SEC filings to a broad range of interested parties and stakeholders. The U.S. capital markets have their own unique needs, different from those of suppliers, customers, communities, interest groups, and other stakeholders. Investors demand reliable and comparable sustainability information with clear links to financial performance. We respectfully submit that SASB’s framework is the only sustainability reporting solution specifically designed to meet the needs of the U.S. capital markets.

SASB’s approach is principles-based. Our standards are voluntary, and companies themselves must decide whether to make disclosures consistent with SASB standards. SASB merely provides the tools for companies to make better disclosures consistent with SEC requirements. The standards provide suitable criteria for assurance by independent third parties and allow investors to obtain reliable, benchmarkable data on material sustainability factors. Because of SASB’s approach, with its emphasis on due process and adherence to U.S. securities law, we believe it would be appropriate for the SEC to acknowledge SASB standards, once they become final, as an acceptable framework for companies to use in their mandatory filings to comply with Regulation S-K in a cost-effective and decision-useful manner.

Thus, from the SEC’s standpoint, we believe that the reasons for adopting our recommendation are many. The SEC would be responding to a clear investor demand; it would respond to this demand without having to engage in time-consuming and potentially controversial rulemakings, as would likely be the case under a line-item approach; it would demonstrate leadership in this important area of public interest; it would decrease the level of investor confusion that results from reliance on rose-colored sustainability reports; it would reduce the disparity of information that exists between large investors (who frequently obtain access to particular sustainability-related information) and small investors (who generally lack such access); it would lessen the occurrence of possible violations of Regulation FD; and it would, most fundamentally, improve the quality of material “pre-financial statement” disclosures made to investors.

We should note, however, that we would also support additional actions by the SEC to improve the quality of sustainability disclosures. For instance, the Commission could adopt a fairly straightforward, principles-based rule such as a requirement that registrants provide a description of sustainability-related risks that exist over the next five years, along with performance data and mitigation approaches. SASB standards are a perfect complement to support issuers in making cost-effective, comparable disclosures to investors. Such a requirement would lead to better risk disclosures than exist today.

* * *

The objective of the SEC’s disclosure effectiveness review is to “improve the disclosure regime for both investors and registrants.” We are grateful for the Commission’s work to help disclosure evolve to meet the challenges and opportunities companies and their investors face in the 21st century. We are fully supportive of your efforts to modernize disclosure while protecting

investors and facilitating efficient functioning of the markets and formation of capital. We appreciate your consideration of our comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'JR', with a stylized flourish extending to the left.

Jean Rogers, Ph.D., P.E.
CEO and Founder
Sustainability Accounting Standards Board

cc: Chair Mary Jo White
Commissioner Kara M. Stein
Commissioner Michael S. Piwowar

Keith Higgins, Director, Division of Corporation Finance

Appendix A: Responses to Formal Concept Release by Section and Question

III.B.1. Principles-Based and Prescriptive Disclosure Requirements

6. Should we revise our principles-based rules to use a consistent disclosure threshold? If so, should a materiality standard be used or should a different standard, such as an “objectives-oriented” approach or any other approach, be used? If materiality should be used, should the current definition be retained? Should we consider a different definition of materiality for disclosure purposes? If so, how should it be defined?

SASB Comment: SASB believes that the current definition of “materiality” serves investors and issuers well; for purposes of disclosing sustainability information, it is an appropriate standard. Based on that standard, a great deal of sustainability-related information is immaterial, as it is not likely to affect a company’s financial condition or results of operations. Recent research from the Harvard Business School indicates that approximately 80 percent of what companies currently report related to sustainability (outside of their 10-K) is immaterial to investors.⁸⁹

A lowering of the materiality standard either by broadening the consideration for disclosure to include interested persons beyond reasonable investors, or requiring a lower threshold in which there is not likely to be a financial impact from a known trend, demand, commitment, event, or uncertainty could cause issuers to “simply bury the shareholders in an avalanche of trivial information,” a result the Supreme Court warned against in the *TSC v. Northway* decision.⁹⁰ SASB’s approach—consistent with the Supreme Court’s definition—is to focus on those topics that are reasonably likely to affect an investment decision.

Some other frameworks for sustainability disclosure have taken a broader approach to materiality. SASB believes the use of the well-accepted definition of materiality requires that issuers distinguish material information from anecdotal or “nice to know” information that is not likely to influence an investor’s decision to buy or sell a security.

All of the topics in SASB standards are considered known trends, risk, or uncertainties within the particular industry. As part of SASB’s standards setting process, we maintained a threshold of 75 percent consensus on the likely materiality of the topic between issuers and investors. If 75 percent consensus was not obtained, the topic was not taken forward for standard setting. The materiality of the topics was further substantiated by research that indicates a tangible link from performance on the sustainability-related factor to financial performance. (See Figure E. See also Appendix G.)

⁸⁹ Mozaffar Khan, George Serafeim and Aaron Yoon, *Corporate Sustainability: First Evidence on Materiality*, THE ACCOUNTING REVIEW (Harvard Business School, March 9, 2015), <http://hbswk.hbs.edu/item/corporate-sustainability-first-evidence-on-materiality>.

⁹⁰ 426 U.S. 438, 448-49 (1976).

Figure E
Materiality in Practice as a Basis for Standards Setting

SASB standards include issues with demonstrated evidence of impacts on the financial condition and operating performance of a company

	Disclosure Topics Examples	Types of Financial Drivers	Financial Impact
1	<i>Drug safety and side effects</i>	Demand for Core Products and Services	REVENUE
2	<i>License to Operate</i>	Market Share and Long-Term Growth	
3	<i>Energy-efficient chemicals production</i>	Operational Efficiency/ Cost Structure	COST
4	<i>Operational safety of gas pipelines</i>	Governance, Volatility and Risk Factors	COST OF CAPITAL
5	<i>Stranded coal assets</i>	Tangible and Intangible Assets and Liabilities	ASSETS & LIABILITIES

9. Do registrants find it difficult to apply principles-based requirements? Why? If they are uncertain about whether information is to be disclosed, do registrants err on the side of including or omitting the disclosure? If registrants include disclosure beyond what is required, does the additional information obfuscate the information that is important to investors? Does it instead provide useful information to investors?

SASB Comment: The rules governing the disclosure of known trends and uncertainties in the MD&A,⁹¹ as well as risk factors,⁹² are principles-based. The extensive use of boilerplate language to disclose sustainability-related information⁹³ indicates that registrants find it challenging to effectively disclose such information. We believe this result stems from the absence of accepted standards for such disclosure rather than from the principles-based disclosure requirements.

⁹¹ 17 C.F.R. 229.303 (Item 303(a)(3)(ii)) (2011).

⁹² 17 C.F.R. 229.503 (2011).

⁹³ See Appendix B for an overview of SASB research findings. Detailed analyses available in the form of SASB industry research briefs at <http://www.sasb.org/approach/our-process/industry-briefs>. SASB is developing a Disclosure Navigator tool for public use, also described at greater length in Appendix B.

III.B.3. Compliance with Environmental Laws (Item 101(c)(1)(xii))

50. Is disclosure about the material effects that compliance with provisions regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, may have upon a registrant's capital expenditures, earnings and competitive position important to investors? If so, should we require registrants to present this disclosure in a specific format? Would this disclosure be more appropriate in MD&A or the business section?

SASB Comment: SASB research shows that compliance with environmental laws can be material in some but not all industries. Capital expenditure (CAPEX) required for controls to ensure compliance with new regulation and/or policy related to reducing greenhouse gas emissions is one example of investor interest in this type of information. Investors are also increasingly interested in seeing shifts in planned CAPEX of companies with potentially stranded assets in industries such as coal, and oil and gas production.⁹⁴

IV.B.3. Content and Focus of MD&A (Item 303—Generally)

90. There are various sources of Commission and Division guidance on MD&A. These include Commission releases, sections of the Division's Financial Reporting Manual and staff Compliance and Disclosure Interpretations. Given the amount of Commission and staff guidance on MD&A, should we consolidate guidance in a single source? If so, which guidance remains helpful, and is there guidance that we should not include in a consolidation? Would consolidation of this guidance facilitate registrants' compliance with the item's requirements, or is the existing form of this guidance sufficient?

SASB Comment: Consolidation of guidance into a single source would likely make such guidance easier to follow. MD&A guidance from 1989, 2002, 2003, and SAB 99 could be consolidated into one document. Issuers would also benefit from additional summaries of relevant case law.

96. Should we require auditor involvement (e.g., audit, review or specified procedures) regarding the reliability of MD&A disclosure, and if so, what should the nature of the involvement be? What would be the benefits and costs to registrants and to investors?

SASB Comment: There clearly would be benefits from a third-party assurance of information contained in the MD&A, and the SASB standards are designed to be auditable. However, a requirement for such assurance would add to the costs imposed on issuers, including additional audit fees and the cost of improved internal control over MD&A data. On the other hand, it should be noted that greater accuracy and reliability of MD&A disclosures could well reduce issuers' cost of capital and liability exposure. We think it likely that registrants' investment of upgrading internal controls over this data would be offset by the reduction in costs associated with investor surveys, as well as the benefits of controlled performance-related data on material factors. SASB research conducted during the provisional standards-setting phase indicates that a high degree of

⁹⁴ See, e.g., Andrew Grant, James Leaton, Paul Spedding and Mark Fulton, *Sense and Sensitivity: Maximizing Value with a 2D Portfolio*, Carbon Tracker, (Carbon Tracker Initiative May 2016), http://www.carbontracker.org/wp-content/uploads/2016/05/Sense-Sensitivity_Full-report2_28042016.pdf. Investors would like to see CAPEX disclosures showing how companies are transitioning toward a less-carbon-intensive economy, rather than "pursu[ing] volume at all costs."

this data is collected and reported.⁹⁵ Quantifying more specifically the extent to which registrants already have and are managing this data is the focus of ongoing SASB research. Existing PCAOB standards – AT 101 and AT 701 – would govern the procedures used for audits or other procedures (for instance, a review or examination) of ESG information.

99. Does the two-step test for disclosure of a known trend, demand, commitment, event or uncertainty result in the most meaningful forward-looking disclosure? Why or why not? How do registrants determine when something is “reasonably likely” to occur?

SASB Comment: The two-step test first considers the likelihood of occurrence of the known trend or uncertainty. If management cannot determine that the known trend or uncertainty is not reasonably likely to occur, then management must evaluate the consequences on the assumption that it will come to fruition. Disclosure is then required unless management decides that a material effect on the company’s financial condition or results of operation is not reasonably likely to occur.

We believe that this test has worked well. It has been used by SASB in its standard-setting. Now that SASB’s provisional standards have been issued, they are an excellent starting point for issuers to evaluate known trends and uncertainties within an industry, as identified by peers and substantiated by evidence of financial impact either on one company or on the industry as a whole. In this regard, SASB has developed a “Mock 10-K” for six industries to demonstrate effective disclosure on sustainability-related matters in an MD&A context.⁹⁶

100. Should we revise the two-step test to apply a different standard in the first prong and if so, how? For example, should we require disclosure when a trend, event or uncertainty is more likely than not, probable, or reasonably possible to occur, rather than “reasonably likely” to occur?

SASB Comment: The 2,800 participants in SASB’s working groups weighed in (with 75 percent consensus) that the topics in SASB standards were reasonably likely to be material. “Reasonably likely” (more than a remote possibility) is an appropriate standard for sustainability-related information.⁹⁷

101. Should we eliminate the two-step test in favor of a different standard for identifying required and optional forward-looking disclosure and, if so, what test would be

⁹⁵ Preliminary SASB research shows that SASB metrics are presently recorded and tracked internally as follows: 5% associated with required public disclosure, such as SEC filings and/or regulatory disclosure such as GHG emissions; 20% are included in voluntary sustainability and/or industry trade association reports; 27% are required to be tracked but not publicly reported, (e.g., OSHA Equal Employment Opportunity Commission data); 48 are optionally, but commonly tracked internally, (e.g., energy and water use).

⁹⁶ SASB MOCK 10-K LIBRARY, <http://using.sasb.org/mock-10-k-library/>.

⁹⁷ A detailed summary of SASB Industry Working Group outcomes is available in the Industry Working Group Due Process Reports published for each of 10 sectors. These reports can be found under the Sectors tab on SASB’s website – www.sasb.org. An example of one such report can be found here: http://www.sasb.org/wp-content/uploads/2014/02/NRRDUEProcessReview_forSC.pdf. Please also refer to the SASB Blog, INDUSTRY EXPERTISE INFORMS SASB TOPICS AND METRICS, December 9, 2015. <http://www.sasb.org/industry-expertise-informs-sasb-topics-metrics/>.

appropriate? For example, should we revise Item 303 to incorporate the probability/magnitude standard from *Basic v. Levinson*? Which standard – the two-part test, *Basic*'s probability/magnitude standard, or some other standard – should we require, and why? Would any particular formulation be more or less burdensome for registrants?

SASB Comment: The two-step test is most appropriate for forward-looking sustainability-related information. The probability/magnitude standard is more difficult to apply in this context because of uncertainty as to the magnitude of the financial impact of most sustainability issues. SASB standards provide a way to fortify management's discussion with analysis that enables investors and management alike to evaluate the company's prospects and outlook with respect to material risks that the industry is facing due to sustainability-related matters.

SASB utilizes the two-step test in consideration of what is reasonably likely to be material for companies in a given industry, and agrees with SEC guidance regarding the need for "early warning" disclosures of material risks and uncertainties that, if realized, could have a material adverse effect on a particular company's liquidity, capital resources or operating results.⁹⁸ SASB favors keeping the two-step test in place and believes the current application of the standard in the first prong of the test – requiring disclosure when it is "reasonably likely" the known trend, demand, commitment, event or uncertainty will come to fruition – serves issuers and investors well. Introducing a new test at this time likely would lead to uncertainty.

102. We have stated previously that quantification of the material effects of known material trends and uncertainties can promote understanding and may be required to the extent material. Should we revise Item 303 to specifically require registrants, to the extent practicable, to quantify the material effects of known trends and uncertainties as well as the factors that contributed to those known trends and uncertainties? Why?

SASB Comment: With respect to sustainability related information, for topics that are known trends or uncertainties, issuers may be able only to characterize the nature of their performance with respect to the underlying drivers of value; for example, safety record, emissions trends, critical resource use and availability, labor relations and obligations, or vulnerability of assets to weather related events. These are pre-financial statement measures, best characterized and are best understood in the context of an industry benchmark.

IV.C.1 Risk Factors (Item 503(c))

145. How could we improve risk factor disclosure? For example, should we revise our rules to require that each risk factor be accompanied by a specific discussion of how the registrant is addressing the risk?

SASB Comment: Yes. The SEC should require registrants to accompany risk factors with a specific discussion that includes performance and how the registrant is addressing the risk. Issuers pay a risk premium when it comes to cost of capital for

⁹⁸Catherine T. Dixon, *SEC Disclosure and Corporate Governance: Financial Reporting Challenges for 2011* (Harvard Law School Forum on Corporate Governance and Financial Regulation March 15, 2011) <https://corpgov.law.harvard.edu/2011/03/15/sec-disclosure-and-corporate-governance-financial-reporting-challenges-for-2011/>.

including boiler plate risks but not addressing risk management or mitigation. In many cases, companies are saying much more about how these material risks are being managed outside of their mandatory filings, albeit in a non-comparable, and uncontrolled manner (for example, websites, questionnaires, and sustainability reports). It is therefore obvious from disclosures outside the 10-K that issuers can and should be saying more to provide a complete disclosure to investors that characterizes the nature of the risk.

146. Should we require registrants to discuss the probability of occurrence and the effect on performance for each risk factor? If so, how could we modify our disclosure requirements to best provide this information to investors? For example, should we require registrants to describe their assessment of risks?

SASB Comment: SASB standards provide a way for registrants to disclose their performance on risks in a cost-effective and comparable way that levels the playing field for all companies within an industry, reducing the risk of disclosure of “competitive” information. Registrants should describe their performance in the context of the industry, and any factors or measures that management is taking to ensure a positive trend or outcome, ultimately to reduce the risk of volatile sustainability-related events or a long-term erosion of value.

147. How could we modify our rules to require or encourage registrants to describe risks with greater specificity and context? For example, should we require registrants to disclose the specific facts and circumstances that make a given risk material to the registrant? How should we balance investors’ need for detailed disclosure with the requirement to provide risk factor disclosure that is “clear and concise”? Should we revise our rules to require registrants to present their risk factors in order of management’s perception of the magnitude of the risk or by order of importance to management? Are there other ways we could improve the organization of registrants’ risk factors disclosure? How would this help investors navigate the disclosure?

SASB Comment: SASB Mock 10-Ks⁹⁹ are designed specifically for this condition: to allow management to provide a view of how they are managing risk, along with underlying performance data that can provide context for the investor to understand and price the relative risk of a particular security vis à vis industry peers.

148. What, if anything, detracts from an investor’s ability to gain important information from a registrant’s risk factor disclosure? Do lengthy risk factor disclosures hinder an investor’s ability to understand the most significant risks?

SASB Comment: Risk factors that do not have accompanying comparable performance data are challenging for investors to use. Investors need to be able to discern performance on a risk factor in an industry context.

149. How could we revise our rules to discourage registrants from providing risk factor disclosure that is not specific to the registrant but instead describes risks that are common to an industry or to registrants in general? Alternatively, are generic risk factors important to investors?

⁹⁹ SASB MOCK 10-K LIBRARY, <http://using.sasb.org/mock-10-k-library/>.

SASB Comment: Risks facing an industry, particularly sustainability-related risks, are essential for investors to understand. These risks alter the risk/return profile of an industry. However, not all companies perform the same when it comes to risks the industry is facing, whether it is resource scarcity, the threat of regulation, or supply chain issues. Investors manage industry risks by tilting or weighting their portfolio towards companies that are managing those risks well and avoiding ones that are poor performers—or by ensuring that the security pricing adequately reflects the risk the investor is taking. SASB standards enable companies to provide quantitative performance data, along with management’s narrative, on sustainability-related risks in an industry context. This enables investors to discern corporate performance and adjust accordingly. It also enables issuers to provide their “story” substantiated by comparable data. In some cases, leading companies that manage sustainability-related risks well are not given credit because the information is not comparable and dismissed as “greenwashing”. SASB standards could be used to address industry-related risks while companies also provide a narrative to provide investors with decision-useful information.

153. Are there ways, in addition to those we have used in Item 503, our Plain English Rules and guidance on MD&A, to ensure that registrants include meaningful, rather than boilerplate, risk factor disclosure?

SASB Comment: We believe that the SASB standards can provide management’s view on known trends and uncertainties underpinned by analysis using metrics that are comparable between industry peers. As demonstrated in SASB Mock 10-Ks, a registrant that uses SASB standards to describe its material risks provides meaningful and comparable disclosure to investors.

154. Risk profiles of registrants are constantly changing and evolving. For example, registrants today face risks, such as those associated with cybersecurity, climate change, and arctic drilling, that may not have existed when the 1964 Guides and 1968 Guides were published. Is Item 503(c) effective for capturing emerging risks? If not, how should we revise Item 503(c) to make it more effective in this regard?

SASB Comment: Sustainability topics are dynamic because they can arise from social and environmental externalities. The materiality of a particular topic can vary based on investor views, social norms, changing technology, new regulation, and resource availability, for example. While the broad landscape of sustainability issues is highly dynamic (e.g., fracking chemicals, counterfeit drugs, water shortages, automobile safety recalls) within an industry, the trends are observable and the rate of change is manageable. Emerging topics are either due to, or precipitate, changes in the way companies in the industry do business. For this reason, an industry approach is the best lens for evaluating emerging sustainability-related topics. In SASB’s standards setting process, emerging topics were identified that were not yet substantiated by tangible evidence of financial impact or significant investor interest. These issues will be evaluated again in the codification phase for evidence of materiality.

IV.E.3 Industry Guides

209. Should some or all of the Industry Guides be updated? If so, which ones? Should additional Industry Guides or industry-specific rules for other industries be developed? If so, which industries would benefit from such guidance? Should industry-specific disclosure in Regulation S-K or staff guidance be limited to certain industries? If so, what criteria should be used to identify those industries?

SASB Comment: Industries have unique characteristics that give rise to material financial and non-financial information, making industry guides essential tools that enable registrants to focus on providing material information, and investors to interpret a registrant's performance in the context of their industry. Many industries have unique valuation methods and all have distinct value drivers. With respect to sustainability-related information, SASB develops standards for 79 industries. Each industry has a unique profile with respect to environmental, social, or governance factors that are reasonably likely to be material to an investor.

Examples of sustainability-related disclosure topics that are likely material and how they vary from industry to industry include:

- Exposure to counterfeit drugs (Pharmaceuticals)
- Product safety and volume of recalls (Automobiles)
- Access to water resources (Beverages)
- The carbon-intensity of the energy supply and the ability to meet renewable portfolio standards (Utilities)
- Worker safety (Mining)
- Value of reserves and impacts of fracking practices (Oil and Gas Exploration and Production)

It is important that the Commission recognize the industry-specific nature of material ESG risks, either in industry guides as they are updated, in new industry guides that may be developed, and/or by referring to the SASB industry standards as an acceptable framework for compliance with Regulation S-K.

An industry lens is essential to keep ESG disclosures cost-effective for registrants (SASB standards contain, on average, just five topics per industry) as well as decision-useful for investors. Industry benchmarking is a critical function of financial analysts, for selection and valuation of securities. Disclosure standards by industry allow for peer-to-peer comparison and benchmarking. Without industry data, disclosures on material factors by a registrant, even if detailed, are challenging for financial analysts to interpret and use.

Industry conditions change over time, but they do not change so frequently that industry standards cannot be developed and maintained. For example, 10 years ago, fracking was not on the radar. Today, we face a broad array of climate risks that are only beginning to be understood by industry. SASB's evidence-based process of developing and maintaining standards with extensive market feedback and industry input, is a suitable and rigorous process that can be responsive to changing industry conditions. SASB's dedicated sector analysts monitor industry conditions daily, and update evidence of materiality for industry issues on an ongoing basis. This evidence can be accessed in SASB's Standards Navigator tool, which is a digital, searchable form of SASB standards.

In addition to developing industry standards that allow for disclosure of material ESG risks, SASB sources activity metrics for each industry from relevant industry associations and other organizations. Where suitable activity metrics are not available, SASB develops new metrics, such that the data can be easily interpreted by industry analysts. These activity metrics are industry value drivers that can be used to normalize and compare both financial and non-financial data. Examples include:

- Number of company owned and franchise restaurants, and number of employees at each (Restaurants)
- Passenger load factor, number of departures, and age of fleet (Airlines)
- Wellhead production, by type (Oil and Gas)
- Number of assets and leasable floor area, and occupancy rates, by property subsector (Real estate)

Activity data is useful for investors of all types, and can be applied to financial as well as ESG data.

SASB recommends that the SEC incorporate SASB standards by reference into the industry guides that it is updating, so that registrants understand which sustainability-related risks they should be disclosing, and how to disclose them in a decision-useful, comparable format.

Additionally, SASB recommends that the SEC more broadly recognize SASB as a suitable framework for use by registrants to comply with Regulation S-K, in the event that the Commission does not produce industry guides for all industries.

Using the Bloomberg Industrial Classification System (BICS) as an underlying taxonomy, SASB has mapped registrants' primary, secondary, and tertiary revenue streams to SASB industry standards, so that registrants with significant activities in multiple industries can understand which industry standards may apply to them. Registrants are able to go to SASB's website and determine which industry standards apply to their company by simply typing in their ticker symbol.¹⁰⁰

215. What types of investors or audiences are most likely to value the information that registrants would not disclose but for the Industry Guides?

SASB Comment: Investors need access to material information in order to understand and price risk. The type of ESG information that is financially material is best determined by industry, because of the types of resources that industries use to bring goods and services to market, and how they impact, or are impacted by, society and the environment. This, in turn, can affect the risk profile and/or the financial condition or operating performance of some or all companies in an industry. Investors use industry information to assess the risk/return profile of their portfolio depending upon their industry allocation. They also use it in comparing and valuing securities with respect to an industry benchmark.

¹⁰⁰ SASB, SICS Look-up Tool, <http://www.sasb.org/lookup-tool/>.

IV.F.3 Disclosure of Information Relating to Public Policy and Sustainability Matters

216. Are there specific sustainability or public policy issues that are important to informed voting and investment decisions? If so, what are they? If we were to adopt specific disclosure requirements involving sustainability or public policy issues, how could our rules elicit meaningful disclosure on such issues? How could we create a disclosure framework that would be flexible enough to address such issues as they evolve over time? Alternatively, what additional Commission or staff guidance, if any, would be necessary to elicit meaningful disclosure on such issues?

SASB Comment: As changes occur in the broader economy, the information that markets need to efficiently allocate capital may also change in ways that require public companies to adjust their disclosures. In today's world, sustainability issues can impact financial performance in very specific ways that vary by topic and industry. To elicit meaningful disclosure on these issues, and to enable investors to make informed decisions about them, understanding what sustainability issues are likely to constitute material information for companies in a given industry is necessary, as are standardized metrics by which performance on these issues can be evaluated. To provide investors with this disclosure, the capital markets need sustainability accounting standards that are created by the market, specific to industry, and compatible with U.S. securities laws.

SASB was created to fill this need. SASB standards are designed to be integrated into the MD&A and other relevant sections of mandatory SEC filings, such as the Form 10-K and 20-F, so that information is reliable and that all investors have access to material, comparable information without the need to source it from questionnaires or purchase it from commercial vendors. SASB's standards development process is evidence-based and market-informed in order to ensure that the standards are cost-effective for companies and are decision-useful for investors. Please refer to Figure E (adjacent to our response to Question 6.)

Provisional SASB standards are now available (free of charge) for 79 industries on SASB's [website](#). Each standard consists of industry-specific disclosure topics, accounting metrics for each disclosure topic, and technical protocol for compiling data. The SASB [Standards Navigator](#) is a comprehensive resource for using and viewing SASB Standards and for downloading industry-specific resources, including industry briefs, mock 10-Ks, and technical bulletins. This tool provides SASB's industry-specific disclosure topics, metrics, and technical protocols in an accessible and easy-to-use way.

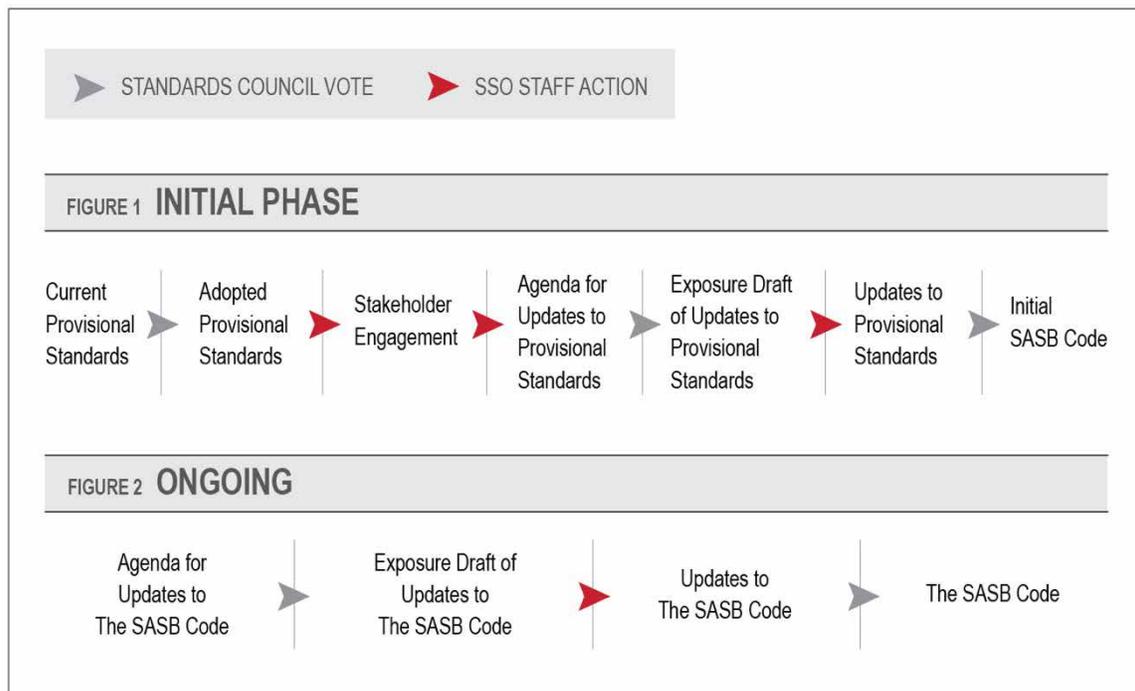
SASB standards and other products are designed to support investors in their efforts to integrate sustainability information into core activities, such as the following:

- **Fundamental analysis:** The availability of sustainability fundamentals alongside financial fundamentals provides the data needed to adjust equity and debt valuation models, as well as evaluate management quality for individual securities selection.
- **Comparison and benchmarking:** The data that results from thousands of publicly traded companies disclosing standardized, industry-specific sustainability accounting metrics will enable investors to perform peer-to-peer comparisons on critical dimensions of sustainability performance and establish industry benchmarks against which issuers can be compared.

- **Portfolio management:** The SASB’s Sustainable Industry Classification System™ (SICS™) groups industries with similar business models and sustainability impacts. The SASB standards identify sustainability topics that are reasonably likely to constitute material information for companies within a specific industry. Together, SICS™ and the industry-specific disclosure topics will help investors identify and manage under- or overexposure to certain types of sustainability risks and opportunities.
- **Active engagement:** Investors and companies can use the SASB standards—and the information they yield—to guide conversations, resulting in more focused, more productive engagements on material sustainability factors.

SASB’s proposed Rules of Procedure¹⁰¹ cover the processes for reviewing, modifying, and adopting SASB’s Provisional Standards as the initial Sustainability Accounting Code (hereafter “the SASB Code” or “the Code”), and the processes for ongoing review and maintenance of SASB standards through updates to the Code outline the means by which SASB will revise SASB standards to ensure that they address issues as they evolve over time. An overview of this process is shown in Figure F.

Figure F
SASB Standards-setting Process for Codification and Updates



¹⁰¹ SASB, Proposed Rules of Procedure: Exposure Draft, <http://www.sasb.org/wp-content/uploads/2016/01/SASB-Rules-of-Procedure-04.04.2016.pdf>. The rules of procedure are open for public comment through July 6, 2016, at <http://www.sasb.org/comment>.

217. Would line-item requirements for disclosure about sustainability or public policy issues cause registrants to disclose information that is not material to investors? Would these disclosures obscure information that is important to an understanding of a registrant's business and financial condition? Why or why not?

SASB Comment: Line-item requirements are generally not appropriate for sustainability issues because sustainability issues are likely not material for all companies; when they are material, they manifest in unique ways and thus require industry-specific metrics. Requiring these line items to be disclosed would result in a corporate disclosure burden and a large volume of information that is immaterial to investors. Additionally, how is the SEC to select issues for which it would seek to promulgate line-item disclosure requirements? Is child labor more important than climate risk? Is product safety more important than human trafficking? There are hundreds of potential social and environmental issues and judgment regarding their importance to investors is treacherous without a reliable basis for conclusion. Securities law already provides us with the answer: if it is likely to affect the financial condition or operating performance of a company then disclosure to investors is compelled. The patterns of materiality for sustainability topics are industry-specific. Therefore, SASB recommends that instead of identifying specific mandatory line items for disclosure, the SEC point to existing disclosure requirements (such as MD&A) and standards (such as SASB standards) that map the likely materiality of sustainability topics by industry and identify industry-specific accounting metrics. This approach ensures that companies disclose topics only when they are material and that investors receive information that is material and comparable.

Through its industry focus, SASB systematically assesses the relevance of each sustainability topic and the potential for material impacts on companies in 79 industries. This ensures that topics recommended for disclosure are included in the standards on the basis of evidence amassed in an industry context as well as input from a balanced group of industry experts. From one industry to the next, SASB may recommend different approaches to the disclosure of information related to these topics. This is because general sustainability topics often have unique impacts on different business models, and analysts may need industry-specific performance metrics to assess risk and/or future outlook.

A private sector standard affords more responsiveness to changing conditions over time than line item mandates that are promulgated by rulemaking.

218. Some registrants already provide information about ESG matters in sustainability or corporate social responsibility reports or on their websites. Corporate sustainability reports may also be available in databases aggregating such reports. Why do some registrants choose to provide sustainability information outside of their Commission filings? Is the information provided on company websites sufficient to address investor needs? What are the advantages and disadvantages of registrants providing such disclosure on their websites? How important to investors is integrated reporting, as opposed to separate financial and sustainability reporting? If we permitted registrants to use information on their websites to satisfy any ESG disclosure requirement, how would this affect the comparability and consistency of the disclosure?

SASB Comment: Corporations have many important stakeholders and a variety of channels through which they may communicate sustainability information, including websites, sustainability reports, and corporate social responsibility reports. While these

reports serve a broad range of stakeholder needs, they employ different processes and controls from those used in mandated SEC filings. Stand-alone sustainability reports are problematic to investors, as the sole source for sustainability-related information, for the following reasons:

- **Large amounts of immaterial information:** These reports lack focus on the sustainability issues that are of most interest to investors, namely those most likely to have material impacts on a company's financial condition or operating performance. As a result, companies also field requests for sustainability information in the form of surveys and questionnaires from investors and ratings agencies, creating a significant burden on the issuer with limited benefit to its shareholders. This selective disclosure is also problematic in view of Regulation FD.
 - **Inconsistent definition of "materiality":** Many companies are using different definitions of "materiality" in their sustainability reports and SEC filings. This is common practice for companies that follow Global Reporting Initiative (GRI) guidance, which recommends prioritizing material issues on the basis of stakeholder interest (as opposed to following the Supreme Court definition of "materiality"). A company's use of a definition of "materiality" that deviates from the securities law definition creates confusion and potential liability risks.
 - **Unreliable data:** Information included in SEC filings is likely to be prepared with greater care and more internal control than non-SEC information. Information in corporate sustainability reports reports is often not investment grade.
 - **Biased account:** Standalone sustainability reports are often prepared by corporate communications departments or public relations firms. They tend to be positively biased and do not provide investors with a true and fair representation of performance on material risks. A recent study published in *Accounting, Auditing and Accountability Journal*¹⁰² indicated that 90 percent of known negative corporate events were not reported in A and A+ rated sustainability reports. This practice of producing a glowing sustainability report is known as "greenwashing". An historical analogy is relevant here. The Wheat Committee report that precipitated the creation of the FASB in 1972 noted that financial statements were often used as a "strategic weapon" and therefore were positively biased and unreliable. Similarly, without standards and professional norms and codes of conduct, sustainability reports are frequently strategic communications for issuers. The public relations firms that are contracted to produce them are hired explicitly to provide a positive view of performance because companies want to present a positive image to various stakeholders, such as employees and prospective employees. This is a very different objective than providing investors with a balanced view of material information with which to inform investment decisions.
- Lack of standardization:** Because sustainability reports vary widely between companies in terms of the topics and metrics used, investors are not able to compare and benchmark the performance of companies within

¹⁰² Olivier Boiral, *Sustainability Reports as Simulacra? A Counter-Account of A and A+ GRI Reports*, *ACCOUNTING, AUDITING & ACCOUNTABILITY JOURNAL*, Vol. 26, No. 7, p. 1036–71 (2013), <http://www.emeraldinsight.com/doi/pdfplus/10.1108/AAAJ-04-2012-00998>.

an industry. A 2013 report by GRI and RobecoSAM highlights the extent of the lack of comparability. 94 reports from Banks & Diverse Financials industry, 38 percent of which were graded A or A+ by GRI, were analyzed for disclosure topics. 896 distinct topics were identified as “material.” 634 of the topics were identified as GRI topics, while 236 were identified as “other” material topics.¹⁰³ A similar situation was found in the Technology and Hardware industry.

For these reasons, sustainability reports and websites do not meet the needs of investors.

219. In an effort to coordinate ESG disclosures, several organizations have published or are working on sustainability reporting frameworks. Currently, some registrants use these frameworks and provide voluntary ESG disclosures. If we propose line-item disclosure requirements on sustainability or public policy issues, which, if any, of these frameworks should we consider in developing any additional disclosure requirements?

SASB Comment: SASB is very familiar with the broad landscape of sustainability and industry organizations, and has worked closely with many in development of the SASB standards.

Establishing materiality, however, is a fact-specific determination and therefore should be left to the issuer, which knows the facts best. Most existing sustainability reporting frameworks are designed to meet the needs of diverse stakeholders, including suppliers, customers, current and prospective employees, communities, policy makers, and special interest groups. This fact, coupled with their use of proprietary and expansive definitions of “materiality,” results in the disclosure of a great deal of immaterial information.

The capital markets have their own needs, unique from those of suppliers, customers, communities, employees, policy makers, interest groups, and other stakeholders whose interests are the focus of sustainability reports. Investors demand reliable and comparable sustainability information with clear links to financial performance. Complementing the work of the SEC, the Financial Accounting Standards Board, and other organizations and initiatives, SASB aims to improve disclosure effectiveness, with a premium placed on material, decision-useful information for investors. Therefore, the standards address sustainability topics that are reasonably likely to affect the financial condition or operating performance of a company or an entire industry and provide companies with a way to better satisfy the requirements of Regulation S-K. SASB standards are the only ones designed to meet the need of the capital markets for the following reasons:

- **Consistent with U.S. securities laws:** SASB standards are developed using the definition of “materiality” applied under U.S. federal securities laws. That definition, set forth by the U.S. Supreme Court in *TSC Industries v. Northway*, 426 U.S. 438 (1976), is that a fact is material if “there is a substantial likelihood” that a “reasonable investor” would view

¹⁰³ RobecoSAM and the Global Reporting Initiative, *Defining Materiality: What Matters to Reporters and Investors – Do investors and reporters agree on what’s material in the Technology Hardware & Equipment and Banks & Diverse Financials sectors?*, 2015 p. 10.

its omission or misstatement as “having significantly altered the total mix of information.” SASB identifies sustainability topics that are reasonably likely to be material for a specific industry and then develops corresponding metrics.

- **Decision-useful for investors:** SASB standards are designed to be integrated into the MD&A and other relevant sections of mandatory SEC filings, such as the Form 10-K and 20-F, so that information is reliable and all investors have access to material, comparable information without the need to source it from questionnaires or purchase it from commercial vendors.
- **Cost-effective for companies:** SASB standards identify the minimum set of sustainability factors that are likely to be material for companies in an industry. On average, each standard has five disclosure topics and 13 accounting metrics.
- **Industry-specific:** Only SASB produces standards that identify sustainability topics and metrics at the industry level. Provisional standards are available for 79 industries.
- **Created by the markets:** More than 2,800 individuals—affiliated with companies with \$11T market capital and investors representing \$23.4T assets under management—participated in industry working groups to provide input on SASB’s provisional standards. In these working groups, 82 percent of issuers and investors agreed that SASB’s proposed disclosure topics are likely to constitute material information. SASB will continue to involve market participants as it codifies and maintains the standards.

SASB recognizes that sustainability reporting is a valuable tool for communicating on sustainability achievements to a broad group of stakeholders. These reports also help flag emerging issues that may become of interest to investors over time. SASB references metrics already in use by industry, from roughly 200 entities, such as GRI, CDP, EPA, OSHA and industry organizations such as IPIECA, EPRI and GRESB. (See Appendix E.) SASB greatly appreciates the efforts of these and other organizations to determine appropriate sustainability-related metrics for topics that are likely to be material. The technical protocol for each metric in each SASB standard cites the source reference from other organizations. Incorporating other metrics by reference, where appropriate, allows SASB to rely on the expertise of industry associations and other organizations in determining the best metric to use to capture performance on a given issue and helps keep the use of SASB standards cost-effective for registrants.

SASB is developing a more extensive document showing links between SASB standards and information collected under the guidance of other reporting frameworks and industry associations.

220. Are there sustainability or public policy issues for which line-item disclosure requirements would be consistent with the Commission’s rulemaking authority and our mission to protect investors, maintain fair, orderly and efficient markets and facilitate capital formation, as described in Section III.A.1 of this release? If so, how could we address the evolving nature of such issues and keep our disclosure requirements current?

SASB Comment: A market standard for the industry-specific disclosure of sustainability-related information would provide a market-informed process that allows for future evolution of investor needs and issuers' business models more efficiently than governmentally-mandated, universal line-item disclosure.

SASB suggests that the Commission **acknowledge SASB's standards as an acceptable and appropriate disclosure framework for use** by companies in their SEC filings **to comply with Regulation S-K** in a cost-effective and decision-useful manner.

As noted in the response to question 216, SASB's [Rules of Procedure](#) include a process to codify and maintain the standards over time, with industry feedback, to ensure the standards address the changing nature of sustainability issues.

221. What, if any, challenges would registrants face in preparing and providing this information? What would be the additional costs of complying with sustainability or public policy line-item disclosure requirements, including the administrative and compliance costs of preparing and disseminating disclosures, beyond the costs associated with current levels of disclosure? Please quantify costs and expected changes in costs where possible.

SASB Comment: SASB's research shows that information regarding 75 percent of SASB disclosure topics is already being disclosed in the Form 10-K, but rarely in a decision-useful way. More than 40 percent of all disclosures on sustainability topics contain boilerplate language: broad, nonspecific wording that does not describe the realities of the registrant's particular operating context. Meanwhile, only about 15 percent of issuers disclose sustainability information using metrics.

To move from boilerplate disclosure to metrics, companies will need to strengthen their internal controls and procedures, as well as consider the need for independent assurance. However, improved disclosure on material sustainability factors will have benefits for companies. First, they will avoid the cost and burden of shareholder resolutions and questionnaires. Second, research shows that by focusing on the limited set of sustainability-related risks and opportunities identified by the SASB standards—those reasonably likely to have material impacts—companies can achieve superior results, including return on sales, sales growth, return on assets, and return on equity, in addition to improved risk-adjusted shareholder returns.¹⁰⁴

SASB standards are designed to provide a cost-effective way for companies to disclose material, decision-useful sustainability information to investors. SASB achieves this objective in two key ways:

- Because they focus on only those sustainability issues that are reasonably likely to have material impacts, SASB standards identify the minimum set of topics for consideration in each industry, the majority of which are already addressed in SEC filings by many public companies in some fashion.

¹⁰⁴ Mozaffar Khan, George Serafeim and Aaron Yoon, *Corporate Sustainability: First Evidence on Materiality*, THE ACCOUNTING REVIEW, P. 26 (Harvard Business School, March 9, 2015), <http://hbswk.hbs.edu/item/corporate-sustainability-first-evidence-on-materiality>.

- A significant percentage of the metrics in SASB standards are aligned with initiatives already in use.¹⁰⁵ As part of its standards-development process, SASB identifies and documents existing metrics and practices used to account for performance on each disclosure topic. When possible, SASB harmonizes its standards with existing metrics, definitions, frameworks, and management disclosure formats, thereby minimizing the corporate reporting burden. SASB is in the process of identifying an academic institution to conduct an analysis of the costs and benefits associated with the use of SASB standards.

222. If we propose line-item disclosure requirements that require disclosure about sustainability or public policy issues, should we scale the disclosure requirements for SRCs or some other category of registrant? Similarly, should we exempt SRCs or some other category of issuer from any such requirements?

SASB Comment: It is not necessary to scale disclosure requirements for SRCs. Every public company, regardless of size, is required to file a Form 10-K or 20-F and should thus include a discussion of material sustainability-related information.

SASB standards provide a minimum set of issues likely to constitute material information on an industry-by-industry basis, making it easier for SRCs to comply with existing requirements to disclose material information.

223. In 2010, the Commission published an interpretive release to assist registrants in applying existing disclosure requirements to climate change matters. As part of the Disclosure Effectiveness Initiative, we received a number of comment letters suggesting that current climate change–related disclosures are insufficient. Are existing disclosure requirements adequate to elicit the information that would permit investors to evaluate material climate change risk? Why or why not? If not, what additional disclosure requirements or guidance would be appropriate to elicit that information?

SASB Comment: More work is needed to evaluate the systemic nature of climate risk and data needed to understand its financial impact on global capital markets. The Financial Stability Board's (FSB)¹⁰⁶ Task Force on Climate Related Disclosure (TCFD)¹⁰⁷ is undertaking this work.

In support of this work, SASB has meticulously mapped the industry exposure to climate-related financial risk and presented appropriate metrics for its disclosure in SASB's Technical Bulletin on Climate Risk.¹⁰⁸ Based on this research, climate change is

¹⁰⁵ SASB, Op Cit, p. 20.

¹⁰⁶ The Financial Stability Board (FSB) is an international body that monitors and makes recommendations about the global financial system, FSB members include the SEC, the Board of Governors of the Federal Reserve System, and the U.S. Department of Treasury, in addition to 23 international institutions and the EU.

¹⁰⁷ Task Force on Climate Related Disclosure (TCFD) was launched in December 2015 by the FSB at the request of the G20. The TCFD is aimed at helping companies better understand what financial markets need from disclosure in order to measure and manage climate risk, and is mandated to make recommendations for improving voluntary financial disclosure of those risks. More on the TCFD can be found at: <https://www.fsb-tcfd.org>.

¹⁰⁸ SASB, CLIMATE RISK: TECHNICAL BULLETIN 2016-01 (working draft Jan. 27, 2016), <http://using.sasb.org/wp-content/uploads/2016/02/SASB-Technical-Bulletin-Climate-Risk-02022016c.pdf>.

likely to have material financial impacts on companies in 72 out of 79 industries. However, climate risk manifests differently in each industry, and thus each industry requires unique performance metrics. For example, investors in real estate are interested in the vulnerability of assets and the quality of building stock. In health care, event preparedness and business continuity risk is important, as are changing disease migration patterns. In oil and gas, the carbon intensity of reserves and current emissions are important to assess fundamental and relative risk.

SASB's Technical Bulletin on Climate Risk maps the patterns of climate risk exposure that are embedded within a typical diversified investment portfolio. The Bulletin enables investors to understand and account for climate risk by outlining the financial impacts, as well as the appropriate industry-specific disclosures, for the following types of climate-impact: (See Appendix D.)

- **Physical effects:** Encompass the range of current and projected acute (punctuated) and progressive impacts that climate change will have on the physical environment, leading to risks and opportunities for business entities.
- **Transition to a low-carbon, resilient economy:** Includes the market-based responses to the transition to a low-carbon, resilient economy. These comprise the mitigation and adaptation responses of business entities, customers, and suppliers, which may create a range of risks and opportunities.
- **Climate regulation:** Encompasses the spectrum of policies, rules, non-binding agreements, and other regulatory mechanisms that exist or are likely to come to bear in response to climate change.

While it may be tempting to consider disclosure of greenhouse gas (GHG) emissions data as a line-item requirement to address climate risk, GHG emissions are a great example of something that can be *measured* across the board but may not be *material* across the board. GHG emissions are only material for those carbon-intensive industries that may be regulated and/or need to transition to lower carbon business models. A recent review of 2014 CDP emissions data available in the Bloomberg Professional Services terminal shows that just 7 out of 79 industries are responsible for over 85 percent of the annual GHG emissions from public equities.¹⁰⁹ The other 72 industries do contribute nominally to such emissions, but are affected by climate risk in other ways that are more complex, from a disclosure point of view. For example, financed emissions in a bank's loan portfolio (i.e., emissions induced by loans to, and investments in, companies that emit greenhouse gases) are more likely to be material than would be the bank's own (Scope 1) GHG emissions. Such nuanced distinctions would be lost were a line-item requirement on GHG emissions be promulgated.

SASB recommends that the SEC point companies to SASB standards for industry-specific metrics through which to disclose climate risk in a meaningful and cost-effective manner.

¹⁰⁹ SASB, Analysis of 2014 CDP data for Global Scope 1 Greenhouse Gas (GHG) Activity Emissions accessed via the Bloomberg Professional Service on June 30th, 2016.

V.E. Presentation and Delivery of Important Information

327. What disclosure requirements, if any, would generate more meaningful disclosure if we modified or eliminated the specific formatting or presentation requirements and permitted greater flexibility in the manner of presentation?

Investors need comparable data, year-on-year trends where possible (last three years of data), and management's view on the issue. See SASB's Mock 10-K (prepared for six industries) for a format for disclosing material sustainability-related risks and opportunities using the SASB standards in the MD&A section of the Form 10-K.¹¹⁰

V.G. Structured Disclosures

330. How can the quality of structured disclosures be enhanced?

SASB Comment: SASB standards are designed to be SEC-compliant and are ideal for disclosure in the MD&A section of the 10-K because of the broad range and long-term nature of sustainability issues, as well as the varying levels of risk and uncertainty inherent in them. XBRL is currently the only broad-based format for tagging disclosures internationally. SASB thus favors leveraging this existing infrastructure and allowing for voluntary XBRL tagging of sustainability-related disclosure information in the MD&A section of SEC filings.

SASB fully supports the SEC's pilot to allow iXBRL filings and hopes that there will be widespread adoption and a mandate for iXBRL in the future. iXBRL has the potential to reduce errors in data submission, simplify disclosure, and reduce the costs of disclosures for preparers while improving data quality. As the XBRL reporting tool infrastructure is well established, and XBRL tagging is used on an international basis. We believe that the cost of switching to iXBRL would be relatively low, and outweighed by the benefits of enhanced data quality.¹¹¹

SASB has prepared a complete XML taxonomy and a pilot XBRL taxonomy, and will develop the infrastructure to support an XBRL taxonomy when XBRL tagging is allowed in the MD&A.

SASB would be interested in participating in any task force that addresses the disclosure of sustainability information and the technological means to enhance consumption of this information.

331. Are there changes to the EDGAR system that the Commission should make to render the structured disclosure filed by registrants more useful?

SASB Comment: As noted in the response to question 330, SASB believes that switching to iXBRL and consolidating the reporting process into a single submission would reduce errors, save time, and improve data quality. In addition, SASB recommends that EDGAR accept XBRL tags in the MD&A section, as investors increasingly want to query and analyze non-financial data elements that may be disclosed (and ideally tagged) in the MD&A.

¹¹⁰ SASB MOCK 10-K LIBRARY, <http://using.sasb.org/mock-10-k-library/>.

¹¹¹ AICPA, "RESEARCH SHOWS XBRL FILING COSTS LOWER THAN EXPECTED," (2015) <https://www.aicpa.org/InterestAreas/FRC/AccountingFinancialReporting/XBRL/DownloadableDocuments/XBRL%20Costs%20for%20Small%20Companies.pdf>.

332. Are company-specific custom extensions, such as element or axis extensions, useful to investors or other users of structured disclosures? If so, how might these custom extensions be made more useful for enhancing automated analysis? If not, are there better ways to express disclosures that are unique to a company (e.g., business segment, product line)?

SASB Comment: Greater standardization and stronger rules on company-specific extensions will improve data comparability.

SASB standards have been developed to meet the market need for comparable sustainability information. SASB sees the need for stronger rules on company-specific extensions for XBRL tagging in order to achieve such comparability. Clear, strong protocols for company-specific extensions are the basis for other similar XBRL taxonomies such as EDINET, the Japanese equivalent of the EDGAR system. While the decision to use SASB standards is a determination that must be made by an individual company, we see the importance of reducing confusion in the marketplace and promoting greater comparability through the reduction in company-specific extensions. The use of a broadly-accepted market standard will provide data aggregators, their investment clients and standards setters with improved comparability, consistency, and traceability of data, reducing the time and cost of analyzing disclosures. It would also reduce preparer costs through the reuse of tags, and improve peer-to-peer performance benchmarking.

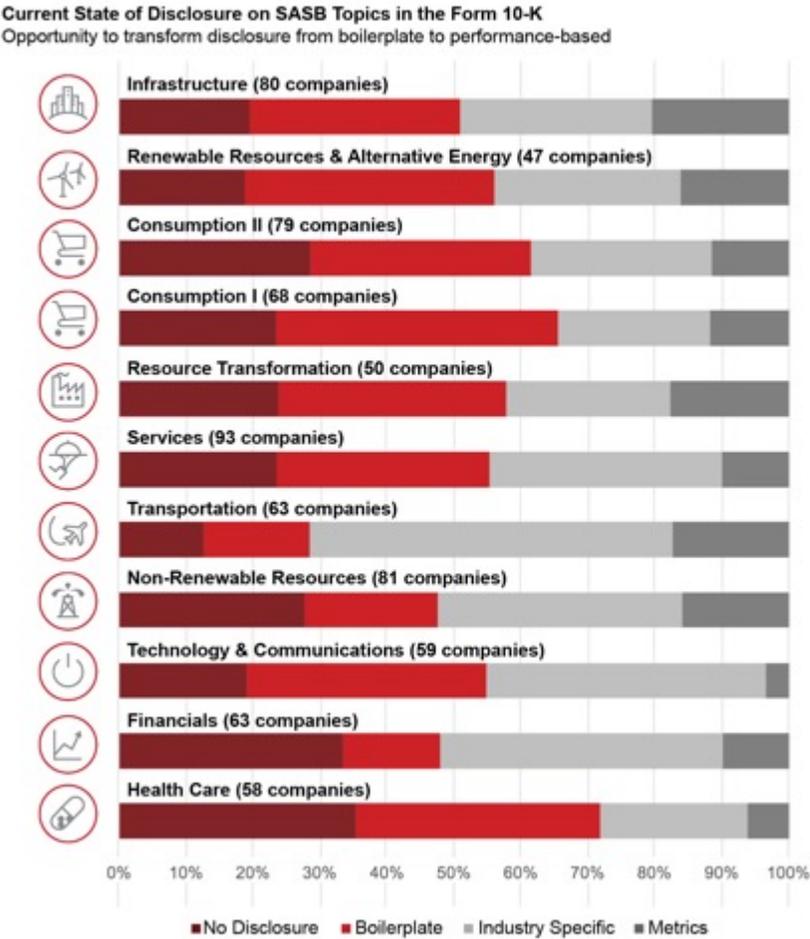
333. Should we require registrants to provide additional disclosures in a structured format? If so, which disclosures? For example, are there categories of information in Parts I and II of Form 10-K or in Form 10-Q that investors would want to receive as structured data?

SASB Comment: See the response to question 330. SASB standards are designed for issuers to achieve consistent measurement and structured presentation of material sustainability factors, which in turns allows peer-to-peer comparisons. XBRL tagging of SASB standards in an issuer's digital filing aids the process both of using the standard and ensuring a structured and comparable output for investors.

Appendix B – The Current State of Sustainability Disclosure in SEC Filings

During its standards development process, SASB analyzed the state of disclosure in annual SEC filings of the likely material sustainability disclosure topics included in each provisional SASB standard. Disclosure analyses were carried out at different points in time between April 2013 and February 2016 in conjunction with research and related Industry Working Group convenings for the 79 industries in SASB’s Sustainable Industry Classification System (SICS).¹¹² The analyses focused on identifying and categorizing disclosure practices by the top ten companies by revenue in each industry on their most recent Forms 10-Ks and 20-Fs. The analyses focused on identifying relevant disclosures mainly in Items 1, 1A, 3, 7 and 7A of the Form 10-K, or the equivalent sections of the Form 20-F, and classifying such disclosures based on the categories presented below. Figure G summarizes the results of these disclosure

Figure G



¹¹² SASB research analysts used the latest available annual SEC filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (A maximum of 10 companies per industry were analyzed. Due to industry composition, the number of companies analyzed for some industries was less than ten). Dates of analyses per sector were as follows: Health Care, April 2013; Financials, April 2013; Technology & Communications, February 2014; Non-Renewable Resources, May 2014; Transportation, August 2014; Services, October 2014; Resource Transformation, February 2015; Consumption I, May 2015; Consumption II, July 2015; Renewable Resources & Alternative Energy, October 2015; Infrastructure, February 2016.

analyses aggregated by SICCS sector.

- **No Disclosure:** The company does not provide any disclosure that is relevant to the topic under analysis.
- **Boilerplate:** The company provides disclosure using uniform language that has a definite, unvarying meaning in the same context that denotes that the words have not been sufficiently and individually fashioned to address the topic presented.
- **Industry-specific:** The company provides disclosure that is fashioned in a way that can only be understood in the context of the industry under analysis or that provides sufficient and individual additional insights into how a particular topic is managed.
- **Metrics:** The company provides disclosure using quantitative information, which may or may not include SASB metrics, to measure performance on the topic under analysis.

SASB is developing an interactive Disclosure Navigator tool that will be available to the public in late 2016. The Disclosure Navigator is a machine learning-based application that is capable of reading individual company 10-K & 20-F filings and extracting excerpts from them that are relevant to SASB industry-specific disclosure topics. The Disclosure Navigator's "engine" is an algorithm based on the above-mentioned disclosure analyses previously completed by SASB's research team. It will recursively train itself on identifying relevant excerpts and will continue to improve as more data becomes available with each filing year.

Upon its initial release, the Disclosure Navigator will allow for sector-, industry-, topic- and company-level disclosure analysis of SASB disclosure topics. Over time, we expect that it will be able to rate the quality of disclosure using rubrics under development by the SASB research team.

Appendix C – Examples of the Industry-specificity of Sustainability Factors, Related SASB Disclosure Topics, Value Drivers and Metrics

The SASB Materiality Map™ is an interactive tool that identifies and compares likely material sustainability issues across different industries and sectors and illustrates the potential for

Figure H – Excerpt – SASB Materiality Map™

	Health Care	Financials	Technology and Communications	Non-Renewable Resources	Transportation	Services	Resource Transformation	Consumption	Renewable Resources & Alternative Energy	Infrastructure
Environment										
GHG emissions										
Air quality										
Energy management										
Fuel management										
Water and wastewater management										
Waste and hazardous materials management										
Biodiversity impacts										
Social Capital										
Human rights and community relations										
Access and affordability										
Customer welfare										
Data security and customer privacy										
Fair disclosure and labeling										
Fair marketing and advertising										
Human Capital										
Labor relations										
Fair labor practices										
Employee health, safety and wellbeing										
Diversity and inclusion										
Compensation and benefits										
Recruitment, development and retention										
Business Model and Innovation										
Lifecycle impacts of products and services										
Environmental, social impacts on assets & operations										
Product packaging										
Product quality and safety										
Leadership and Governance										
Systemic risk management										
Accident and safety management										
Business ethics and transparency of payments										
Competitive behavior										
Regulatory capture and political influence										
Materials sourcing										
Supply chain management										

Sector Level Map Key

- Issue is likely to be material for more than 50% of industries in sector
- Issue is likely to be material for less than 50% of industries in sector
- Issue is not likely to be material for any of the industries in sector

material impacts of 30 sustainability issues across 79 industries.

Sustainability issues are divided into five dimensions:

- . Environment
- . Social Capital
- . Human Capital
- . Business Model & Innovation
- . Leadership & Governance

The SASB Materiality Map™ helps issuers focus their sustainability strategies on the most important issues and provides investors with a “heat map” of portfolio exposure to sustainability risks and opportunities.

See Figure H for a static excerpt of the Map. A full, interactive version of the SASB Materiality Map™ is available [here](#).

Material topics affect the financial condition or operating performance of a company. Figure I, with excerpts from select SASB standards, provides a small number of examples of the industry-specific sustainability topics in SASB’s standards. The table illustrates the specificity of sustainability topics in SASB standards by industry, the value drivers that affect the financial condition of a company due to performance on the sustainability-related topic, and the detailed nature of the metric that characterizes performance on the topic.

Figure I

Materiality is a central concern to investors

Material topics affect the financial condition or operating performance of a company

Industry	Disclosure Topic	Value Driver Impacted	Selected Metrics
Automobiles	Fuel Economy & Use-phase Emissions	<ul style="list-style-type: none"> Revenue 	<ul style="list-style-type: none"> Sales-weighted average passenger fleet fuel economy, consumption, or emissions, by region
Auto Parts	Product Safety	<ul style="list-style-type: none"> Reputation Liabilities 	<ul style="list-style-type: none"> Number of recalls and total units recalled
Oil & Gas – Exploration & Production	Reserves Valuation & Capital Expenditures	<ul style="list-style-type: none"> Assets CAPEX Cost of Capital 	<ul style="list-style-type: none"> Sensitivity of hydrocarbon reserve levels to future price projection scenarios that account for a price on carbon emissions. Estimated carbon dioxide emissions embedded in proved hydrocarbon reserves
Restaurants	Food Safety	<ul style="list-style-type: none"> Revenue Reputation 	<ul style="list-style-type: none"> Number of recalls, total amount of food product recalls Number of confirmed foodborne illness outbreaks, percentage resulting in CDC investigation.
Agricultural Products	Climate Change Impacts on Crop Yields	<ul style="list-style-type: none"> Revenue Cost of Capital 	<ul style="list-style-type: none"> Average crop yield and five-year standard deviation per major crop type by major operating region Identification of principal crops and discussion of risks and opportunities presented by climate change
Pharmaceuticals	Counterfeit Drugs	<ul style="list-style-type: none"> Revenue OPEX Reputation 	<ul style="list-style-type: none"> Description of methods and technologies used to maintain traceability of products throughout the supply chain and prevent counterfeiting. Description of process for alerting end customers and business partners of potential or known risks associated with counterfeit products.
Biotechnology	Affordability & Fair Pricing	<ul style="list-style-type: none"> Revenue Reputation 	<ul style="list-style-type: none"> Ratio of weighted average rate of net price increases (for all products) to the annual increase in the U.S. Consumer Price Index.
Real Estate	Energy Management	<ul style="list-style-type: none"> OPEX Assets 	<ul style="list-style-type: none"> Like-for-like change in energy consumption of portfolio area with data coverage, by property subsector. Percentage of eligible portfolio that (1) has obtained an energy rating and (2) is certified to ENERGY STAR®, by property subsector.

Every SASB standard comprises industry-specific disclosure topics, technical protocol for compiling data, and accounting metrics for the disclosure of the issue. Each disclosure topic is associated with at least one value driver. (See Figure J.)

Figure J

Robust Standards Designed to Provide Decision-Useful Information
 SASB standards contain industry-specific disclosure topics, metrics, and guidance

Table 1. Material Sustainability Topics & Accounting Metrics

TOPIC	ACCOUNTING METRIC
Greenhouse Gas Emissions	Gross global Scope 1 emissions, percentage covered under a regulatory program, percentage by hydrocarbon resource
	Amount of gross global Scope 1 emissions from: (1) combustion, (2) flared hydrocarbons, (3) process emissions, (4) directly vented releases, and (5) fugitive emissions/leaks
	Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets
Air Quality	Air emissions for the following pollutants: NO _x (excluding N ₂ O), SO _x , volatile organic compounds (VOCs), and particulate matter (PM)
Water Management	Total fresh water withdrawn, percentage recycled, percentage in regions with High or Extremely High Baseline Water Stress
	Volume of produced water and flowback generated; percentage (1) discharged, (2) injected, (3) recycled; hydrocarbon content in discharged water

Reserves Valuation & Capital Expenditures

Description

Estimates suggest that E&P companies are unlikely to be able to extract a significant proportion of probable oil and gas reserves if GHG emissions are to be controlled to limit global temperatures to 1.5 degrees Celsius. Companies with more carbon-intensive reserves and production and higher energy technologies, could lower or reduce the growth in global demand, and therefore reduce gas products. Extraction costs could increase with regulations that put a price on GHG emissions, could affect the net present value of oil and gas reserves. Regulatory actions that are more stringent or those focusing on industries with high emissions, could impair asset values substantially over time. Stewardship of capital resources and production decisions that take into account risks related to climate change mitigation actions can help prevent current asset impairment and maintain creditworthiness.

Accounting Metrics

NR0101-22. Sensitivity of hydrocarbon reserve levels to future price projection scenario with a price on carbon emissions

.122 The registrant shall conduct an analysis of its reserves to determine how several future price scenarios affect its determination of whether the reserves are proved or probable.

Industry-specific disclosure topics

Accounting metrics for each disclosure topic

Technical protocol for compiling data; activity metrics for normalization

Appendix D – The Industry-specificity of Climate-related Risk

SASB published its Technical Bulletin on Climate Risk¹¹³ in January, 2016. The Bulletin was issued in to provide a complete view of climate change impacts across all industries and to inform the efforts of The Financial Stability Board’s (FSB)¹¹⁴ Task Force on Climate Related Disclosure (TCFD).¹¹⁵

The Bulletin illustrates the pervasive nature of climate risk which was determined to affect 72 of 79 industries, or 93 percent of the U.S. equity market in terms of market capitalization.

SASB’s Climate Change Framework, used to analyze climate risk, is characterized by three unique aspects:

- Identification of where and how climate risk may have **material** impacts on corporate financial value
- Recognition that climate-related impacts manifest themselves in **industry-specific** ways
- Development of metrics that help corporate issuers disclose **decision-useful** information to investors in a **cost-effective** way.

SASB identified three distinct types of climate risk via this Framework – physical risk, regulatory risk, and transitional risk (associated with transitioning to a low carbon economy). It also identified four channels of financial impact through which these risks can ultimately impact investment returns – cash flow, operating impacts, asset value impacts and financing impacts.

The Bulletin’s key findings were:

- Climate risk is systemic in nature
- Climate risk is diverse
- Climate risk is not currently disclosed adequately and understanding it requires specialized disclosures
- The financial implications of climate risk are tangible and identifiable

While overall climate risk was found to be ubiquitous, SASB research found that the impact of climate risk manifests itself differently from industry to industry. SASB’s Climate Risk Materiality Map (see Figure K) provides an industry-by-industry look at how different industries are impacted by different types of climate-related risk. It draws on relevant disclosure topics from the SASB standards to present a climate-specific view of the SASB Materiality Map.

¹¹³ SASB, CLIMATE RISK: TECHNICAL BULLETIN 2016-01 (working draft Jan. 27, 2016), <http://using.sasb.org/wp-content/uploads/2016/02/SASB-Technical-Bulletin-Climate-Risk-02022016c.pdf>.

¹¹⁴ The Financial Stability Board (FSB) is an international body that monitors and makes recommendations about the global financial system, FSB members include the SEC, the Board of Governors of the Federal Reserve System, and the U.S. Department of Treasury, in addition to 23 international institutions and the EU.

¹¹⁵ Task Force on Climate Related Disclosure (TCFD) was launched in December 2015 by the FSB at the request of the G20. The TCFD is aimed at helping companies better understand what financial markets need from disclosure in order to measure and manage climate risk, and is mandated to make recommendations for improving voluntary financial disclosure of those risks. More on the TCFD can be found at: <https://www.fsb-tcfd.org>.

Figure K – Climate Risk Materiality Map

Sector & Industries	Climate Risk Category		
	Physical Effects	Transition To A Low-Carbon, Resilient Economy	Climate Regulation
Health Care			
Biotechnology	High	Medium	Low
Pharmaceuticals	High	Medium	Low
Medical Equipment & Supplies	High	Medium	Low
Healthcare Delivery	High	Medium	Low
Healthcare Distribution	High	Medium	Low
Managed Care	High	Medium	Low
Financials			
Commercial Banks	Low	Medium	Low
Investment Banking	Low	Medium	Low
Asset Management	Low	Medium	Low
Consumer Finance	Low	Medium	Low
Mortgage Finance	High	Medium	Low
Security and Commodity Exchanges	Low	Medium	Low
Insurance	High	Medium	Low
Technology & Communications			
Hardware	Low	Medium	Low
EMS & ODM	High	Medium	Low
Semiconductors	High	Medium	High
Software & IT Services	High	Medium	Low
Internet & Media Services	High	Medium	Low
Telecommunications	High	Medium	Low
Non-Renewable Resources			
Oil & Gas - Exploration & Production	High	Medium	High
Oil & Gas - Midstream	Low	Medium	Low
Oil & Gas - Refining & Marketing	High	Medium	High
Oil & Gas - Services	Low	Medium	Low
Coal Operations	High	Medium	High
Iron & Steel Producers	High	Medium	High
Metals & Mining	High	Medium	High
Construction Materials	High	Medium	High
Transportation			
Automobiles	Low	Medium	High
Auto Parts	Low	Medium	Low
Car Rental & Leasing	Low	Medium	Low
Airlines	Low	Medium	High
Air Freight & Logistics	Low	Medium	High
Marine Transportation	Low	Medium	High
Rail Transportation	Low	Medium	High
Road Transportation	Low	Medium	High
Resource Transformation			
Chemicals	High	Medium	High
Aerospace & Defense	Low	Medium	Low
Electric & Electronic Equipment	Low	Medium	Low
Industrial Machinery & Goods	Low	Medium	High
Containers & Packaging	High	Medium	High

Sector & Industries	Climate Risk Category		
	Physical Effects	Transition To A Low-Carbon, Resilient Economy	Climate Regulation
Services			
Education	Low	Low	Low
Professional Services	Low	Low	Low
Hotels & Lodging	High	Medium	Low
Casinos & Gaming	Low	Medium	Low
Restaurants	High	Medium	Low
Leisure Facilities	Low	Medium	Low
Cruise Lines	Low	Medium	High
Advertising & Marketing	Low	Low	Low
Media Production & Distribution	Low	Low	Low
Cable & Satellite	Low	Medium	Low
Consumption I			
Agricultural Products	High	Medium	High
Meat, Poultry & Dairy	High	Medium	High
Processed Foods	High	Medium	Low
Non-Alcoholic Beverages	High	Medium	Low
Alcoholic Beverages	High	Medium	Low
Tobacco	Low	Medium	Low
Household & Personal Products	High	Medium	Low
Consumption II			
Food Retailers & Distributors	High	Medium	High
Drug Retailers & Convenience Stores	Low	Medium	Low
Multiline and Specialty Retailers & Distributors	Low	Medium	Low
E-Commerce	High	Medium	Low
Apparel, Accessories & Footwear	High	Medium	Low
Appliance Manufacturing	Low	Medium	Low
Building Products & Furnishings	High	Medium	Low
Toys & Sporting Goods	Low	Medium	Low
Renewable Resources			
Biofuels	High	Medium	High
Solar Energy	High	Medium	High
Wind Energy	Low	Medium	Low
Fuel Cells & Industrial Batteries	Low	Medium	Low
Pulp & Paper Products	High	Medium	High
Forestry Management	High	Medium	Low
Infrastructure			
Electric Utilities	High	Medium	High
Gas Utilities	High	Medium	High
Water Utilities	High	Medium	High
Waste Management	Low	Medium	High
Engineering & Construction Services	Low	Medium	Low
Home Builders	High	Medium	Low
Real Estate Owners, Developers & Investment Trusts	High	Medium	Low
Real Estate Services	Low	Medium	Low

Appendix E

Cost-Effective Alignment with Industry Standards

SASB references metrics already in use by industry, from 200+ organization

Health Care

WHO Prequalification of Medicines Programme (PQP)
FDA FAERS and MedWatch
FDA Clinical Investigator Inspections
Rx-360 International
Pharmaceutical Supply Chain Consortium
Centers for Medicare & Medicaid Services requirements
Provisions of the Patient Protection and Affordable Care Act (PPACA)
Hospital Values Based Purchasing Performance score
HIPAA and HITECH

Transportation

New Car Assessment Program
EU End of Life of Vehicle Directive NHTSA
Corporate Average Fuel Economy AIAG
Federal Aviation Administration (FAA)
International Civil Aviation Organization (ICAO)
Federal Motor Carrier Safety Administration (FMCSA) - Behavior Analysis and Safety Improvement Categories (BASICS)
International Maritime Organization (IMO) metrics and conventions
International Convention for the Prevention of Pollution from Ships (MARPOL)
Federal Rail Administration (FRA) Recommended Violation Defects

Services

Student Right-to-Know-Act
Gainful Employment Rule
National Council on Problem Gambling's Internet Responsible Gambling Standards
CDC Foodborne illness standards
USDA Dietary Guidelines for Americans
Advertising Self-Regulatory Council

Financials

FINRA
Basel III
Federal Financial Institutions Examination Council's (FFIEC) Equator Principles (EP III)
Dodd-Frank Act Stress Test (DFAST)
COSO ERM Framework
Dodd-Frank Wall Street Reform and Consumer Protection Act
FEMA special flood hazard areas

Consumption

Marine Stewardship Council
Roundtable for Responsible Soy
Roundtable for Sustainable Palm Oil
Rainforest Alliance
Sustainable Agriculture Initiative
World Health Organization (WHO) Acute Toxicity Hazard Categories
Global Food Safety Initiative (GFSI) Natural Resources
Conservation Service (NRCS) Comprehensive Nutrient Management Plan (CNMP)
Food Safety and Inspection Service (FSIS) of the U.S. Department of Agriculture (USDA)
USDA Smart Snacks in School criteria
Children's Food and Beverage Initiative (CFBAI) Uniform Nutrition Criteria
FDA's Recalls, Market Withdrawals, & Safety Alerts
USDA's Current Recalls and Alerts
Children's Food and Beverage Initiative (CFBAI) Uniform Nutrition Criteria
Sustainable Apparel Coalition Higg Index
ICTI CARE Process (ICP)
California DTSC Candidate Chemicals List
U.S. Green Building Council's (USGBC) LEED
ISO 14040 and ISO14044
ENERGY STAR®
WaterSense
ANSI/BIFMA e3 level®: Business Furniture

Technology & Communication

EICC Validated Audit Process
EPEAT® • Basel Action Network's e-Steward® standard
U.S. EPA's Responsible Recycling Practices (R2) standard
(SEC) CF Disclosure Guidance: Topic No. 2, Cybersecurity
International Electrotechnical Commission - IEC 62474
ENERGY STAR®
Digital Advertising Alliance (DAA) Self-Regulatory Program
Children's Online Privacy Protection Act (COPPA)
Directive 2002/58/EC (ePrivacy Directive)
National Institute of Standards and Technology (NIST)

Resource Transformation

REACH substances of very high concern (SVHC)
American Chemistry Council's Responsible Care Management System
World Health Organization (WHO) Acute Toxicity Hazard Categories
Center for Chemical Process Safety's "Process Safety Leading and Lagging Metrics"
U.S. Consumer Product Safety Commission
Airworthiness Directives - FAA, ESSA
OECD Anti-corruption guidelines
EPEAT®
Basel Action Network's e-Steward® standard
U.S. EPA's Responsible Recycling Practices (R2) standard
(SEC) CF Disclosure Guidance: Topic No. 2, Cybersecurity
International Electrotechnical Commission - IEC 62474
ENERGY STAR®
Heavy Duty (HD) National Program
Forest Stewardship Council
Sustainable Forest Initiative
Programme for the Endorsement of Forest Certification
American Tree Farm System

Non-Renewable Resources

Transparency International's Corruption Perception Index
IFC Performance Standards on Environmental and Social Sustainability
IPIECA Oil and Gas Industry Guidance on Voluntary Sustainability Reporting
Renewable Volume Obligation (RVO)
International Union for Conservation of Nature (IUCN) Protected Areas
Pipeline and Hazardous Materials Safety Administration (PHMSA)
ANSI/API Recommended Practice 754 – Process Safety Performance Indicators for the Refining and Petrochemical Industries
Mine Safety and Health Administration (MSHA)

Renewable Resources & Alternative Energy

Renewable Fuel Standard (EPA RFS2)
International Food Policy Research Institute Global Hunger Index
California Air Resources Board Low Carbon Fuel Standard Program
European Union Renewable Energy Directive
Roundtable on Sustainable Biomaterials (RSB) certification
Basel Action Network's e-Steward® standard
U.S. EPA's Responsible Recycling Practices (R2) standard
IEC 61400-1, Edition 3.0— Design requirements
Forest Stewardship Council
Sustainable Forest Initiative
Programme for the Endorsement of Forest Certification
American Tree Farm System
International Finance Corporation's (IFC) Performance Standards on Environmental and Social Sustainability
International Union for Conservation of Nature (IUCN) Protected Areas
United Nations Environment Program
International Labour Organization (ILO) conventions

Infrastructure

EPA Hazard Potential Classification
U.S. EPA National Environmental Policy Act (NEPA)
National Institute of Standards and Technology (NIST) Smart Grid Interoperability Standards
Department of Energy's (DOE) Federal Energy Management Program (FEMP) M&V Guidelines
State renewable portfolio standards (RPS)
System Average Interruption Duration Index (SAIDI)
U.S. National Primary Drinking Water Regulations
The U.S. Safe Drinking Water Act
The European Drinking Water Directive
World Health Organization (WHO) Guidelines for Drinking-water Quality
FEMA Special Flood Hazard Areas (SFHA)
Global Real Estate Sustainability Benchmark (GRESB) Real Estate Survey Guidance
US Green Building Council LEED Green Globes
ENERGY STAR
HERS® Index Score
WaterSense

Appendix F

SASB's Sustainable Industry Classification System (SICS™)

Where traditional industry classification systems group companies by sources of revenue, SASB's approach considers the resource intensity of firms and whether or not they face common sustainability risks and opportunities.

Consumption	Infrastructure	Services
<ul style="list-style-type: none">- Agricultural Products- Meat, Poultry & Dairy- Processed Foods- Non-Alcoholic Beverages- Alcoholic Beverages- Tobacco- Household & Personal Products- Multiline and Specialty Retailers & Distributors- Food Retailers & Distributors- Drug Retailers & Convenience Stores- E-Commerce- Apparel, Accessories & Footwear- Building Products & Furnishings- Appliance Manufacturing- Toys & Sporting Goods	<ul style="list-style-type: none">- Electric Utilities- Gas Utilities- Water Utilities- Waste Management- Engineering & Construction Services- Home Builders- Real Estate Owners, Developers & Investment Trusts- Real Estate Services	<ul style="list-style-type: none">- Education- Professional Services- Hotels & Lodging- Casinos & Gaming- Restaurants- Leisure Facilities- Cruise Lines- Advertising & Marketing- Media Production & Distribution- Cable & Satellite
	Non-Renewable Resources	Technology & Communications
	<ul style="list-style-type: none">- Oil & Gas – Exploration & Production- Oil & Gas – Midstream- Oil & Gas – Refining & Marketing- Oil & Gas – Services- Coal Operations- Iron & Steel Producers- Metals & Mining- Construction Materials	<ul style="list-style-type: none">- Electronic Manufacturing Services & Original Design Manufacturing- Software & IT Services- Hardware- Semiconductors- Telecommunications- Internet Media & Services
Financials	Renewable Resources & Alternative Energy	Transportation
<ul style="list-style-type: none">- Commercial Banks- Investment Banking & Brokerage- Asset Management & Custody Activities- Consumer Finance- Mortgage Finance- Security & Commodity Exchanges- Insurance	<ul style="list-style-type: none">- Biofuels- Solar Energy- Wind Energy- Fuel Cells & Industrial Batteries- Forestry & Logging- Pulp & Paper Products	<ul style="list-style-type: none">- Automobiles- Auto Parts- Car Rental & Leasing- Airlines- Air Freight & Logistics- Marine Transportation- Rail Transportation- Road Transportation
Health Care	Resource Transformation	
<ul style="list-style-type: none">- Biotechnology- Pharmaceuticals- Medical Equipment & Supplies- Health Care Delivery- Health Care Distributors- Managed Care	<ul style="list-style-type: none">- Chemicals- Aerospace & Defense- Electrical & Electronic Equipment- Industrial Machinery & Goods- Containers & Packaging	

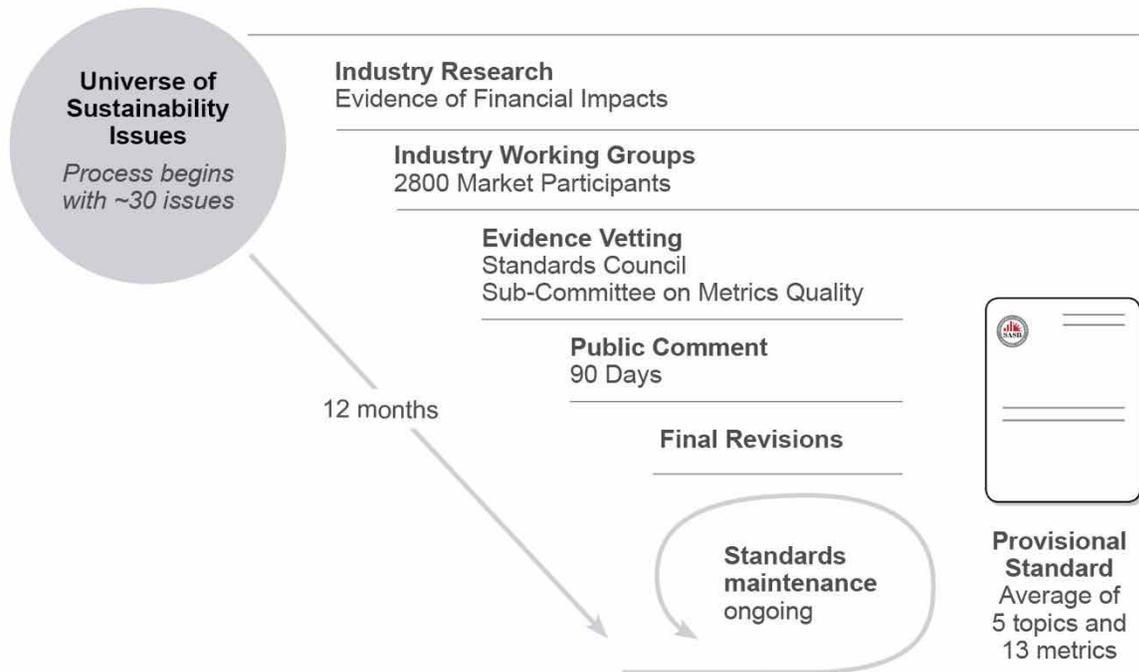
Appendix G – SASB’s Standards Setting Process

SASB’s provisional standards development process (summarized in Figure L) began with a three-month, in-house research phase to identify disclosure topics and related accounting metrics. SASB’s research team examined two types of evidence, evidence of interest and evidence of financial impact, in order to determine a minimum set of disclosure topics for each industry. Evidence of interest was gathered by searching tens of thousands of industry-related documents (i.e., Form 10-Ks, shareholder resolutions, CSR reports, media, and SEC comment letters) for keywords related to 30 general sustainability issues. This provided a “heat map” that indicated interest in certain issues by investors and other stakeholders. Evidence of financial impact was gathered by examining sell-side research, investor call transcripts, third-party research, datasets on sustainability issues and related costs and regulatory actions, and news articles, among other sources of sustainability and financial information.

Figure L

Rigorous Process Drives SASB Standards

Standards for each industry are rooted in evidence and shaped by market input



After identifying the minimum set of disclosure topics for an industry, for which there was solid evidence of both investor interest and financial impact, SASB identified and documented existing metrics and practices used to account for performance on each disclosure topic. When possible, SASB harvested existing metrics and management disclosure formats. When high-quality metrics and management disclosures were not available, SASB constructed new ones. The result of Phase 1 was an Industry Brief that outlined the proposed set of disclosure topics and accounting metrics for each industry.¹¹⁶

¹¹⁶ SASB industry research briefs are available free of charge at <http://www.sasb.org/approach/our-process/industry-briefs>.

SASB then released each Exposure Draft Standard for a 90-day [public comment period](#). During this time, any member of the public could download the Exposure Draft Standard from SASB's website and provide feedback. At the conclusion of the public comment period, SASB incorporated feedback received into the standard. The provisional Sustainability Accounting Standard was then published and made available to the public.

The provisional standards can be used by investors and companies; provisionality does not impair their use. During the provisional phase, SASB welcomes [feedback](#) from the public. At the end of the provisional period, based on the codification process outlined in the Rules of Procedure, SASB will codify the standards and remove the provisional label.

Several factors make SASB's process unique:

- Providing research to industry working groups presents a point of departure for the evaluation of issues and metrics, which facilitates reaching consensus on disclosure topics that are reasonably likely to constitute material information for companies in an industry.
- Collecting feedback via online surveys reduced the likelihood of groupthink and allowed SASB to host large working groups, at no expense or charge to participants.
- The public had multiple opportunities to provide feedback on SASB standards, including industry working groups (open to anyone with five-plus years of industry experience), public comment periods (open to all), and the Delta Series event (open to all). SASB actively seeks balanced feedback from its three stakeholder groups: corporations, market beneficiaries, and public interest/intermediaries.

SASB's process is transparent. A summary of feedback received during industry working groups and public comment periods (as well as SASB's responses) is available in SASB's reports to the Standards Council. These reports are posted to the sector pages on SASB's website after the Standards Council's review of the sector.¹¹⁷

¹¹⁷ View Standards Council reports sector by sector, by selecting a sector from the drop-down "sector" menu at <http://www.sasb.org>.



www.sasb.org

SUSTAINABILITY ACCOUNTING STANDARD
TRANSPORTATION SECTOR

AUTOMOBILES

Sustainability Accounting Standard

Sustainable Industry Classification System™ (SICS™) #TR0101

Prepared by the
Sustainability Accounting Standards Board®

September 2014
Provisional Standard

AUTOMOBILES

Sustainability Accounting Standard

About SASB

The Sustainability Accounting Standards Board (SASB) provides sustainability accounting standards for use by publicly listed corporations in the U.S. in disclosing material sustainability information for the benefit of investors and the public. SASB standards are designed for disclosure in mandatory filings to the Securities and Exchange Commission (SEC), such as the Form 10-K and 20-F. SASB is an independent 501(c)3 non-profit organization. Through 2016, SASB is developing standards for more than 80 industries in 10 sectors.

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INTRODUCTION

Purpose & Structure

This document contains the SASB Sustainability Accounting Standard (SASB Standard) for Automobiles.

SASB Standards are comprised of **(1) disclosure guidance and (2) accounting standards on sustainability topics** for use by U.S. and foreign public companies in their annual filings (Form 10-K or 20-F) with the U.S. Securities and Exchange Commission (SEC). To the extent relevant, SASB Standards may also be applicable to other periodic mandatory filings with the SEC, such as the Form 10-Q, Form S-1, and Form 8-K.

SASB's disclosure guidance identifies sustainability topics at an industry level, which may be material— depending on a company's specific operating context— to a company within that industry.

Each company is ultimately responsible for determining which information is material and is therefore required to be included in its Form 10-K or 20-F and other periodic SEC filings.

SASB's accounting standards provide companies with standardized accounting metrics to account for performance on industry-level sustainability topics. When making disclosure on sustainability topics, companies adopting SASB's accounting standards will help to ensure that disclosure is standardized and therefore useful, relevant, comparable, and auditable.

Industry Description

The Automobiles industry includes companies that manufacture passenger vehicles, light trucks, and motorcycles. Industry players design, build, and sell vehicles that run on a range of traditional and alternative fuels and powertrains. Auto makers sell vehicles to dealers for consumer retail sales as well as selling directly to fleet customers, including car rental and leasing companies, commercial fleet customers, and governments. Due to the global nature of this industry, nearly all market players have manufacturing facilities, assembly plants, and service locations in several countries around the world. The Automobiles industry is highly concentrated, with a few large manufacturers and a large number of auto parts manufacturers feeding the supply chain.

Guidance for Disclosure of Material Sustainability Topics in SEC Filings

1. Industry-Level Sustainability Disclosure Topics

For the Automobiles industry, SASB has identified the following sustainability disclosure topics:

- Materials Efficiency & Recycling
- Product Safety
- Labor Relations
- Fuel Economy & Use-phase Emissions
- Materials Sourcing

2. Company-Level Determination and Disclosure of Material Sustainability Topics

Sustainability disclosures are governed by the same laws and regulations that govern disclosures by securities issuers generally. According to the U.S. Supreme Court, a fact is material if, in the event such fact is omitted from a particular disclosure, 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 the information made available.”^{1,2}

SASB has attempted to identify those sustainability topics that it believes may be material for all companies within each SICs industry. SASB recognizes, however, that each company is ultimately responsible for determining what is material to it.

Regulation S-K, which sets forth certain disclosure requirements associated with Form 10-K and other SEC filings, requires companies, among other things, to describe in the Management’s Discussion and Analysis of Financial Condition and Results of Operations (MD&A) section of Form 10-K “any known trends or uncertainties that have had or that the registrant reasonably expects will have a material favorable or unfavorable impact on net sales or revenues or income from continuing operations. If the registrant knows of events that will cause a material change in the relationship between costs and revenues (such as known future increases in costs of labor or materials or price increases or inventory adjustments), the change in the relationship shall be disclosed.”²

Furthermore, Instructions to Item 303 state that the MD&A “shall focus specifically on material events and uncertainties known to management that would cause reported financial information not to be necessarily indicative of future operating results or of future financial condition.”²

In determining whether a trend or uncertainty should be disclosed, the SEC has stated that management should use a two-part assessment based on probability and magnitude:

- First, a company is not required to make disclosure about a known trend or uncertainty if its management determines that such trend or uncertainty is not reasonably likely to occur.
- Second, if a company’s management cannot make a reasonable determination of the likelihood of an event or uncertainty, then disclosure is required unless management determines that a material effect on the registrant’s financial condition or results of operation is not reasonably likely to occur.

¹ TSC Industries v. Northway, Inc., 426 U.S. 438 (1976).

² C.F.R. 229.303(item 303)(a)(3)(ii).

3. Sustainability Accounting Standard Disclosures in Form 10-K

a. Management's Discussion and Analysis

Companies should consider making disclosure on sustainability topics as a complete set in the MD&A, in a sub-section titled "**Sustainability Accounting Standards Disclosures**."³

b. Other Relevant Sections of Form 10-K

In addition to the MD&A section, companies should consider disclosing sustainability information in other sections of Form 10-K, as relevant, including:

- **Description of business**—Item 101 of Regulation S-K requires a company to provide a description of its business and its subsidiaries. Item 101(c)(1)(xii) expressly requires disclosure regarding certain costs of complying with environmental laws:

Appropriate disclosure also shall be made as to the material effects that compliance with Federal, State and local provisions which have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, may have upon the capital expenditures, earnings and competitive position of the registrant and its subsidiaries.

- **Legal proceedings**—Item 103 of Regulation S-K requires companies to describe briefly any material pending or contemplated legal proceedings. Instructions to Item 103 provide specific disclosure requirements for administrative or judicial proceedings arising from laws and regulations that target discharge of materials into the environment or that are primarily for the purpose of protecting the environment.
- **Risk factors**—Item 503(c) of Regulation S-K requires filing companies to provide a discussion of the most significant factors that make an investment in the registrant speculative or risky, clearly stating the risk and specifying how a particular risk affects the particular filing company.

c. Rule 12b-20

Securities Act Rule 408 and Exchange Act Rule 12b-20 require a registrant to disclose, in addition to the information expressly required by law or 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."

More detailed guidance on disclosure of material sustainability topics can be found in the **SASB Conceptual Framework**, available for download via <http://www.sasb.org/approach/conceptual-framework/>.

³ SEC [Release Nos. 33-8056; 34-45321; FR-61] [Commission Statement about Management's Discussion and Analysis of Financial Condition and Results of Operations](#): "We also want to remind registrants that disclosure must be both useful and understandable. That is, management should provide the most relevant information and provide it using language and formats that investors can be expected to understand. Registrants should be aware also that investors will often find information relating to a particular matter more meaningful if it is disclosed in a single location, rather than presented in a fragmented manner throughout the filing."

Guidance on Accounting of Material Sustainability Topics

For sustainability disclosure topics in the Automobiles industry, SASB identifies accounting metrics.

SASB recommends that each company consider using these sustainability accounting metrics when disclosing its performance with respect to each of the sustainability topics it has identified as material.

As appropriate—and consistent with Rule 12b-20⁴—for each sustainability topic, companies should consider including a narrative description of any material factors necessary to ensure completeness, accuracy, and comparability of the data reported. Where not addressed by the specific accounting metrics, but relevant, the registrant should discuss the following, related to the topic:

- The registrant’s **strategic approach** to managing performance on material sustainability issues;
- The registrant’s competitive positioning;
- The **degree of control** the registrant has;
- Any measures the registrant has undertaken or plans to undertake to improve performance; and
- Data for the registrant’s **last three completed fiscal years** (when available).

SASB recommends that registrants use SASB Standards specific to their primary industry as identified in the [Sustainable Industry Classification System \(SICSTM\)](#). If a registrant generates significant revenue from multiple industries, SASB recommends that it consider the materiality of the sustainability issues that SASB has identified for those industries and disclose the associated SASB accounting metrics.

Users of the SASB Standards

The SASB Standards are intended for companies that engage in public offerings of securities registered under the Securities Act of 1933 (the Securities Act) and those that issue securities registered under the Securities Exchange Act of 1934 (the Exchange Act),⁵ for use in SEC filings, including, without limitation, annual reports on Form 10-K (Form 20-F for foreign issuers), quarterly reports on Form 10-Q, current reports on Form 8-K, and registration statements on Forms S-1 and S-3. Nevertheless, disclosure with respect to the SASB Standards is not required or endorsed by the SEC or other entities governing financial reporting, such as FASB, GASB, or IASB.

⁴ SEC Rule 12b-20: “In addition to the information expressly required to be included in a statement or report, there shall be added such further material information, if any, as may be necessary to make the required statements, in the light of the circumstances under which they are made, not misleading.”

⁵ Registration under the Securities Exchange Act of 1934 is required (1) for securities to be listed on a national securities exchange such as the New York Stock Exchange, the NYSE Amex, and the NASDAQ Stock Market or (2) if (A) the securities are equity securities and are held by more than 2,000 persons (or 500 persons who are not accredited investors) and (B) the company has more than \$10 million in assets.

Scope of Disclosure

Unless otherwise specified, SASB recommends:

- That a registrant disclose on sustainability issues and metrics for itself and for entities in which the registrant has a controlling interest and therefore are consolidated for financial reporting purposes (controlling interest is generally defined as ownership of 50% or more of voting shares);⁶
- That for consolidated entities, disclosures be made, and accounting metrics calculated, for the whole entity, regardless of the size of the minority interest; and
- That information from unconsolidated entities not be included in the computation of SASB accounting metrics. A registrant should disclose, however, information about unconsolidated entities to the extent that the registrant considers the information necessary for investors to understand its performance with respect to sustainability issues (typically, this disclosure would be limited to risks and opportunities associated with these entities).

Reporting Format

Activity Metrics and Normalization

SASB recognizes that normalizing accounting metrics is important for the analysis of SASB disclosures.

SASB recommends that a registrant disclose any basic business data that may assist in the accurate evaluation and comparability of disclosure, to the extent that they are not already disclosed in the Form 10-K (e.g., revenue, EBITDA, etc.).

Such data—termed “activity metrics”—may include high-level business data such as total number of employees, quantity of products produced or services provided, number of facilities, or number of customers. It may also include industry-specific data such as plant capacity utilization (e.g., for specialty chemical companies), number of transactions (e.g., for Internet media and services companies), hospital bed days (e.g., for health care delivery companies), or proven and probable reserves (e.g., for oil and gas exploration and production companies).

Activity metrics disclosed should:

- Convey contextual information that would not otherwise be apparent from SASB accounting metrics.
- Be deemed generally useful for users of SASB accounting metrics (e.g., investors) in performing their own calculations and creating their own ratios.
- Be explained and consistently disclosed from period to period to the extent they continue to be relevant. However, a decision to make a voluntary disclosure in one period does not obligate a continuation of that disclosure if it is no longer relevant or if a better metric becomes available.

⁶ See US GAAP consolidation rules (Section 810).

Where relevant, SASB recommends specific activity metrics that—at a minimum—should accompany SASB accounting metric disclosures.

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of vehicles produced	Quantitative	Number	TR0101-A
Number of vehicles sold	Quantitative	Number	TR0101-B

Units of Measure

Unless specified, disclosures should be reported in International System of Units (SI units).

Uncertainty

SASB recognizes that there may be inherent uncertainty when disclosing certain sustainability data and information. This may be related to variables such as the imperfectness of third-party reporting systems or the unpredictable nature of climate events. Where uncertainty around a particular disclosure exists, SASB recommends that the registrant should consider discussing its nature and likelihood.

Estimates

SASB recognizes that scientifically-based estimates, such as the reliance on certain conversion factors or the exclusion of *de minimis* values, may be necessary for certain quantitative disclosures. Where appropriate, SASB does not discourage the use of such estimates. When using an estimate for a particular disclosure, SASB expects that the registrant discuss its nature and substantiate its basis.

Timing

Unless otherwise specified, disclosure shall be for the registrant's fiscal year.

Limitations

There is no guarantee that SASB Standards address all sustainability impacts or opportunities associated with a sector, industry, or company, and therefore, a company must determine for itself the topics—sustainability-related or otherwise—that warrant discussion in its SEC filings.

Disclosure under SASB Standards is voluntary. It is not intended to replace any legal or regulatory requirements that may be applicable to user operations. Where such laws or regulations address legal or regulatory topics, disclosure under SASB Standards is not meant to supersede those requirements. Disclosure according to SASB Standards shall not be construed as demonstration of compliance with any law, regulation, or other requirement.

SASB Standards are intended to be aligned with the principles of materiality enforced by the SEC. However, SASB is not affiliated with or endorsed by the SEC or other entities governing financial reporting, such as FASB, GASB, or IASB.

Forward-looking Statements

Disclosures on sustainability topics can involve discussion of future trends and uncertainties related to the registrant's operations and financial condition, including those influenced by external variables (e.g., environmental, social, regulatory, and political). Companies making such disclosures should familiarize themselves with the safe harbor provisions of Section 27A of the Securities Act and Section 21E of the Exchange Act, which preclude civil liability for material misstatements or omissions in such statements if the registrant takes certain steps, including, among other things, identifying the disclosure as "forward-looking" and accompanying such disclosure with "meaningful cautionary statements identifying important factors that could cause actual results to differ materially from those in the forward-looking statements."

Assurance

In disclosing to SASB Standards, it is expected that registrants disclose with the same level of rigor, accuracy, and responsibility as they apply to all other information contained in their SEC filings.

SASB encourages registrants to use independent assurance (attestation); for example, an Examination Engagement to AT Section 101.

Table 1. Sustainability Topics & Accounting Metrics

TOPIC	ACCOUNTING METRIC	CATEGORY	UNIT OF MEASURE	CODE
Materials Efficiency & Recycling	Amount of total waste from manufacturing, percentage recycled	Quantitative	Metric tons (t), Percentage (%)	TR0101-01
	Weight of end-of-life material recovered, percentage recycled	Quantitative	Metric tons (t), Percentage (%)	TR0101-02
	Average recyclability of vehicles sold, by weight ⁷	Quantitative	Percentage (%) by sales-weighted weight (metric tons)	TR0101-03
Product Safety	Percentage of models rated by NCAP programs with overall 5-star safety rating, by region	Quantitative	Percentage (%) of rated vehicles	TR0101-04
	Number of safety-related defect complaints, percentage investigated	Quantitative	Number, Percentage (%)	TR0101-05
	Number of vehicles recalled ⁸	Quantitative	Number	TR0101-06
Labor Relations	Percentage of active workforce covered under collective-bargaining agreements, broken down by U.S. and foreign employees	Quantitative	Percentage (%)	TR0101-07
	Number and duration of strikes and lockouts ⁹	Quantitative	Number, Days	TR0101-08
Fuel Economy & Use-phase Emissions	Sales-weighted average passenger fleet fuel economy, consumption, or emissions, by region	Quantitative	Mpg, L/km, gCO ₂ /km, km/L	TR0101-09
	Number of (1) zero emission vehicles (ZEV) sold, (2) hybrid vehicles sold, and (3) plug-in hybrid vehicles sold	Quantitative	Vehicle units sold	TR0101-10
Materials Sourcing	Percentage of materials costs for items containing critical materials	Quantitative	Percentage (%)	TR0101-11
	Percentage of tungsten, tin, tantalum, and gold smelters and refiners within the supply chain that are verified conflict-free	Quantitative	Percentage (%)	TR0101-12
	Discussion of the management of risks associated with the use of critical materials and conflict minerals	Discussion and Analysis	n/a	TR0101-13

⁷ Note to **TR0101-03** - Disclosure shall include a discussion of the registrant's approach to optimizing vehicle recycling and recovery rates, including participation in mandatory end-of-life of vehicle programs.

⁸ Note to **TR0101-06** - Disclosure shall include a discussion of notable recalls, such as those that affected a significant number of vehicles of one model or those related to a serious injury or fatality.

⁹ Note to **TR0101-08** - Disclosure shall include a description of the root cause of the stoppage, impact on production, and corrective actions taken.

Materials Efficiency & Recycling

Description

The lifecycle environmental impacts of automobiles include impacts during the manufacturing process, the use-phase, and the end-of-life phase. The automobile manufacturing process involves the use of significant amounts of materials (including steel, iron, aluminum, and plastics, among others) and can generate substantial amounts of solid waste (including scrap metal, paint sludge, and shipping materials). In addition, millions of vehicles worldwide reach the end of their useful lives every year. At the same time, the rate of vehicle ownership is expanding globally, which is leading to higher numbers of end-of-life vehicles. Automobile companies can use design innovation as well as process and technological improvements to mitigate these impacts, and achieve material financial benefits. Companies that are innovating and continuing to improve materials efficiency, including reducing waste and reusing or recycling waste and scrapped vehicles in their production processes through vehicle take-back and recycling programs, can contribute to lowering the lifecycle environmental impacts of vehicles and the strain on natural resources from the production of new materials. At the same time, companies can achieve cost savings, generate additional revenues, and protect themselves from regulatory risk and materials supply risks.

Accounting Metrics

TR0101-01. Amount of total waste from manufacturing, percentage recycled

- .01 The amount of total waste from manufacturing shall be calculated in metric tons, where waste is defined as anything for which the registrant has no further use and which is discarded or released to the environment.
- .02 The percentage recycled shall be calculated as the weight of manufacturing waste material that was reused, plus the weight recycled or remanufactured (through treatment or processing) by the registrant, plus the amount sent externally for further recycling, divided by the total weight of waste material, where:
 - Reused materials are defined as those recovered products or components of products that are used for the same purpose for which they were conceived.
 - Recycled and remanufactured materials are defined as waste materials that have been reprocessed or treated by means of production or manufacturing processes and made into a final product or a component for incorporation into a product.
 - The scope of recycled and remanufactured products includes primary recycled materials, co-products (outputs of equal value to primary recycled materials), and by-products (outputs of lesser value than primary recycled materials).
 - Portions of products and materials that are disposed of in landfills are not considered recycled; only the portions of products that are directly incorporated into new products, co-products, or by-products shall be included in the percentage recycled.
 - Materials sent for further recycling include those materials that are transferred to a third party for the express purpose of reuse, recycling, or refurbishment.
 - Materials incinerated, including for energy recovery, are not considered reused or recycled. Energy recovery is defined as the use of combustible waste as a means to generate energy through direct incineration, with or without other waste, but with recovery of the heat.
- .03 The scope of disclosure excludes materials accounted for in TR0101-02.

TR0101-02. Weight of end-of-life material recovered, percentage recycled

.04 The registrant shall disclose the weight, in metric tons, of materials recovered including through mandatory end-of-life vehicle programs, recycling services, voluntary product take-back programs, and refurbishment services.

- The scope of disclosure shall include products, materials, and parts that are at the end of their useful life and would have otherwise been disposed of as waste or used for energy recovery, but have instead been collected.
- The scope of disclosure shall include materials physically handled by the registrant.
- The scope of disclosure shall exclude materials of which the registrant does not take physical possession, but for which it has contracted with a third party the task of collection for the expressed purpose of reuse, recycling, or refurbishment.
- The scope of disclosure excludes vehicles and parts that are in-warranty and subject to recall and that have been collected for repairs.

.05 The percentage recycled shall be calculated as the weight of incoming recovered material that was reused plus the weight of material recycled or remanufactured (through treatment or processing) by the registrant plus the weight of material sent externally for further recycling divided by the total weight of incoming recovered material.

.06 Reused materials are defined as those recovered products or components of products that are used for the same purpose for which they were conceived.

- The scope of reused materials includes products donated and/or refurbished by the registrant or third parties.

.07 Recycled and remanufactured materials are defined as waste materials that have been reprocessed or treated by means of a production or manufacturing process and made into a final product or made into a component for incorporation into a product.

- The scope of recycled and remanufactured products includes primary recycled materials, co-products (outputs of equal value to primary recycled materials), and by-products (outputs of lesser value to primary recycled materials).

.08 The scope of disclosure excludes materials accounted for in TR0101-01.

TR0101-03. Average recyclability of vehicles sold, by weight

.09 The registrant shall disclose the average recyclability of its passenger and light-duty fleet by weight, weighted by the ratio of annual sales of each model to the total sales of all passenger and light-duty models, where:

- The average recyclability percentage is calculated as the total weight of vehicle components and materials that are recyclable, reusable, or able to be remanufactured divided by the total weight of the vehicles.
- Consistent with the E.U. End of Life Vehicle Directive (Annex IIB to Directive 75/442/EEC), a material is recyclable if it can be reprocessed for the original purpose or other purposes, excluding energy recovery. Energy recovery means the use of combustible waste as a means to generate energy through direct incineration, with or without other waste, but with recovery of the heat.

- Vehicle components and materials are recyclable if they can be recycled at a reasonable cost with technology widely available in the markets in which the vehicles are sold.
- .10 The scope of disclosure excludes recoverable material which, consistent with the E.U. End of Life Vehicle Directive (Annex IIB to Directive 75/442/EEC), is defined as material that can be salvaged for further use, including use as a fuel or other means to generate energy.
 - .11 Materials that are typically recyclable include ferrous and non-ferrous metals, glass, and certain plastics.
 - .12 Materials and components that are typically reusable or able to be remanufactured include engines, transmissions, catalysts, tires, batteries, and CFCs.
 - .13 Materials that are typically disposed of as waste or used for energy recovery include fluids, hazardous materials, automotive shredder residue, automotive safety glass, and certain plastics.

Note to **TR0101-03**

- .14 Disclosure shall include a discussion of the registrant's approach to optimizing vehicle recycling and recovery rates, including participation in mandatory vehicle end-of-life programs.
- .15 The registrant shall disclose processes, procedures, and technologies for optimizing vehicle recycling and recovery rates, including in regions where the registrant participates in mandatory vehicle end-of-life programs (e.g., the European Union, Japan, and Korea).
- .16 Relevant measures include, but are not limited to, design-phase efforts (i.e., design for dismantlability and recyclability), partnerships with dismantling and recycling companies, and research and development focused on vehicle recycling technologies.

Product Safety

Description

Driving is a risky activity, as distracted driving, speeding, drunk driving, and dangerous weather conditions, among other factors, can lead to accidents, exposing drivers, passengers, and bystanders to possible injuries and deaths. Accidents can also be caused by defective vehicles, and failure to detect these defects before the vehicles are sold can have significant financial repercussions for auto manufacturers. For example, defective vehicles sold in the U.S. must meet safety requirements or else they must be recalled, and the features that failed to meet requirements must be repaired or replaced at the manufacturer's cost. In addition, manufacturers must provide warranties to insure customers against the risk of purchasing a defective vehicle. Ensuring vehicle safety and responding in a timely manner when defects are identified can protect companies from regulatory action or customer lawsuits, which can affect company profitability through one-time costs and contingent liabilities. Through effective management of the issue, companies can enhance reputation and brand value and drive higher sales over the long term.

Accounting Metrics

TR0101-04. Percentage of models rated by NCAP programs with overall 5-star safety rating, by region

- .17 The registrant shall calculate the percentage as: the number of vehicle models with an overall 5-star New Car Assessment Program (NCAP) rating divided by the total number of vehicle models with an NCAP score.
- .18 The registrant shall disclose this percentage for each geographic region for which it conducts segment financial reporting¹⁰ and which is subject to one of the following NCAPs:
- U.S. National Highway Traffic Safety Administration's (NHTSA) New Car Assessment Program (NCAP) 5-Star Safety Ratings Program
 - European New Car Assessment Programme (Euro NCAP)
 - Japan New Car Assessment Program (JNCAP)
 - Latin New Car Assessment Program (Latin NCAP)
 - The New Car Assessment Program for Southeast Asian Countries (ASEAN NCAP)
 - China New Car Assessment Programme (C-NCAP)
 - Korean New Car Assessment Program (KNCAP)
 - Australia and New Zealand New Car Assessment Program (ANCAP)
- .19 The scope of disclosure excludes vehicle models not rated by the NHTSA or equivalent national authority.
- .20 If few of the registrant's vehicle models (i.e., one or two) are rated in a region, it should disclose this information in order to provide necessary context for the percentage.
- .21 The registrant may choose to discuss its vehicles' use of advanced crash avoidance technologies and features that are not considered as part of NCAP program ratings.

¹⁰ As determined by FASB Accounting Standards Codification Topic 280, *Segment Reporting*

- These technologies and features include, but are not limited to, electronic stability control, lane departure warning, and forward collision warning.

TR0101-05. Number of safety-related defect complaints, percentage investigated

.22 The registrant shall disclose the total number of safety-related defect complaints, where:

- A safety-related defect, as defined by the United States Code for Motor Vehicle Safety (Title 49, Chapter 301), is a problem that exists in a motor vehicle or an item of motor vehicle equipment that (a) poses a risk to motor vehicle safety, and (b) may exist in a group of vehicles of the same design or manufacture or items of equipment of the same type and manufacture.
- The scope of disclosure includes safety-related defect complaints received by the registrant, the NHTSA, or another governmental authority

.23 The registrant shall calculate the percentage of safety-related defect complaints investigated as the total number of safety-related defect complaints that were investigated by the NHTSA or other governmental authority divided by the total number of safety-related defect complaints.

.24 Investigated complaints include any complaint that was investigated by the NHTSA Office of Defects Investigation (ODI) or other governmental authority, including any of the following stages of the investigative process:

- Screening, which is a preliminary review of consumer complaints and other information related to alleged defects to determine whether an investigation should be opened
- Petition Analysis, which is an analysis of any petitions calling for defect investigations and/or reviews of safety-related recalls
- Investigation, which is the investigation of alleged safety defects
- Recall Management, which is the investigation of the effectiveness of safety recalls

.25 A database of safety-related defect complaints received by the NHTSA and investigations initiated is available [here](#).

TR0101-06. Number of vehicles recalled

.26 The registrant shall disclose the total number of vehicle units recalled, the scope of which includes voluntary recalls initiated by the registrant and involuntary recalls mandated by the NHTSA or other relevant government agency.

.27 Involuntary recalls are those required by the NHTSA or other relevant government agency, which are issued when a motor vehicle or an item of motor vehicle equipment does not comply with a Federal Motor Vehicle Safety Standard, or when there is a safety-related defect in the vehicle or equipment.

- A database of NHTSA-initiated recalls is available [here](#).

.28 The registrant may choose, in addition to total vehicle units recalled, to disclose the percentage of recalls that were (1) voluntarily and (2) involuntarily issued.

Note to TR0101-06

.29 The registrant shall discuss notable recalls such as those that affected a significant number of vehicles of one model or those related to serious injury or fatality.

.30 A recall should be considered notable if it mentioned in the NHSTA's [monthly recall reports](#).

.31 For such recalls the registrant should provide:

- Description and cause of the recall issue
- The total number of vehicles recalled
- The cost to remedy the issue (in U.S. dollars)
- Whether the recall was voluntary or involuntary (mandated by NHTSA)
- Corrective actions
- Any other significant outcomes (e.g. legal proceedings, passenger fatalities)

Notes

Definitions:

The National Highway Traffic Safety Administration's New Car Assessment Program (NCAP)'s 5-Star Safety Ratings Program rates rollover resistance in addition to frontal and side crashworthiness beyond what is required by federal law under the Federal Motor Vehicle Safety Standards (FMVSS).

Labor Relations

Description

Organized labor plays an important role in the Automobiles industry. Many workers are covered under collective bargaining agreements that protect worker rights and negotiate wages. Unionization of assembly line workers leaves automobile companies vulnerable to shut downs and delays due to worker strike. Due to the global nature of the industry, auto companies may also operate in countries where worker rights are not adequately protected.

The nuances of both domestic and international worker concerns make management of labor relations critical for automobile companies. Proper management of, and communication around, issues such as worker pay and working conditions can prevent conflicts with workers that could lead to extended periods of strikes, which can slow or shut down operations and create reputational risk. Automakers need a long-term perspective on managing workers, including their pay and benefits, in a way that protects worker rights and enhances their productivity while ensuring the financial sustainability of a company's operations.

Accounting Metrics

TR0101-07. Percentage of active workforce covered under collective-bargaining agreements, broken down by U.S. and foreign employees

.32 The registrant shall indicate the percentage of U.S. employees and the percentage of foreign employees in the active workforce who were covered under collective-bargaining agreements during any part of the fiscal year, where:

- Active workforce is defined as the maximum number of unique employees employed at any time during the fiscal year.
- U.S. employees are defined as employees that do not need a visa to work in the U.S.
- Foreign employees are defined as employees that need or would need a visa to work in the U.S.

TR0101-08. Number and duration of strikes and lockouts

.33 The registrant shall disclose the number of work stoppages and total duration, in worker days idle, of work stoppages involving 1,000 or more workers lasting one full shift or longer.

- Worker days idle is calculated as the product of days idle and number of workers involved.

.34 The scope of disclosure includes work stoppage due to disputes between labor and management, including strikes and lockouts.

Note to **TR0101-08**

.35 The registrant shall describe the reason for each work stoppage (as stated by labor), the impact on production, and any corrective actions taken as a result.

Fuel Economy & Use-phase Emissions

Description

Transportation accounts for a significant share of global greenhouse gas (GHG) emissions. Motor vehicles' combustion of petroleum-based fuels cumulatively generates significant direct GHG emissions and contributes to global climate change. Automobile usage is also associated with local air pollutants that threaten human health and the environment. In this context, vehicle emissions of GHGs, nitrogen oxides, volatile organic compounds, and particulate matter are increasingly of concern to consumers and regulators. While these impacts are further downstream from auto companies (resulting from the use of vehicles rather than their manufacture), regulations are focusing on auto manufacturers to address some of these issues; for example, by imposing fuel economy standards. More stringent emissions standards around the world are driving the expansion of markets for electric vehicles and hybrids, as well as conventional vehicles with high fuel efficiency. Moreover, manufacturers are innovating by designing vehicles made with lightweight materials to improve fuel efficiency by reducing overall vehicle weight. Companies that are able to meet current fuel-efficiency and emissions standards and continue to innovate to meet or exceed future regulatory standards in different markets are likely to strengthen their competitive position and expand market share, while mitigating the risk of reduced demand for conventional products.

Accounting Metrics

TR0101-09. Sales-weighted average passenger fleet fuel economy, consumption, or emissions, by region

.36 The registrant shall disclose the average fuel economy, fuel consumption, or emissions of its passenger and light-duty fleet, weighted for the footprint of vehicles sold.

- Where fleet averages are calculated by model year for regulatory purposes, the registrant shall use these performance data.
- In the absence of regulatory guidance on calculating a fleet average, the registrant shall calculate performance based on the fuel economy of vehicles sold during the fiscal year, weighted by sales volume.

.37 For vehicles sold in the United States, the registrant shall disclose performance based on Corporate Average Fuel Economy (CAFE) calculations and disclose fuel economy for the following vehicle categories:

- Domestic Passenger Cars
- Imported Passenger Cars
- Light Trucks

.38 The registrant shall additionally disclose fleet performance for vehicles sold in geographic regions for which the registrant conducts segment financial reporting¹¹ and which are subject to fleet fuel economy, fuel consumption, or emissions standards, including:

- In grams of CO₂ / kilometer (gCO₂ / km) for (1) passenger cars and (2) light commercial vehicles sold in the European Union.
- In liters of petrol per kilometer (L/km) for passenger vehicles sold in Japan.

¹¹ As determined by FASB Accounting Standards Codification Topic 280, *Segment Reporting*

.39 Disclosure shall be made on a fleet-average basis regardless of whether regulations are based on vehicle weight.

.40 The scope of disclosure shall include all vehicles subject to national passenger vehicle standards.

.41 The registrant may choose to disclose performance in other vehicle segments such as:

- E.U. light commercial vehicles sold in the European Union
- Heavy-duty vehicles in the U.S.
- Cargo vehicles in Japan

TR0101-10. Number of (1) zero emission vehicles (ZEV) sold, (2) hybrid vehicles sold, and (3) plug-in hybrid vehicles sold

.42 The registrant shall disclose the number of vehicles sold during the fiscal year that can be classified as: (1) Zero Emission Vehicles (ZEV), (2) hybrid vehicles, and (3) plug-in hybrid vehicles according to the following definitions:

- Zero emission vehicles (ZEVs) are vehicles driven only by an electric motor that are powered by advanced-technology batteries or hydrogen fuel cell, and have no tailpipe emissions over their entire lifetime under any and all possible operational modes and conditions.
- Hybrid vehicles (hybrid electric vehicle or HEVs) are vehicles that can draw propulsion energy from both of the following on-vehicle sources of stored energy: 1) a consumable fuel and 2) an energy storage device such as a battery, capacitor, or flywheel.
- Plug-In Hybrid Electric Vehicles are vehicles that offer electric driving with an electric motor powered by a large battery pack that is charged by plugging into a source of electricity.

.43 The scope of disclosure includes vehicles sold in all U.S. and foreign markets (i.e., it is not restricted to the California market) such that vehicles meet the above-mentioned requirements.

Notes

Definitions:

Definitions for ZEVs, HEVs, and plug-in hybrid electric vehicles are based on the California Environmental Protection Agency Air Resources Board's [California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles](#), adopted March 22, 2012, and [Facts about California Clean Vehicle Incentives](#), revised February 24, 2014.

Materials Sourcing

Description

Rare earth metals, also known as rare earth elements (REEs), and other critical materials play a crucial role in clean energy technologies. Electric and hybrid vehicles use substantial amounts of critical materials. With global regulations aiming to reduce emissions and increase fuel efficiency of vehicles, the share of hybrids and ZEVs produced by the Automobiles industry is likely to continue to increase in the future. Companies are exposed to the risk of supply chain disruptions, volatility of input prices, and damage to brand reputation, particularly when rare earth or “conflict” minerals and metals are used in their products. The use of minerals that originate in certain zones of conflict also exposes automobile companies to regulatory risks associated with the Dodd-Frank Act. Automobile companies that are able to limit the use of critical and conflict materials, as well as secure their supply, will not only minimize environmental and social externalities related to extraction but also protect themselves from supply disruptions and volatile input prices.

Accounting Metrics

TR0101-11. Percentage of materials costs for items containing critical materials

.44 The registrant shall calculate the percentage as: the materials costs of goods sold, in U.S. dollars, of products that contain critical materials divided by total materials cost of goods sold.

- Materials costs include those for parts, components, and commodities and associated freight and storage and exclude those for overhead, labor, recalls, warranties, or other costs of goods sold.

.45 A critical material is defined as one that is both essential in use and subject to the risk of supply restriction.¹²

.46 At a minimum, the scope of critical materials includes the following minerals and metals:

- Antimony, cobalt, fluorspar, gallium, germanium, graphite, indium, magnesium, niobium, tantalum, and tungsten;
- Platinum group metals (platinum, palladium, iridium, rhodium, ruthenium, and osmium); and
- Rare earth elements, which include yttrium, scandium, lanthanum, and the lanthanides (cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, and lutetium).

TR0101-12. Percentage of tungsten, tin, tantalum, and gold smelters and refiners within the supply chain that are verified conflict-free

.47 The registrant shall calculate the percentage as: the number of tungsten, tin, tantalum, and gold smelters and/or refineries within its supply chain that are verified to be conflict-free divided by the total number of tungsten, tin, tantalum, and gold smelters and/or refineries within its supply chain.

.48 A smelter or refiner is considered to be conflict-free if it can demonstrate compliance with:

- The Electronic Industry Citizenship Coalition (EICC) and Global e-Sustainability Initiatives (GeSI) Conflict-Free Smelter Program (CFSP) assessment protocols

¹² National Research Council. *Minerals, Critical Minerals, and the U.S. Economy*. Washington, DC: The National Academies Press, 2008.

- The Responsible Jewellery Council's (RJC) Chain-of-Custody (CoC) Standard
- Any other due diligence certification, audit, or program that is endorsed by the Automotive Industry Action Group (AIAG), including, but not limited to, the iPoint Conflict Minerals Platform

.49 A smelter or refinery is considered to be within the registrant's supply chain if it supplies tungsten, tin, tantalum, or gold that is contained in any products the registrant manufactures or contracts to be manufactured.

- The scope includes smelters or refineries that supply material directly to the registrant as well as those that supply material to any of its suppliers of raw materials, components, or subassemblies.

TR0101-13. Discussion of the management of risks associated with the use of critical materials and conflict minerals

.50 The registrant shall discuss its strategic approach to managing its risks associated with the usage of critical materials and conflict minerals in its products, including physical limits on their availability, access, and price as well as associated reputational risks.

.51 The registrant should identify which materials and minerals present a risk to its operations, which risk they represent, and the strategies the registrant uses to mitigate that risk.

.52 For critical materials, relevant strategies to discuss include the diversification of suppliers, stockpiling of materials, expenditures in R&D for alternative and substitute materials, and investments in recycling technology for critical materials.

.53 For conflict minerals, relevant strategies to discuss include due diligence practices, supply chain auditing, supply chain engagement, and partnerships with industry groups or non-governmental development organizations (e.g., participation in the AIAG Conflict Minerals Work Group).

SUSTAINABILITY ACCOUNTING STANDARDS BOARD®

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SASB Standard for Automobiles

Example of Integrated Disclosure in Form 10-K

February 18, 2015

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Introduction

The following is a mock excerpt from a Form 10-K for an automobile manufacturer, "Austen-Leigh Motor Corporation," that incorporates disclosure to the SASB Standard for Automobiles into its Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A). This document serves as an example of one type of disclosure SASB envisions for its standards; it is not intended to provide a template for companies to follow. This is a working document on which SASB is actively soliciting feedback on the content, scope, and presentation format of disclosure to SASB Standards. Comments can be made via:

www.sasb.org/contact

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2014

OR

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934**

Commission file number 000-12477

Austen-Leigh Motor Corporation

(Exact name of registrant as specified in its charter)

Michigan

(State or other jurisdiction of
incorporation or organization)

222 Jane St.

Detroit, Michigan

(Address of principal executive offices)

99-999999

(I.R.S. Employer
Identification No.)

48201-1538

(Zip Code)

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Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Sustainability Performance

Overview

After reviewing the Sustainability Accounting Standards Board's (SASB) Sustainability Accounting Standard – Automobiles (TR0101), the Board of Directors of Austen-Leigh Motor Corporation (ALMC) determined that all the disclosure topics identified in the standard are those that may materially affect our financial or operational performance. This section discusses all five of the disclosure topics and is followed by Table 1, which presents an at-a-glance summary of the quantitative metrics. Next Table 2 is presented, which includes "activity metrics" that are measures of the scale of our business activity and may serve as useful normalization factors as well as provide context for the interpretation of our performance on the various environmental and social factors discussed throughout this section.

We at ALMC recognize the growing importance of sustainability performance to our customers, employees, and investors. As a result, we implemented a Sustainability Improvement Program (SIP) in

2010 that covers many environmental, social, and governance issues and related business practices. The results of that program are described throughout this section, as they are relevant.

Materials Efficiency and Recycling

Although we manufacture several aftermarket parts for vehicles, including accessories and service parts, our primary products are passenger cars and light- and heavy-duty trucks. Producing these sophisticated vehicles requires a variety of materials, many of which can be reused, recycled, or remanufactured in order to reduce overall waste and minimize our materials costs. We are committed to reducing the total amount of waste we generate, and of the 203 total facilities we operate, 135 send less than 1 percent of their total waste to landfills. This commitment, and the practices we have implemented as part of it, reflects how highly we value our customers, employees, and the communities in which we operate. Reducing waste and recycling also provide a financial benefit. In 2014, we generated \$983 million in recycling-related revenue and saved an estimated \$320 million on waste disposal and other costs. Our market research indicates we are leading our competitors in generating revenue from our waste reduction efforts.

Manufacturing Waste and Recycling

Our priority is to produce the world's best vehicles while respecting the environment. As such, waste reduction is incorporated into our continuous improvement management process. Managers are rewarded for reducing waste. One division within our research and development group devotes its time to designing new methods by which we can further reduce waste and/or reuse or recycle materials. All of our employees who are involved in manufacturing are encouraged to participate in our waste-reduction program, which asks them, on a quarterly basis, to submit ideas to reduce waste. We recognize and reward all participating employees; we consider all submitted ideas, and we implement those that are feasible.

By its nature, vehicle manufacturing will always require a significant amount of resources. However, our designs, processes, and policies can all ensure we use those resources wisely. The benefits of effective waste management extend beyond reducing disposal costs and generating revenues from the sale of recycled materials. Because materials costs constitute a significant share of our total costs of goods sold any reduction in the amount of wasted material results in direct cost savings. Therefore, efficient use and recycling of materials can help reduce our materials costs as well as overall operating costs. Our ultimate goal is to reduce the total amount of waste we send to landfills to 5 percent by 2030.

Metric	Year Ended December 31,		
	2012	2013	2014
Total waste from manufacturing (in metric tons)	406,973	369,867	353,839
Percentage recycled	82%	85%	86%

End-of-Life Material Recovered and Recycled

We are subject to regulation in some countries that requires us to take back vehicles at the end of their useful lives. We fully comply with all of these regulations. To date, these programs exist in Japan and in many countries within Europe. However, in the future these regulations may expand to other regions in which we operate. We believe that our experience with product stewardship will help us comply any obligations under such regulations, should they be promulgated elsewhere.

In the European Union, we currently meet our end-of-life vehicle (ELV) obligations in two ways: in some areas, we contract recycling and recovery to third parties, and in others we conduct these activities ourselves. In Japan, we fully rely on third parties to meet our ELV obligations and expect to do so in the future. Over time, we plan to expand our vehicle recycling operations in Europe and reduce our use of third parties. We believe that further integrating these operations will help us more efficiently meet our ELV obligations, generate revenue from this business line, and identify ways to reuse or recycle more of the materials included in incoming vehicles, thereby increasing the percentage of vehicles recycled.

Another ongoing SIP program exists at our owned recycling centers in Europe, whereby managers and employees identify reasons for the non-recyclability of materials. The senior managers overseeing these functions meet regularly to identify ways these materials could be reused or otherwise diverted from landfills. The results of these efforts, which are ongoing, are reflected in the increased share of recovered materials beginning in 2012. We believe we can further increase this share, and we see similar rates at some of our competitors. However, we recognize that some of our competitors have achieved higher percentages. We have not yet set a specific goal for the percentage recycled but remain focused on becoming an industry leader in this area.

Metric	Year Ended December 31,		
	2012	2013	2014
Weight of end-of-life material recovered (in metric tons)	2,560,710	2,639,907	2,721,554
Percentage recycled	67%	74%	75%

Recyclability of Vehicles Sold

As noted earlier, we participate in mandatory ELV programs in Europe and Japan. We believe that producer take-back regulations can act as a powerful catalyst to improve the sustainability of our vehicle designs. Although our competitors are also affected by these regulations, we believe that designing and building recyclable vehicles can have financial benefits. Increasing the recyclability of our vehicles can help reduce long-term operating costs and is therefore in the interests of the Company and its shareholders. These cost savings also help offset the costs of complying with the ELV regulations, which can be substantial. To the extent that these regulations proliferate, our operating costs may increase, and our efforts to increase recyclability will become more important.

The recyclability of vehicles depends on vehicle design and construction as well as the available recycling methods. We have engaged in ELV recycling for only a short time, and we therefore continue to rely on standard recycling methods. However, we are continually monitoring progress in this area. As part of our operating agreements with the outsourced recycling centers in Europe and Japan, these centers provide us with quarterly updates on new recycling methods and tools as well as potentially emerging markets for materials that are not yet commonly recycled. We also engage a materials recycling consulting firm to inform us on these same topics. Agreements with the third-party recycling centers and the consulting firm contain provisions under which we agree to pay these firms a bonus for identifying methods that substantially increase the recyclability of our vehicles.

More than half of ALMC vehicles, by weight, are constructed of steel, aluminum, and glass, materials for which a mature recycling already infrastructure exists. Therefore, we are focusing our efforts on identifying ways to increase the recyclability of the materials that are traditionally landfilled, including rubber, urethane foam, resin, and fabric, which together constitute approximately 20 percent of the average vehicle's weight. Recycling methods for some of these materials are not yet fully refined, and recycling methods for others are still in the early stages of development. In addition to our agreements with recycling centers and the consulting firm, we began our own research into developing these methods, which began in 2010 as part of the SIP. To date, that research has not yet produced technologies, processes, or procedures that have moved beyond the pilot stage.

We cannot change the past designs and recyclability of our vehicles, but we work to mitigate the negative effects of producer take-back regulations by improving our future designs to facilitate recycling and re-use. The SIP includes an ongoing program within our design group that encourages, through multiple channels, increased recyclability. Senior managers from throughout the organization present ideas from their divisions to the senior managers at our design center on a quarterly basis. In addition, all designers are required to participate in continuing education courses on sustainable design throughout their careers at ALMC. We also engage the consulting firm mentioned earlier to review our design process for recyclability and report on ways we can improve that process.

It is important to note that the lack of methods to recycle some materials used in vehicle manufacturing affects our competitors and us. To the extent that our efforts to increase the recyclability of these materials materialize, they may help reduce our long-term operating costs.

Metric	Year Ended December 31,		
	2012	2013	2014
Average recyclability of vehicles sold, by weight (sales-weighted, in metric tons)	79%	83%	85%

Product Safety

We understand how important vehicle safety is to our customers and therefore make it a design and manufacturing priority. In addition, our research and development group includes a team devoted to safety-feature development. In 2009, we implemented our Vehicle Safety Improvement Initiative to (VSII) improve our competitive positioning with respect to safety.

Vehicles with Overall 5-Star Safety Ratings

Consumers are increasingly expressing their preference for safer cars by more frequently purchasing those with the highest safety ratings than those with lower ratings. We expect this trend to continue, and we recognize its impact on our financial results. If consumer demand for safer cars outpaces our efforts to increase the number of top-rated vehicles we manufacture, our sales and revenues may decrease. Some of our competitors already offer more top-rated vehicles than we do, and if they are able to continue to expand those offerings, our sales and revenues could decrease.

The sharpened focus on safety resulting from implementation of VSII has so far yielded positive results, with the average rating of cars sold in the U.S. increasing from 3.7 stars in 2009 to 4.2 stars in 2014. However, many consumers will consider only 4-star or 5-star vehicles, and some will consider only 5-star vehicles. Therefore, it is important for us to increase the number of vehicles we manufacture that attain these ratings. Doing so can increase sales, revenue, and the value consumers assign to our brand.

Metric	Year Ended December 31,		
	2012	2013	2014
Percentage of models holding overall 5-star safety rating			
North America	68%	67%	70%
Europe	81%	83%	83%
Australia/New Zealand	54%	54%	57%
Asia	64%	64%	65%
South America*	0%	0%	0%

*Only two of our models are rated in South America.

Safety-Related Defect Complaints

All of the countries in which we sell new vehicles maintain systems for vehicle owners to submit safety complaints to government agencies. We monitor the publicly available information containing these complaints and fully cooperate with any and all governmental investigations. Remediating defects is important to protect the safety of our customers, and preventing defects from occurring is also important to our brand reputation and financial results.

The increased consumer concern for safety may encourage more people to report complaints, an increase that may not necessarily be reflective of the overall safety of ALMC's cars and trucks. Furthermore, consumers may be more likely to pay attention to the safety rating of the car they are considering purchasing than a manufacturer's number of safety-related defect complaints. Still, increases in these numbers could reduce vehicle sales and, in turn, revenues. Therefore, we incorporate available

information from complaints and investigations into our designs for future vehicles and into maintenance recommendations.

In the US the National Highway Traffic Safety Administration (NHTSA) investigates a portion of safety-related complaints, typically if it has received numerous reports of defects or failures affecting a particular vehicle model year or part. Though it is not always the case, the result of this investigative process may be that a safety-related defect exists and that a recall is warranted. Therefore, a high percentage of NHTSA investigations indicates an increased risk that our vehicles may be subject to recall.

Metric	Year Ended December 31,		
	2012	2013	2014
Number of safety-related defect complaints	1,204	1,193	987
Percentage investigated	.4%	.3%	.4%

Recalls

In some cases, safety-related complaints and other incidents result in vehicle recalls. We comply with all vehicle recall orders, as required by law. In 2012 and 2013, the number of vehicles recalled was below our 2000 to 2010 average. However, in 2014, several of our most popular models were subject to two recalls in the U.S. The first recall, which we issued voluntarily, affected 487,000 vehicles due to an ignition switch that would fail to work properly in some cases. This defect prevented the affected vehicles from starting but did not otherwise create safety problems. We estimated that only a small fraction of vehicles containing these potentially defective switches would actually fail to start but issued the recall in order to ensure our customers were not inconvenienced. To remedy the issue, we replaced the ignition switches at a total cost of \$21,915,000.

The second recall, which the National Highway Transportation Safety Administration (NHTSA) mandated, affected 342,000 vehicles due to hydraulic braking systems that could malfunction. When these systems malfunctioned, increased driver effort was required to stop the vehicle, and the vehicle would often travel increased distances before stopping. Remediating this issue involved replacing the hydraulic braking system; this process cost \$98,000,000 in total. In addition, a class action lawsuit was filed by a group of 279 owners of affected vehicles. We cannot comment on the pending lawsuit, but we do not expect its outcome to substantially affect operating results.

We employ several systems in both the design and manufacturing processes, including extensive quality control monitoring, to prevent recalls. Even though the 2014 recalls were an anomaly, we assessed them to identify their root causes and to help prevent future similar incidents. We believe our current quality monitoring and control systems are sufficient, but it is possible that a large recall may occur in the future. Such recalls could result in additional costs to repair or otherwise service affected vehicles. Furthermore, future recalls could reduce vehicle sales and operating revenues, particularly if multiple widespread recalls occur that cause consumers concern about the quality of ALMC vehicles. These concerns could, in turn, cause consumers to purchase vehicles from our competitors rather than from us. In this scenario, the resulting reductions in sales and revenues would likely have a greater effect on our financial results than the recall remediation costs.

Metric	Year Ended December 31,		
	2012	2013	2014
Number of vehicles recalled (in thousands)	572	493	1,234

Labor Relations

Workforce Under Collective-Bargaining Agreements

We highly value all our employees and strive to create and maintain a work environment that attracts the best people. Historically, many assembly-line workers at ALMC and its competitors have belonged to unions, and that remains the case today. In fact, many of our competitors have substantially

similar rates of current union membership. Although the results of our negotiations with these unions are unpredictable, we work to provide employees with competitive wages and benefits in order to reduce the likelihood of conflicts, strikes, and lockouts. Still, it is possible that negotiations may lead to increased costs for ALMC, primarily in the form of higher wages and/or benefits. If these cost increases occur, they may reduce profits.

Metric	Year Ended December 31,		
	2012	2013	2014
Percentage of U.S. workforce covered by collective-bargaining agreements	17%	17%	17%
Percentage of foreign workforce covered by collective-bargaining agreements	31%	31%	31%

Strikes and Lockouts

We cannot prevent every work stoppage, but we attempt to prevent such stoppages, which both indicate employee dissatisfaction and can negatively impact our financial results. Unexpected and/or protracted work stoppages could substantially disrupt manufacturing operations, the main source of ALMC's revenues. We believe our efforts to maintain harmonious labor relations reduce the chances of these kinds of work stoppages, but these efforts do not eliminate the risk of them. That risk may increase for a variety of reasons, and an increased number of work stoppages could cause operating revenues to decline. In addition, the fact that no work stoppages have occurred recently does not necessarily indicate they will not occur in the future.

Metric	Year Ended December 31,		
	2012	2013	2014
Number of strikes and lockouts	0	0	0
Total duration of strikes and lockouts (in worker days idle)	0	0	0

Fuel Economy and Use-phase Emissions

Average Fleet Fuel Economy

All countries in which we sell new vehicles set and enforce fuel efficiency standards, which we adhere to. In many countries, these standards require regular fuel-efficiency increases at set milestones. In making their vehicle-buying decisions, consumers are now placing greater emphasis on fuel efficiency than ever before. Illustrating this trend is the fact that our four most fuel-efficient models have led sales in the U.S., our largest market, since 2011. Some of our major competitors have responded to these consumer preferences very rapidly. To improve our competitive positioning with respect to fuel economy, and as part of the SIP, we have been developing methods to increase fuel efficiency while maintaining performance of all our cars and trucks. To the extent that these efforts result in substantial increases in fuel economy, and improve the appeal of our vehicles, sales and revenues may increase. However, regulations or other forces may significantly increase costs associated with producing vehicles, and it is not possible to predict our ability to pass these costs on to customers. Furthermore, if our competitors are able to accelerate the pace at which they increase the fuel economy of their vehicles, we may experience a decline in sales and revenues.

Governments impose fines for failure to meet mandated fuel economy standards. In the last three fiscal years, we have been charged no fines. That is, all our produced vehicles meet or exceed the mandated fuel economy standards in all regions in which we operate. In fact, we have been charged no fines in the last twelve years. It is possible we may be charged fines in the future, but we work to prevent them. Still, we believe the likelihood of such a fine occurring and the likelihood it would have a material impact on financial results to both be low.

Metric	Year Ended December 31,		
	2012	2013	2014
Sales-weighted average fleet fuel economy, U.S. domestic passenger cars (MPG)	33	34	34.5
Sales-weighted average fleet fuel economy, U.S. light trucks (MPG)	25	26	26.5
Sales-weighted average fleet emissions, E.U. passenger cars (g CO ₂ /km)	134	132	130
Sales-weighted average fleet emissions, E.U. light commercial vehicles (g CO ₂ /km)	190	180	180
Sales-weighted average fleet fuel economy, passenger cars sold in Japan (km/L)	17	17	17.5
Sales-weighted average fleet fuel economy, Australia/New Zealand (L/100 km)	6.9	6.5	6.4
Sales-weighted average fleet fuel economy, Asia (excluding Japan) (km/L)	17	17	17.5
Sales-weighted average fleet fuel economy, South America (MJ/km)	1.8	1.8	1.8

Hybrid and Zero-Emission Vehicles Sold

One way that consumers have expressed their preference for increased fuel economy is through the purchase of hybrid vehicles. In fact, sales of our Austen JA Roadster Hybrid have grown nearly 30 percent in the past three years. That popularity led us to introduce the Austen JA Roadster I, a plug-in hybrid, in 2013. The foundational technology for both of these vehicles was developed through the SIP. To date, we have not introduced a zero-emission vehicle.

Although we expect the popularity of our hybrid models to continue, some risk does exist that a competitor would introduce a highly fuel-efficient vehicle, hybrid or not, that would attract customers and reduce our sales. To mitigate this risk, we continually work to improve the fuel efficiency, the quality, and the set of available features of all Austen JA Roadster Hybrid models. We also continue to improve all these aspects of all our models. Our SIP supports these improvement efforts, especially those related to fuel efficiency. As technological innovations developed through the SIP mature, we plan to apply them across all of our vehicle lines.

It is also possible that crude oil and retail gasoline prices will fall, a trend that could reduce consumer interest in our hybrid models. However, such a trend is not likely to substantially reduce overall demand for vehicles and/or materially affect our financial results.

Metric	Year Ended December 31,		
	2012	2013	2014
Number of zero-emission vehicles (ZEV) sold	0	0	0
Number of hybrid vehicles sold	292,800	314,400	376,800
Number of plug-in hybrid vehicles sold	0	1,400	22,000

Materials Sourcing

Materials Costs for Items Containing Critical Materials

Like our competitors, we use a variety of specialized materials to produce our vehicles. Some of these materials play crucial roles in the production of components, such as electronic systems and hybrid vehicle batteries, and are rare, precious, or otherwise subject to supply-restriction risks. If supply restrictions arise, they may increase our operating costs. As part of our SIP, we are researching and developing ways to use these materials more efficiently and, in some cases, to replace them with more abundant materials that are not subject to the same risks. We have entered into an agreement with an outside firm to license technology that allows us to produce hybrid vehicle batteries using 35 percent less of several critical materials. That agreement also includes a license to use technology that allows us to recover high rates of these materials from vehicles collected at our mandated recycling centers in Europe and Japan.

One of our overarching goals is to operate as efficiently as possible, and one of our long-term objectives is to reduce, to the extent possible, our reliance on these materials. However, it may be difficult to substantially reduce or eliminate this reliance. As such, it is not possible to predict how our costs for these materials may change in the future. Supply disruptions, governmental actions, and/or other factors may constrain supplies, create price volatility, and/or increase these costs. With 12 percent of our materials costs going towards items containing at least one critical material, these events could disproportionately affect our total materials costs and negatively impact our financial results. This percentage has remained essentially stable for the past three years. Still, we are hopeful that our SIP will develop ways to reduce our use of these materials and the financial risks associated with using them.

Metric	Year Ended December 31,		
	2012	2013	2014
Percentage of materials costs for items containing critical materials	11%	11%	12%

Tungsten, Tin, Tantalum, and Gold Smelters and Refiners Verified Conflict-Free

Four materials we use—tungsten, tin, tantalum, and gold (which we collectively refer to as 3TG)—are subject to particular scrutiny because they may be extracted from locations where conflict is widespread, particularly the Democratic Republic of Congo (DRC). As of the 2013 fiscal year, we are required to report to the SEC regarding our use and management of conflict minerals. Prior to that year, we did not actively assess or manage our use of conflict minerals, either at our manufacturing facilities or throughout our supply chain. In 2013, we conducted the first of what is now an annual survey of our suppliers regarding their production and acquisition of parts containing these minerals but did not receive a high number of responses. Throughout 2014, we worked with our suppliers to increase the response rate. Therefore, the data reported below for 2013 is unlikely to reflect the actual rates and more likely to reflect the small number of supplier survey responses.

Prior to the requirement from the SEC, we did not measure the percentage of conflict free smelter or refiners in our supply chain, so the data for 2012 reflects that fact, not that we had no conflict-free verified smelters in our supply chain. It is important to note that many of our direct suppliers have so far been unable to confirm 3TG content and country of origin information in their responses to us. They, in turn, rely on information from their suppliers, all the way through the supply chain. It is possible that a break in the chain of information may occur at any point, and such breaks reduce the total amount of information we receive.

We recognize that not being able to fully trace the origins of 3TG within our supply chain creates both supply chain and regulatory risks. We have not yet set a target date for achieving full supply chain traceability, nor have we set a target date for eliminating 3TG from our supply chain that does not originate from a verified conflict-free smelter. Now, we are assessing how long we are likely to need to achieve the first of these goals. Once that assessment is complete, we expect to set a target date. In future communications to investors and the general public, we will announce the date and describe how we plan to achieve full traceability.

Metric	Year Ended December 31,		
	2012	2013	2014
Percentage of tungsten, tin, tantalum, and gold smelters/refiners in the ALMC supply chain verified conflict-free	0%	4%	7%

Managing the Risks Associated with Using Critical Materials and Conflict Minerals

Many aspects of assessing and mitigating the risks associated with using critical materials and conflict minerals are still emerging. Primarily, however, the risks center on potential supply disruptions, price spikes, and regulatory and reputational risks.

We use a wide variety of critical materials in our products, and it is possible we use a moderate to substantial amount of conflict minerals. The two critical materials most susceptible to supply risk are

dysprosium and neodymium, which we use in both Austen JA Roadster Hybrid models. If the prices of these elements rise substantially, we may have to raise our prices on these and future similar models, and we may not be able to recover those costs by increasing prices to consumers. It is also possible that the governments of the countries where these elements are most abundant may restrict supplies and either significantly reduce or even eliminate our access to these elements.

To mitigate these risks, we have taken the actions described above as part of our SIP. In addition, our research and development group is engaged in several initiatives to reduce our reliance on these critical materials. We have also entered into an agreement with FWD Natural Resources Ltd. in Australia, which owns the rights to significant dysprosium and neodymium deposits. This agreement allows us to purchase a specified amount of both elements through the end of 2019, at which point the agreement may be renewed.

Governments may introduce and/or increase regulations related to the use of these and other critical materials. It is not possible to predict if or when such regulations may be established, but it is possible that such regulations would increase costs of supplies and regulatory compliance. We carefully monitor regulatory trends and engage lobbying firms to ensure our voice is heard on these issues, but these actions are not a guarantee that we will not be affected.

Consumers express more interest today in the origins of the products they buy than they have in the past. To the extent that they engage with the issue of conflict minerals, they may change their buying choices. We believe it is unlikely a large share of consumers would base their vehicle purchasing decisions solely on this criterion; however, it is possible that may occur. In addition, nearly all of our competitors also use materials that may originate in areas of conflict in their production operations. Still, it is in the interest of the Company and its shareholders to continue to increase our understanding of the origins of our inputs and reduce our reliance on these minerals. Doing so is likely to reduce both the associated financial and reputational risks of this reliance.

We are working to gather better information about the origins of our inputs, but the task is challenging for the reasons noted above. We do participate in the Automotive Industry Action Group (AIAG) Conflict Minerals Work Group and are considering forming partnerships with other industry groups. For now, we are increasing our efforts to engage with suppliers on the issue of conflict minerals to improve the response rates to our annual supplier survey. As our suppliers become more aware and better educated about the importance of this issue, we believe that two things will happen: we will receive more comprehensive and accurate information from them on the origins of 3TG, and they will be more likely to consider working more frequently with verified conflict-free smelters. We do not now have a policy in place that mandates suppliers to either provide information or to work only with verified conflict-free smelters.

Table 1. Summary of Quantitative Accounting Metrics

Disclosure Topic	Metric	Year Ended December 31,		
		2012	2013	2014
Materials Efficiency and Recycling	Total waste from manufacturing (in metric tons)	406,973	369,867	353,839
	Percentage recycled	82%	85%	86%
	Weight of end-of-life material recovered (in metric tons)	2,560,710	2,639,907	2,721,554
	Percentage recycled	67%	74%	75%
	Average recyclability of vehicles sold, by weight (sales-weighted, in metric tons)	79%	83%	85%
Product Safety	Percentage of models holding overall 5-star safety rating, North America	68%	67%	70%
	Percentage of models holding overall 5-star safety rating, Europe	81%	83%	83%
	Percentage of models holding overall 5-star safety rating, Australia/New Zealand	54%	54%	57%
	Percentage of models holding overall 5-star safety rating, Asia	64%	64%	65%
	Percentage of models holding overall 5-star safety rating, South America*	0%	0%	0%
	Number of safety-related defect complaints	1,204	1,193	987
	Percentage investigated	.4%	.3%	.4%
	Number of vehicles recalled (in thousands)	572	493	1,234
Labor Relations	Percentage of U.S. workforce covered by collective-bargaining agreements	17%	17%	17%
	Percentage of foreign workforce covered by collective-bargaining agreements	31%	31%	31%
	Number of strikes and lockouts	0	0	0
	Total duration of strikes and lockouts (in worker days idle)	0	0	0
Fuel Economy and Use-phase Emissions	Sales-weighted average fleet fuel economy, U.S. domestic passenger cars (MPG)	33	34	34.5
	Sales-weighted average fleet fuel economy, U.S. light trucks (MPG)	25	26	26.5
	Sales-weighted average fleet emissions, E.U. passenger cars (g CO ₂ /km)	134	132	130
	Sales-weighted average fleet emissions, E.U. light commercial vehicles (g CO ₂ /km)	190	180	180
	Sales-weighted average fleet fuel economy, passenger cars sold in Japan (km/L)	17	17	17.5
	Sales-weighted average fleet fuel economy, Australia/New Zealand (L/100 km)	6.9	6.5	6.4
	Sales-weighted average fleet fuel economy, Asia (excluding Japan) (km/L)	17	17	17.5

Table 1. Summary of Quantitative Accounting Metrics

Disclosure Topic	Metric	Year Ended December 31,		
		2012	2013	2014
	Sales-weighted average fleet fuel economy, South America (MJ/km)	1.8	1.8	1.8
	Number of zero-emission vehicles (ZEV) sold	0	0	0
	Number of hybrid vehicles sold	292,800	314,400	376,800
	Number of plug-in hybrid vehicles sold	0	1,400	22,000
Materials Sourcing	Percentage of materials costs for items containing critical materials	11%	11%	12%
	Percentage of tungsten, tin, tantalum, and gold smelters/refiners in the ALMC supply chain verified conflict-free	0%	4%	7%

*Only two of our models are rated in South America.

Table 2. Activity Metrics

Metric	Year Ended December 31,		
	2012	2013	2014
Number of vehicles produced (in thousands)	9,900	9,974	10,399
Number of vehicles sold (in thousands)	9,881	9,932	10,486