ALCOHOLIC BEVERAGES
Research Brief

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ALCOHOLIC BEVERAGES
Research Brief

SASB’s Industry Brief provides evidence for the disclosure topics in the Alcoholic Beverages industry. The brief opens with a summary of the industry, including relevant legislative and regulatory trends and sustainability risks and opportunities. Following this, evidence for each disclosure topic (in the categories of Environment, Social Capital, Human Capital, Business Model and Innovation, and Leadership and Governance) is presented. SASB’s Industry Brief can be used to understand the data underlying SASB Sustainability Accounting Standards. For accounting metrics and disclosure guidance, please see SASB’s Sustainability Accounting Standards. For information about the legal basis for SASB and SASB’s standards development process, please see the Conceptual Framework.

SASB identifies the minimum set of disclosure topics likely to constitute material information for companies within a given industry. However, the final determination of materiality is the onus of the company.

Related Documents
- Alcoholic Beverages Sustainability Accounting Standards
- Industry Working Group Participants
- SASB Conceptual Framework

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INTRODUCTION

The Alcoholic Beverages industry has long been associated with recreation, growth, and prosperity. The industry includes some of the world’s most recognizable brands, and they have continually succeeded in developing new products to meet shifts in consumer demands and tastes, and in capturing new markets.

However, the emergence of global sustainability issues such as energy management, resource use, and water scarcity has created a new set of opportunities and challenges for the industry. Further, increased concern over the health consequences and social externalities of alcohol consumption and marketing has created challenges for the industry. These issues are integral to the success of companies within the Alcoholic Beverages industry, with potentially significant value impacts.

Management (or mismanagement) of material sustainability issues, therefore, has the potential to affect company valuation through impacts on profits, assets, liabilities, and cost of capital.

Investors would obtain a more holistic and comparable view of performance with alcoholic beverage companies reporting metrics on the material sustainability risks and opportunities that could affect value in the near- and long-term in their regulatory filings. This would include both positive and negative externalities, and the non-financial forms of capital that the industry relies on for value creation.

Specifically, performance on the following sustainability issues will drive competitiveness within the Alcoholic Beverages industry:

- Reducing energy consumption and improving efficiency in operations;
- Managing water use, particularly in areas experiencing water scarcity;
- Ensuring that labeling and marketing requirements are met;
- Improving packaging lifecycle management; and
- Managing environmental and social risks associated with multi-layered supply chains.

INDUSTRY SUMMARY

The Alcoholic Beverages industry includes companies involved with brewing, distilling, and manufacturing various alcoholic beverages, including beer, wine, and liquor.¹

In 2014, the industry had global sales of more than $309 billion.¹ The largest companies include Anheuser-Busch InBev (AB InBev), Heineken, Diageo, Brown Forman, and Vina Concha. The median operating margin for the industry is 15.2%

¹ Industry composition is based on the mapping of the Sustainable Industry Classification System (SICSTM) to the Bloomberg Industry Classification System (BICS). A list of representative companies appears in Appendix I.
percent, and these five top companies generated more than 30 percent of the industry’s total revenue. Breweries represent the largest segment of the industry, followed by distilleries and vintners. The largest companies in the industry operate manufacturing facilities globally, and many of them are headquartered outside the U.S. AB InBev, for example, reports that nearly 66 percent of its revenue is generated outside of the country. Breweries generally have multiple manufacturing facilities to provide access to multiple markets, whereas vintners and distillers are typically located where they have a history of production.

Corporate performance in the Alcoholic Beverages industry is driven by numerous factors, including consumer taste, disposable income, the price of raw ingredients and packaging materials, and the current regulatory environment. The brewing industry has historically benefited from periods when consumers have lower disposable income. Conversely, more expensive products, including wine and liquor, tend to thrive during times of economic prosperity. Age is also a factor. Younger consumers typically purchase more beer, while older consumers buy more liquor and spirits. However, the industry as a whole is susceptible to the economic conditions in the markets where products are sold.

In recent years, the Alcoholic Beverages industry has consolidated significantly. For example, in 2008, the largest U.S.-based beer manufacturer, Anheuser-Busch, was purchased by Belgium brewing company InBev in a deal worth $52 billion. The industry structure is very flat, and horizontal consolidation remains a trend. In the U.S., many states bar alcoholic beverage companies from vertically integrating into distribution and retailing operations, forcing the industry to maintain a three-tier system between producers, wholesale distributors, and retailers. Companies operating in Europe, however, are allowed to vertically integrate.

In the beer segment, large companies are seeing increased competition from private craft breweries, which have taken market share over the past few years. In 2013, this segment represented 7.8 percent of volume in the U.S. beer market, up from 4.4 percent in 2009. Over the last ten years, sales have increased by more than 10.9 percent annually, and craft beer is expected to drive much of U.S. growth over the next five years. Stiff competition from other alcoholic drinks and rising production costs have also contributed to consolidation within this segment of the industry.

Further, as current developed market growth stalls, large beer producers have begun targeting emerging markets, particularly Africa. In 2014, SABMiller announced a $110 million investment in Nigeria, which will expand the capacity of its Onitsha brewery from 700,000 to 2.1 million hectoliters.

For brewers, raw materials represent the most significant cost, an estimated 58 percent of revenue. These costs include packaging materials (i.e. cardboard, glass, and aluminum) and key ingredients (i.e. barley, sugar, malt, and hops). Additional costs include labor, marketing, taxes, and depreciation, rent, and utilities.

In the wine industry, gross margins have been under pressure, dropping from an average of 45.9 percent in 2008 to 40 percent in 2012. However, net profit margins have improved, rising from 10.9 percent in 2008 to 16.8 percent in 2012, in part because the industry has cut costs and large wineries have consolidated. As smaller wineries enter the market, the number of new wineries is expected to increase by 7.8 percent annually until 2019. Small wineries are
able to sell directly to consumers through direct mailing club programs, yet face difficulty expanding operations due to economies of scale and tough competition in larger markets, presenting little threat to large wine producers. The U.S. wine industry has benefited from shifting consumer tastes and growing demand from foreign countries. Between 2009 and 2014, exports grew 10.3 percent annually. This trend is expected to drive wine industry growth of 1.1 percent over the next five years, pushing the industry to $18 billion by 2019. Industry profitability is expected improve over this time, as premium wines will likely drive higher margins.

The distilled liquor industry has remained relatively stable after the recession due to consistent demand for higher quality liquor. This demand is expected to grow over the next five years. As a result, the industry is projected to grow 4.6 percent annually over the next five years to $11.1 billion by 2019. For distilleries, materials including bottles, sugar, grains, and water represent the most significant costs—an estimated 55 percent of industry revenue. These are followed by labor, rent and utilities, and distribution.

A number of factors are crucial to the success of the Alcoholic Beverages industry. These include sufficient access to key ingredients such as water, grains, sugars, and grapes, as well as a strong brand reputation, economies of scale, and use of sustainability best practices. Climate change will likely play a critical role in the Alcoholic Beverages industry, as soil erosion, crop diseases, water scarcity, and flooding can negatively influence the raw ingredients necessary for production, potentially leading to higher costs.

Financial analysis of the Alcoholic Beverages industry focuses on volume of product sold, operating margins, and projected growth in volume. Analysts also consider emerging market growth, foreign currency movements, consumer trends, and weather conditions. As sustainability issues such as energy, water, and responsible drinking initiatives continue to increase in importance, their impact on these value drivers will likely increase.

LEGISLATIVE AND REGULATORY TRENDS IN THE ALCOHOLIC BEVERAGES INDUSTRY

Regulations in the U.S. and abroad represent the formal boundaries of companies’ operations, and are often designed to address the social and environmental externalities that these businesses can create. Beyond formal regulation, industry practices and self-regulatory efforts act as quasi-regulation and also form part of the social contract between business and society. In this section, SASB provides a brief summary of key regulations and legislative efforts related to this industry, focusing on social and environmental factors.

Given its reliance on energy-intensive processes and access to clean water, the Alcoholic Beverages industry is subject to several environmental regulations. Laws including the U.S. Clean Air Act and U.S. Clean Water Act affect the industry and may result in substantial fines for violations. International operations are subject to similar environmental legislation, particularly in areas prone to water scarcity. Further, the industry is likely to experience increasingly stringent regulations in emerging markets. Companies violating these laws and to highlight some ways in which regulatory trends are impacting the industry.
local standards may lose their licenses to operate in key growth markets.

In addition to environmental concerns, the Alcoholic Beverages industry is subject to legislation related to business structure, taxes, age requirements for alcohol consumption, and advertising that aims to reduce related social externalities. These regulations vary widely across different countries and regions. For example, in the United States, most states require a three-tier industry structure that creates a separation between alcohol production, distribution, and sales, prohibiting vertical integration. In Europe and other regions, this separation is not required.

In the United States, the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) is the head regulatory authority and governing body for the Alcoholic Beverages industry, along with the Alcohol and Tobacco Tax and Trade Bureau (TTB). The ATF is responsible for approving labeling, advertising, packaging, and branding of all distilled spirits, wine, and beer sold in the U.S. For example, the ATF recently proposed new regulations to prohibit the use of certain alcoholic beverage containers. The goal is to prevent consumers from confusing alcoholic beverages with other non-alcoholic food products with similar packaging, and to protect young consumers and reduce the likelihood of underage drinking.

The TTB is responsible for collecting alcohol tax revenue and ensuring compliance with alcohol permits, labeling, marketing, and other requirements.

The industry is subject to significant import duties and excise taxes that can vary by both country and state. These taxes are typically based on percentage of alcohol by volume of the product, and are intended to discourage excessive alcohol consumption. For example, Georgia and Florida have the largest excise tax for breweries in the U.S. at 48 cents per gallon, compared to the U.S. average of 20 cents per gallon. These excise taxes can represent a significant portion of a company's total revenue. Diageo, a large spirits producer, paid more than £4.0 billion—or 26 percent—of its 2013 revenue in excise duties.

The Federal Trade Commission (FTC) oversees the advertising and marketing efforts of the Alcoholic Beverages industry, particularly those that may target underage youth. Marketing in foreign countries is also regulated, and those regulations vary widely between borders. For example, television advertising is prohibited in many countries, but it is allowed, though highly regulated, in others like the U.S. If these branding regulations change, they can present material risks or opportunities for the Alcoholic Beverages industry.

The FTC now requires alcoholic beverage advertisers to maintain and collect data around their marketing practices. This data is necessary to assess the effectiveness of the industry’s voluntary guidelines for reducing marketing to underage youth.

Large groups like the World Health Organization are aiming to develop a global strategy to address many of the social externalities created by the misuse of alcoholic beverages. These organizations are seeking collaboration and cooperation from all stakeholders, including individual companies, government regulators, and public health institutions. In order to address many of the social externalities related to alcohol misuse and improve acceptance of alcoholic beverages in society, large producers, including AB InBev and SABMiller, are also voluntarily initiating their own responsible drinking and education programs.
Recognizing the risks and opportunities associated with performance on key sustainability issues, companies in the Alcoholic Beverages industry have partnered with non-alcoholic beverage companies to form the Beverage Industry Environmental Roundtable (BIER). BIER is a technical coalition of leading companies, including Ab InBev, Constellation Brands, Brown-Forman, and SAB Miller, that work together to advance sustainability within the beverage sector. The coalition works to address performance on the following key issues: water, energy and climate, beverage container recycling, sustainable agriculture, and eco-system services.

SUSTAINABILITY-RELATED RISKS AND OPPORTUNITIES

Industry drivers and recent regulations suggest that traditional value drivers will continue to impact financial performance. However, intangible assets such as social, human, and environmental capitals, company leadership and governance, and the company’s ability to innovate to address these issues are likely to increasingly contribute to financial and business value.

Broad industry trends and characteristics are driving the importance of sustainability performance in the Alcoholic Beverages industry:

- **Energy and water intensity**: The industry’s relatively significant use of natural resources creates environmental and social externalities, including indirect greenhouse gas (GHG) emissions, air pollution, and reduced water availability. Fluctuations in the availability and pricing of energy and water can present challenges for alcoholic beverage companies.

- **Global, multi-layered supply chains**: Demand for ingredients and inputs from the Alcoholic Beverages industry can magnify the social and environmental externalities of its supply chain. Management of the supply chain needs to focus on mitigating these impacts, or companies risk production disruptions, community opposition, and increased regulatory costs.

- **Responsible drinking**: The industry is highly reliant on its social license to operate, as its products are linked with many negative social externalities, including illness and premature death. Addressing these externalities is crucial to strengthening the industry’s license to operate, and to maintain or expand operations.

- **Packaging lifecycle**: The consumption of alcoholic beverages results in billions of containers entering the waste stream, creating a significant environmental externality. Addressing the resources needed to manufacture these containers and the way in which they are disposed can reduce costs and enhance brand value.

As described above, the regulatory and legislative environment surrounding the Alcoholic Beverages industry emphasizes the importance of sustainability management and performance. Specifically, recent trends suggest a regulatory emphasis on responsible marketing and prevention of underage drinking, which will serve to align the interests of society with those of investors.

The following section provides a brief description of each sustainability issue that is likely to have material implications for companies in the Alcoholic Beverages industry. This includes an
explanation of how the issue could impact valuation and evidence of actual financial impact. Further information on the nature of the value impact, based on SASB’s research and analysis, is provided in Appendix IIA and IIB.

Appendix IIA also provides a summary of the evidence of investor interest in the issues. This is based on a systematic analysis of companies’ 10-K and 20-F filings, shareholder resolutions, and other public documents, which highlights the frequency with which each topic is discussed in these documents. The evidence of interest is also based on the results of consultation with experts participating in an industry working group (IWG) convened by SASB. The IWG results represent the perspective of a balanced group of stakeholders, including corporations, investors or market participants, and public interest intermediaries.

The industry-specific sustainability disclosure topics and metrics identified in this brief are the result of a year-long standards development process, which takes into account the aforementioned evidence of interest, evidence of financial impact discussed in detail in this brief, inputs from a 90-day public comment period, and additional inputs from conversations with industry or issue experts.

A summary of the recommended disclosure framework and accounting metrics appears in Appendix III. The complete SASB standards for the industry, including technical protocols, can be downloaded from www.sasb.org. Finally, Appendix IV provides an analysis of the quality of current disclosure on these issues in SEC filings by the leading companies in the industry.

ENVIRONMENT

The environmental dimension of sustainability includes corporate impacts on the environment. This could be through the use of natural resources as inputs to the factors of production (e.g., water, minerals, ecosystems, and biodiversity) or environmental externalities and harmful releases in the environment, such as air and water pollution, waste disposal, and GHG emissions.

Alcoholic beverage companies use large amounts of natural resources including water and energy to transform ingredients into finished beverage products. The use of these natural resources may create environmental externalities that lead to both tangible risks and opportunities for beverage producers. For example, the heavy reliance on water as a key input to value creation has led to external pressures in the form of water supply disruptions and threats to licenses to operate in water-stressed regions. Management of specific environmental capitals may provide the industry with opportunities to improve efficiency, thereby lowering operating costs as well as preventing significant one-off costs or impacts on long-term growth opportunities from disruptions to the social license to operate.

Energy Management

Companies in the Alcoholic Beverages industry rely on both purchased electricity and on-site energy generation as a critical input for value creation. Fossil fuel and electrical energy consumption can contribute to environmental impacts, including climate change and pollution. These impacts have the potential to indirectly affect the results of operations of alcoholic

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This section does not cover key ingredients in a company’s agricultural supply chain, which can in itself create significant risks. This is covered later under Environmental & Social Impacts of Ingredient Supply Chains.
beverage companies. Sustainability factors—such as increasing GHG emissions regulation, incentives for energy efficiency and renewable energy, and risks associated with nuclear energy and its increasingly limited license to operate—are leading to increases and volatility in the price of conventional electricity sources while making alternative sources cost-competitive. Therefore, it is becoming increasingly important for companies to manage their overall energy efficiency, their reliance on different types of energy and the associated risks, and their access to alternative energy sources.

Companies in the Alcoholic Beverages industry are recognizing the risk of rising energy costs in production. These risks are particularly important if companies are not able to pass increased costs on to consumers. By focusing on energy efficiency, companies can mitigate their exposure to rising or volatile energy costs. Alcoholic beverage producers may be able to further reduce such risks by diversifying their energy portfolios across a range of sources, improving long-term returns for investors.

Company performance in this area can be analyzed in a cost-beneficial way through the following direct or indirect performance metrics (see Appendix III for metrics with their full detail):

- Total energy consumed, percentage grid electricity, percentage renewable.

Evidence

The extent to which companies in the Alcoholic Beverages industry rely heavily on both purchased electricity and on-site generation is illustrated by looking at input costs for each segment of the industry. For breweries, purchased fuel and purchased electricity account for 1.85 and 1.87 percent of input costs, respectively. For wineries, these percentages are 0.54 and 1.45 percent, and for distilleries, 1.21 and 0.91 percent respectively. Although there is significant variation in energy use across different segments of the industry, companies are directly exposed to price volatility and to the potential for rising costs.

In its fiscal year FY2014 20-F filing, AB InBev reports “[t]he production and distribution of our products require material amounts of energy, including the consumption of oil-based products, natural gas, biomass, coal and electricity... High energy prices over an extended period of time, as well as changes in energy taxation and regulation in certain geographies, may result in a negative effect on operating income and could potentially challenge our profitability in certain markets.” Constellation Brands reports in its FY2014 10-K filing that “[o]ur future operating expenses and margins will be dependent on our ability to manage the impact of cost increases. We cannot guarantee that we will be able to pass along increased energy costs or increased costs associated with environmental regulatory compliance to our customers through increased prices.”

According to the most recent data available, breweries in the U.S. spend more than $200 million on energy per year. These companies typically purchase 56 percent of their energy needs as electricity, and generate the remaining by using fossil fuel sources, including natural gas and oil. For companies like SABMiller and AB InBev, which rely on natural gas as their primary fuel for onsite generation, fluctuations in the price of this commodity could have a significant impact on operations.

Recognizing the risks and opportunities associated with energy consumption and other sustainability issues, companies in the Alcoholic Beverages industry joined with peers in the Non-
Alcoholic Beverages industry to launch the BIER.

BIER is a technical coalition of leading companies—including Brown-Forman, Heineken, Carlsberg Group, and AB InBev—that work together to advance environmental sustainability within the beverage sector. Given that retailers, distributors, and consumers are increasingly demanding sustainable manufacturing, the coalition recognizes energy and climate as key focus areas. Further, because of the potential for climate change legislation, BIER is working to develop proactive strategies to help companies reduce their energy consumption and related GHG emissions.

As a result of collaborative and independent work, companies in the industry have begun to set energy efficiency and GHG emissions targets. AB InBev set a 2017 goal to reduce energy use by 10 percent per hectoliter of production from 2013 levels. Through its current energy efficiency programs, the company has saved a cumulative $110 million since 2009, and more than $31 million in 2013 alone. SABMiller set a goal to reduce direct emissions by 50 percent by 2020 from 2008 baseline levels. Through its current efficiency programs, which include both water and energy, the company estimates it is saving more than $90 million every year.

Rising costs, potential savings, and potential regulation are also leading companies to move their energy portfolios away from fossil fuels and into more renewable energy sources.

Alcohol production creates by-products that can be used to generate energy from biogas made in anaerobic digesters. Diageo invested £6 million in an anaerobic digester at a Scottish distillery, which allows the company to utilize draff (grain residue) and pot ale condensate to generate biogas. This program will supply the site with 40 percent of its total energy needs and reduce GHG emissions by five percent. In 2013, the company generated 9.8 percent of its direct energy usage from renewable sources, up from less than one percent in 2011. Similarly, SABMiller invested $1.5 million in a one-megawatt biogas cogeneration plant to help power its Irwindale, California brewery. The net cost of the project was $474,040 after state rebates, and it generates annual costs savings of nearly $1 million.

Value Impact

Energy management could have ongoing impacts on company value and operating costs, either through continuing reductions in energy use or growth in energy consumption due to overall increases in beverage production. These costs are of particular concern for the industry, given that companies are not always able to pass costs along to consumers. Further, companies that do not address this issue may experience capital expenditures in the future to retrofit manufacturing facilities in order to improve energy efficiency.

As energy prices are expected to rise, alcoholic beverage companies that develop more energy-efficient methods of production can benefit from significant cost reductions and gain a competitive advantage. Through process improvements and the use of alternative energy, companies could mitigate operating risks that arise from fluctuations in fossil fuel and electricity prices. Decisions to purchase electricity or generate it on-site can also impact a company’s exposure to reliability issues and operational risks.

The probability and magnitude of financial impacts from this issue are likely to increase over time as increasingly stringent environmental regulation and fossil energy resource constraints lead to volatile and rising energy prices.
Although the cost of energy is captured in financial results, a company’s overall energy mix can give insight into its level of internalization of the growing environmental impact of energy consumption. Active energy management can also reduce a company’s risk profile and its cost of capital in light of volatile electricity prices and supply risks, particularly for companies with global operations that include emerging markets. The use of renewable energy indicates a company’s ability to mitigate its environmental footprint and exposure to increases in energy costs.

**Water Management**

Water management—direct water usage and exposure of company operations to water scarce regions—is a growing area of concern for companies in the Alcoholic Beverages industry.

These companies use a large amount of water in their operations, as they combine carbonated or non-carbonated water with raw ingredients to create finished alcoholic products. Because of their heavy reliance on access to a large volume of clean water, alcoholic beverage companies may be exposed to disruptions that could significantly impact operations and add to costs. Companies operating in water-stressed regions that fail to address local water concerns may face further risk of losing their social license to operate.\(^4\)

While water has typically been a freely available and abundant commodity in many parts of the world, it is becoming a scarce resource. This is due to increasing consumption from population growth and rapid urbanization and, potentially, climate change. Furthermore, water pollution can render water supplies unusable or expensive to treat. Based on recent trends, researchers estimate that by 2025, important river basins in the U.S., Mexico, Western Europe, China, India, and Africa will face severe water problems as demand overtakes renewable supplies. Many important river basins are already considered “stressed.” Water scarcity can result in higher supply costs, supply disruptions, and social tensions, which companies across different industries, particularly water-intensive ones, will need to contend with.\(^40\)

Company performance in this area can be analyzed in a cost-beneficial way through the following direct or indirect performance metrics (see Appendix III for metrics with their full detail):

- Total water withdrawn and total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress; and
- Discussion of water management risks and description of management strategies and practices to mitigate those risks.

**Evidence**

According to MSCI ESG research, brewers and distillers and vintners currently rank third and fourth among the industries most exposed to water risk in direct and indirect operations, behind only the Independent Power and Water Utility industries.\(^41\) Water use varies across countries and by the type of alcoholic beverage being produced. While roughly 89 percent of total water use in beer is indirect—from harvesting key ingredients such as hops and barley—the industry still uses a significant amount of water in direct operations.\(^42\) In 2013, AB InBev used more than 38.6 billion gallons of water in direct operations,\(^43\) enough to satisfy risks. This is covered later under Environmental & Social Impacts of Ingredient Supply Chains.

\(^4\) This issue does not cover water scarcity in a company’s agricultural supply chain, which can in itself create significant

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New York City’s total water usage for more than 38 days. 44

Alcoholic beverage companies acknowledge the importance of water management, as water is a major ingredient in the majority of the industry’s products. 45 As a result, companies continue to implement water efficiency and reduction goals to lower costs, enhance long-term operations, and avoid supply disruptions. 46 In their SEC filings, companies including AB InBev, Ambev, 47 Constellation Brands, 48 and Diageo 49 disclose the significance of having sufficient access to large quantities of high quality water for operations. In its FY2013 Form 20-F, AB InBev stated that “we also face water scarcity risks. The availability of clean water is a limited resource in many parts of the world, facing unprecedented challenges from climate change and the resulting change in precipitation patterns and frequency of extreme weather, overexploitation, increasing pollution, and poor water management. As demand for water continues to increase around the world, and as water becomes scarcer and the quality of available water deteriorates, we may be affected by increasing production costs or capacity constraints, which could adversely affect our business and results of operations.” 50

In its FY2014 Form 20-F, Diageo reported, “[w]e and our stakeholders recognize that water stewardship is the most material aspect of our environmental strategy. This year, 23 of our sites, producing about one third of Diageo’s packaged volume, were designated as being located in areas which are water-stressed, which means they have a higher water supply risk.” 51

AB InBev performs annual water risk assessments across its breweries and manufacturing facilities. In 2013, the company identified that 10 percent of its operations were located in highly water scarce regions, according to the water-risk assessment tool provided by the World Resources Institute. 52 The company is subsequently looking to engage in watershed protection programs in facilities located in key brewing regions around the world, including South America, China, and the United States. 53

In addition to assessing exposure, companies are increasingly focusing on water use efficiency and performance disclosure in their corporate sustainability reports. AB InBev has set a goal to reduce total water usage to an industry-leading 3.2 hectoliters of water per hectoliter (hl) of production by 2017, and disclosed this as a key strategy in its FY2013 Form 20-F. 54 In 2014, the company reported that its water usage was 3.23 hl/hl of production, representing a 3.6 percent decrease from the previous year. AB InBev indicates that this is equivalent to the amount of water needed to make more than 4 billion cans of its product, and that the reduction has resulted in savings of more than $12 million since 2012. 55 SABMiller estimates that it will save more than $90 million annually from its water and energy efficiency programs, representing significant ongoing cost savings for the company. 56

Recent examples from both the Non-Alcoholic and Alcoholic Beverages industries demonstrate the potential impact that failures to manage water resources can have on companies. In June 2014, a Coca-Cola bottling plant in India was shut down due to non-compliance with a local community’s water use policies. 57 During Diageo’s Q4 2013 earnings conference call, the company said that its brewery in Accra, Ghana was unable to access water due to a lack of supply. The company was forced to truck in water, which “materially increased” its costs and depressed margins in its Africa segment. 58 The Africa, Eurasia, and Pacific segment is one of the largest and fastest growing segments for Diageo,
highlighting the importance of addressing water scarcity issues in these markets.59

Companies will likely face increasing regulation and costs associated with water use as governments seek to impose water taxes or caps, which could materially influence company sales and operations. For example, in 2011, Ukraine introduced a 65 percent water tax increase that significantly raised costs and lowered sales in the region for AB InBev.60 In response to prolonged drought conditions in California, farmers have agreed to reduce water consumption by 25 percent.61 This reduction will be achieved through increased efficiencies or by leaving land unplanted, and demonstrates the potential for significant changes in agricultural practices and the availability of crops that the industry has relied on. In its FY2014 Form 10-K, Constellation Brands, a company that owns vineyards in California, reported that “severe weather events, such as the recent drought in California and prolonged cold winter in New York, and climate change may negatively affect agricultural productivity in the regions from which we presently source our various agricultural raw materials. Decreased availability of our raw materials may increase the cost of goods for our products.” 62

Value Impact

Alcoholic Beverage companies face increasing risks associated with water supply shortages. Operations located in water-scarce and stressed regions may face significant disruptions that could force companies to curb or cease production, leading to an impact on market share and revenue growth. Further, water intensive operations in regions with water scarcity can lead to social and political unrest, which can affect a company’s reputation and license to operate. This, in turn, can increase its risk profile and ultimately the cost of capital. Investment into process innovation and water conservation technologies can reduce companies’ water use and improve operational efficiency, resulting in substantial cost savings for companies over time.

Although water has historically been inexpensive, costs are gradually expected to rise across the globe due to the increasing water scarcity mentioned earlier. Therefore, the probability and magnitude of the financial impact of water management in the Alcoholic Beverages industry are likely to increase in the near term. Disclosure on a company’s operation exposure to areas of water scarcity and strategies to can provide insight into a company’s risk exposure and its ability to manage this critical input for value creation.

SOCIAL CAPITAL

Social capital relates to the perceived role of business in society, or the expectation of business contribution to society in return for its license to operate. It addresses the management of relationships with key outside stakeholders, such as customers, local communities, the public, and the government. It includes issues around public health, responsible business practices in marketing, and customer safety.

Alcohol misuse and underage drinking can cause negative social externalities. Alcoholic beverage companies can play a role in limiting such externalities through responsible drinking and marketing efforts that engage key stakeholders. Such efforts may improve the industry’s social license to operate and limit government involvement, which can influence industry profitability.
Responsible Drinking & Marketing

The irresponsible consumption of alcoholic beverages can lead to negative social externalities such as drunk driving, addiction, public health issues, underage drinking, and even death. Every year, irresponsible alcohol consumption contributes to millions of deaths worldwide, a large portion of which includes underage youth and young adults. The harmful use of alcohol is a growing concern, particularly in developing countries that do not have laws to protect against alcohol’s detrimental effects. Many companies and organizations are recognizing these risks to society as well as the company’s operations if the harmful use of alcohol is not addressed.

Alcoholic beverage companies may be forced to internalize the costs of these social externalities through taxes, lawsuits, or reputational harm, which can have a material impact on operations and financial results. Failing to properly manage social externalities may lead to further detrimental regulation and erode the industry’s social license to operate.

Through education, engagement, community partnerships, and responsible marketing, particularly to underage citizens, industry participants can address and mitigate many of the social externalities associated with alcohol misuse. While such efforts may need to be collective to have positive impacts that cannot be fully captured by individual beverage companies, participation in such efforts can contribute to a positive brand perception, protecting the ability to operate and sell in different regions and enhancing consumer demand. Individual companies’ advertising and marketing efforts may come under particular regulatory and customer scrutiny if such efforts are perceived as targeting underage drinkers or encouraging irresponsible drinking behavior.

Company performance in this area can be analyzed in a cost-beneficial way through the following direct or indirect performance metrics (see Appendix III for metrics with their full detail):

- Number of advertising impressions, percentage made on individuals above the legal drinking age;
- Notices of violations received for non-conformance with industry and regulatory marketing and/or labeling codes;
- Amount of legal and regulatory fines and settlements associated with labeling and/or marketing practices; and
- Description of efforts to promote responsible consumption of alcohol.

Evidence

Alcoholic beverage companies continue to face scrutiny due to the impact their products can have on the health of consumers, particularly those who are young. Companies recognize in their SEC filings that shifting industry perceptions and brand reputation affect societal acceptance of alcoholic beverages and pose a material risk to sales. Alcoholic beverage companies are particularly aware of the potential for litigation that seeks to address these concerns. For example, in its FY2014 Form 20-F, AB InBev reports that “companies in the alcoholic beverage industry and soft drink industry are, from time to time, exposed to collective suits (class actions) or other litigation relating to alcohol advertising, alcohol abuse problems or health consequences from the excessive consumption of beer, other alcoholic beverages, and soft drinks. As an illustration, certain beer and other alcoholic beverage producers from Brazil, Canada, Europe, and the United States have been involved in class
actions and other litigation seeking damages for, among other things, alleged marketing of alcoholic beverages to underage consumers. If any of these types of litigation were to result in fines, damages, or reputational damage for us, this could have a material adverse effect on our business, results of operations, cash flows, or financial position.”

According to the World Health Organization, in 2004 more than 320,000 people between the ages of 15 and 29 died from alcohol-related causes. Underage consumption has also been found to result in increased dependency on alcohol in adulthood, increased risk of illicit drug use, injury, and numerous other health effects. Despite these risks, young people are often the focus of advertising strategies. A 2014 study published in the Journal of Studies on Alcohol and Drugs found that people between the ages of 18 and 20 were the segment most exposed to alcohol advertising in magazine ads. Further, the study found that current self-regulatory standards might not be enough to protect youth.

As a result of previous lawsuits and stakeholder pressure, many companies have stopped the practice of advertising to young consumers and are currently participating in efforts to reduce underage drinking. Nonetheless, companies in the industry face financial risk associated with advertising practices.

In October 2008, Ambev, Brazil’s largest brewer, and two other brewing companies faced a $2.4 billion lawsuit filed by the Brazilian Federal Prosecutor Office and other consumer protection associations. The suit claimed that alcohol damages individual and public health, and that advertising campaigns lead to further societal damages and encourage underage drinking. Although the case is still being deliberated—and is relatively unique—it highlights the potential for legal action relating to the negative social externalities associated with the Alcoholic Beverages industry.

The harmful use of alcohol across all age groups is responsible for nearly four percent of deaths and 4.5 percent of diseases around the world, leading to significant regulatory risks for companies in the industry. For example, in 2012, Russia banned the sale of beer between 11:00 pm and 8:00 am, and also prohibited beer advertisements on television, the Internet, printed media, radio, and outdoor signs. Further, the country increased excise taxes nine times between 2009 and 2014 from $0.07 per liter to $0.32 per liter.

Large multilateral organizations like the World Health Organization are developing a global strategy to address many of these alcohol-related health issues, and have called for a 10 percent reduction in the harmful use of alcohol, within national contexts between 2013 and 2020. They are seeking collaboration and cooperation from all stakeholders, including individual companies, government regulators, public health institutions, and other key players to establish minimum drinking ages and restrictions on sales and advertising.

In corporate sustainability reports, many alcoholic beverage companies discuss their role in addressing the social externalities their products can create. Companies including Diageo, AB InBev, and SABMiller support the World Health Organization’s global strategy to reduce the harmful use of alcohol. Under this plan, companies will report annually and be audited by a third party to help achieve the following goals:

- Reduce underage drinking;
- Strengthen and expand marketing codes of practices;
• Provide consumer information and responsible product innovation;
• Reduce drinking and driving; and
• Enlist the support of retailers to reduce harmful drinking.77

In its FY2014 Form 20-F Diageo reports that “harm related to alcohol misuse is our most important social issue. Supporting programmes that promote a positive role for alcohol in society, addresses risks such as: harm to consumers and communities; reputational damage; limitations to our licence to operate; and the loss of trust and respect from our stakeholders around the world.”

Similarly in its FY2013 Form 20-F, AB InBev includes a section on its Better World responsible drinking agenda, highlighting the company’s progress and efforts on this issue. The company disclosed that more than 145 million adults have engaged with its programs that help parents talk with children about underage drinking. Through efforts to improve responsible beverage sales, the company has also worked with more than 450,000 bars and trained more than 228,000 bartenders, servers, and clerks. In 2011 and 2012 alone, the company invested more than $112 million in responsible drinking and advertising programs.78

Furthermore, the company provided updates on its Better World agenda in its Q3 2013 earnings call with investors. The company mentioned the launch of a “first-ever online forum of responsible drinking,” which featured more than 20 experts and 200 participants and discussion topics around preventing drunk driving and underage drinking.79

Value Impact

By promoting responsible drinking and marketing practices to address many of the social externalities associated with alcohol misuse, the Alcoholic Beverages industry can strengthen its social license to operate. These actions may also allow the industry to more effectively navigate and avoid costly government regulation.

Government and legal action against companies with poor practices around this issue is likely to have a negative impact on reputation, and lead to a long-term deterioration of brand value. This could further result in a loss of market share for poorly performing companies and weaken their risk profile with a long-term impact on cost of capital.

Companies can also avoid costly litigation by adopting responsible marketing practices, particularly by ensuring that underage people are not targeted by advertising. Litigation and regulation can result in significant one-off costs, increased liabilities, and the potential for divestment risk.

As the regulatory environment around the issue becomes more stringent, the probability and magnitude of financials impact on companies in the industry is likely to increase. Disclosure on advertising impressions, notices of violations for non-conformance with industry codes, fines, and efforts to promote the responsible consumption of alcohol can demonstrate exposure to regulation and litigation, and management’s ability to address these concerns and to limit social externalities.

BUSINESS MODEL AND INNOVATION

This dimension of sustainability is concerned with the impact of environmental and social factors on innovation and business models. It addresses the integration of environmental and social factors in the value-creation process of companies, including resource efficiency and other
innovation in the production process. It also includes product innovation and efficiency and responsibility in the design, use-phase, and disposal of products. It includes management of environmental and social impacts on tangible and financial assets—either a company’s own or those it manages as the fiduciary for others.

Emerging environmental and social trends, along with more stringent regulatory requirements and scrutiny of the disposal of beverage containers and packaging, are creating new innovation and business opportunities for the industry. The beverage industry currently produces billions of disposable containers that end up in landfills, creating environmental externalities. Industry participants are using innovative solutions to address the impacts from their packaging, resulting in improved operating efficiency and long-term brand value.

Packaging Lifecycle Management

Packaging materials represent a significant cost to companies in the Alcoholic Beverages industry. Performance on this issue represents both risks and opportunities that are likely to be material. Although the majority of alcoholic beverage manufacturers do not manufacture their own bottles and packaging, they face the reputational risks associated with the negative externalities that their products’ containers can create. Companies in this industry are also directly impacted by legislation regarding end-of-life management of beverage containers, particularly extended producer responsibility laws. Alcoholic beverage companies therefore have an incentive to work with packaging manufacturers to improve the environmental characteristics of their products.

In the design phase, material choice can help drive consumer demand, lower environmental impacts, and mitigate end-of-life regulation risk. Further, efforts to reduce the amount of materials used in packaging can reduce transportation costs, exposure to supply and price volatility, and the amount of virgin materials extracted. In the end-of-life phase, take-back and recycling programs and partnerships can preempt regulation and help achieve cost savings and reduced environmental impact.

Company performance in this area can be analyzed in a cost-beneficial way through the following direct or indirect performance metrics (see Appendix III for metrics with their full detail):

- Total weight of packaging, percentage made from recycled or renewable materials, and percentage that is recyclable or compostable; and
- Description of strategies to reduce the environmental impact of packaging throughout its lifecycle.

Evidence

Alcoholic beverages are sold in different types of containers, and the materials used in those containers determine environmental impacts and recycling rates. An estimated 37 percent of the nearly 243 billion beverage containers sold annually in the U.S. are recycled and diverted away from landfills. In the U.S., as of 2011, aluminum cans, glass containers, and plastic bottles were recycled at rates of 54.5 percent of weight by total weight generated, 34.2 percent, and 29.2 percent, respectively. Although these rates have increased over time, the need to produce new beverage packaging results in a significant amount of energy consumption, GHG emissions, pollution, and billions of dollars in wasted material.
In an effort to address these negative externalities, several states—including California and New York—have established container deposit legislation. Container deposits increase recycling rates by requiring consumers to pay a small deposit for each beverage container, then refunding that deposit when the container is returned for recycling. Companies recognize that this type of legislation or other forms of extended producer responsibility laws could impact their financial performance.82

In an effort to reduce both costs and environmental externalities associated with packaging waste, companies continue to engage with retailers, consumers, and associations to improve their packaging recycling rates. For example, Diageo partnered with a local cooperative in Brazil to increase the recycling infrastructure for its glass bottles. The cooperative diverted more than 1,300 tons of glass away from regional landfills and was recognized by the American Chamber of Commerce ECO Awards.83

Companies are working to reduce their packaging materials through innovative design and technology. These efforts can reduce costs and enhance competitiveness. Companies across the industry recognize the price volatility and supply shortages of packaging materials in their SEC Filings.84 Constellation Brands, a large producer of distilled spirits and wine, states in its FY2013 Form 10-K that packaging materials are the largest cost component in beverage production, representing significant opportunities for cost savings.85

In an effort to reduce packaging weight, Heineken partnered with French packaging specialist Eco-Emballages to design a lighter beer bottle that uses 20 percent less material. This new bottle will help save more than 6,000 tons of glass and 5,000 tons of CO₂ emissions annually for the Despadros beer line. Heineken plans to roll out the new bottle to markets including the U.S., Brazil, and Vietnam.86 Diageo has undertaken similar package light-weighting initiatives. The company set a goal of reducing packaging weight by 10 percent from its 2009 baseline to generate costs savings and reduce emissions associated with transportation by 2015. As of 2014, the company had achieved a six percent reduction.87

In 2013, AB InBev invested more than $100 million in a new aluminum bottling plant that would allow the company to reduce the weight of its 16-ounce cans by 40 percent, reducing materials by more than 9,200 tons per year and eliminating 80,500 tons of CO₂ emissions. The company was also able to reduce glass use by nearly 14,000 tons, equivalent to more than 77,000,000 standard glass bottles.88

These efforts can yield considerable savings, as demonstrated by the closely related non-alcoholic beverages industry. For example, Coca-Cola’s light-weighting efforts have helped the company save more than $180 million over a two-year period.89

**Value Impact**

Companies that account for the lifecycle environmental impacts of alcoholic beverage containers will be better positioned to avoid or effectively mitigate impacts of costly end-of-life or recycling legislation, which can lead to increased product prices, decreased competitiveness, and a higher cost of revenue.

Collaboration with packaging partners in order to develop innovations in materials technology as well as materials-efficient containers can provide beverage producers with opportunities to address environmental concerns. This strategy could
simultaneously capture cost savings by reducing materials usage and improving transportation efficiencies, increasing operating margins and thus profitability. Through such innovations and business model improvements, companies can also reduce exposure to volatile prices and supply of commodity materials used in packaging, which could lower their cost of capital.

As extended producer responsibility and end-of-life regulations become more stringent and the public becomes increasingly concerned about environmental issues, the probability and magnitude of material financial impacts on companies from the packaging lifecycle is likely to increase in the future.

The magnitude of these impacts and the degree to which companies are proactively managing the associated risks and opportunities can be understood by analyzing current sourcing practices and efforts to reduce the associated environmental impacts.

### LEADERSHIP AND GOVERNANCE

As applied to sustainability, governance involves the management of issues that are inherent to the business model or common practice in the industry and are in potential conflict with the interest of broader stakeholder groups (government, community, customers, and employees). They therefore create a potential liability, or worse, a limitation or removal of license to operate. This includes regulatory compliance, lobbying, and political contributions. It also includes risk management, safety management, supply chain and resource management, conflict of interest, anti-competitive behavior, and corruption and bribery.

Alcoholic beverage companies recognize the value of their supply chains and are focusing on efforts to ensure that raw ingredients and the people who produce them are protected from environmental and social concerns. Specifically, companies are engaging with suppliers to address water scarcity, climate change, threats to specific crops, and labor standards. By engaging with suppliers, companies will limit their exposure to potential price fluctuations in raw ingredients and potential disruptions in supply. By mitigating operational and reputational risks, companies managing their supply chains to improve availability of key raw ingredients can gain competitive advantage over the long term.

### Environmental & Social Impacts of Ingredient Supply Chains

Environmental and social impacts can occur within the ingredient supply chains of alcoholic beverage companies. Companies rely on numerous ingredients—including grains, corn, sugarcane, wheat, barley, hops, and various fruits—that are highly susceptible to price volatility, largely due to environmental factors such as shifting weather patterns, droughts, and crop disease. As the impacts of climate change and water scarcity continue to increase in frequency and severity, shifts in the price and availability of these key ingredients are likely to rise. Further, the environmental impacts that the supply of these ingredients can create, including pollution, soil erosion, and deforestation, are likely to lead to additional price and supply volatility.

The potential for supply shortages or disruptions due to social considerations, including labor violations, child labor, fair wages, and food shortages present further risk to a company’s long-term ability to source key materials and ingredients. Such considerations could also present reputational impacts for companies, with a potential to influence consumer demand.
While many of these companies do not have direct control over farming practices, they have the ability to influence and improve agricultural conditions by engaging with suppliers and farmers and implementing innovations in agricultural technology. These efforts can help companies address issues such as climate change impacts and water scarcity in their supply chain.

Company performance in this area can be analyzed in a cost-beneficial way through the following direct or indirect performance metrics (see Appendix III for metrics with their full detail):

- Percentage of beverage ingredients sourced from regions with High or Extremely High Baseline Water Stress;
- Suppliers’ social and environmental responsibility audit conformance: major non-conformance rate and associated corrective action rate and minor non-conformance rate and associated corrective action rate; and
- List of priority beverage ingredients and discussion of sourcing risks due to environment and social considerations.

Evidence

In their SEC filings, companies across the Alcoholic Beverages industry discuss the importance of environmental and social factors in their supply chains.90 Disclosures address their reliance on agricultural commodities that are susceptible to price fluctuations and supply shortages resulting from water scarcity, climate patterns, natural disasters, and diseases. Further, companies are increasingly describing responsible sourcing policies and partnerships that seek to ensure that suppliers follow fair labor standards.

In its FY2014 Form 20-F filing, AB InBev reported on risks from climate change that “In the event that such climate change has a negative effect on agricultural productivity, we may be subject to decreased availability or less favorable pricing for certain agricultural commodities that are necessary for our products, such as barley, hops, sugar, and corn.”91

The environmental aspects of supply chain management have become of increasing concern for investors. In Constellation-Brands’ Q4 2014 quarterly earnings call, CEO Robert Sands addressed investors’ inquiries into the company’s exposure to drought issues in California. Mr. Sands said that “it is too early to call” what the potential impacts will be, but noted the company could source ingredients elsewhere if necessary.92 In its Q4 2014 quarterly earnings call, SABMiller also discussed the U.S. drought’s influence on grain prices during its 2014 fiscal year, noting that the drought negatively impacted the company’s commodity prices and offset much of the benefits gained from operational efficiencies.93

Agriculture accounts for a majority of worldwide fresh water consumption. In Organization for Economic Cooperation and Development countries, agricultural water withdrawals account for 44 percent of freshwater use, while in developing nations it is closer to 90 percent.94 Nearly 89 percent of the water used to make alcoholic beverages goes to cultivating ingredients; therefore, alcoholic beverage companies have a vested interest in ensuring their ingredient supply chains can withstand issues like water scarcity.95 Further discussion and disclosure around a company’s exposure to water-stressed regions in its ingredient supply chain may provide investors with better information with which to assess a company’s risk exposure to such issues, relative to their peers.

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While many alcohol producers do not grow their own ingredients, they engage and influence their suppliers to improve their farming methods, or they can select suppliers with sustainable methods of water and farm management. For those companies that do not buy directly from farmers, they can select companies that maintain strong sourcing practices. Supplier engagement can be beneficial for both farmers and beverage producers. For example, SABMiller’s Water Futures Partnership with the World Wildlife Fund (WWF) attempts to address water use across its entire supply chain from seed to pub. The brewer has engaged with local grain farmers in India—a country dependent on stable precipitation—even with farmers they do not purchase grain from, to improve their farming techniques and use less water, which can help ensure a sustainable supply for the region and for local breweries.96

AB InBev collaborated with an Idaho barley farmer to shift production to the winter season to improve yields. This shift allowed the crop to use more naturally occurring moisture from rain and snow, allowing the farmer to use 20 percent less water while producing significantly higher yields and reducing costs.97 Additionally, Molson Coors Brewing Company has adopted an Agricultural Brewing Ingredients Policy that aims for the company to source ingredients from suppliers that meet its quality, safety, and sustainability standards. The policy mandates that suppliers “adopt agricultural practices that will strive to maintain soil fertility, water resources, air quality, and biodiversity” and “[m]anage resources in an efficient manner.”98

In addition to working with suppliers to manage environmental concerns, alcoholic beverage companies in this industry have the opportunity to use their influence to address social issues within their supply chain. This can, in turn, contribute towards the resiliency of their source of ingredients and enable companies to address evolving consumer preferences and capture more market share. According to the International Labour Organization, there are 168 million children between the ages of 5 and 17 engaged in child labor.99 Of these, nearly 59 percent are involved in the agricultural sector. Among the agricultural products associated with child labor, cocoa and sugar are both found in certain alcoholic beverages.100 As consumer awareness of this issue continues to increase, companies in this industry may be subject to scrutiny. Peers in related industries have started to address this issue through enhanced supply chain monitoring. For example, Nestlé responded to stakeholder pressure relating to its supply chain by establishing a child labor monitoring and remediation system for its cocoa supply chain.101

In addition, peers in related industries are increasingly recognizing the value of third party supply chain certifications. For example, fair trade aims to empower family farmers and workers around the world to ensure that producers in developing countries achieve better trade and work conditions, enabling them to educate their children and support community development. In recent years, several independent distilleries have offered fair trade certified products.102

Alcoholic beverage companies are increasingly developing partnerships with outside groups to further address the social impacts of their supply chain. SABMiller has partnered with WWF to create its Better Barley, Better Beer program. This initiative allows the company to work directly with farmers to improve the profitability and social impact of their farms, without impacting food availability. The company plans to source 90 percent of its barley in South Africa locally through this program.103
In their 2014 Sustainable Development Report, SABMiller further describes their approach to their supply chain: “[t]he Supplier Code of Conduct and Sustainable Development Standards, which were launched in 2012, are now applicable to all our suppliers globally. They cover the protection of human rights and labour standards, transparency and business ethics, and environmental impacts. We are members of SEDEX, the Supplier Ethical Data Exchange, and AIMPRESS, a forum of leading FMCG [fast moving consumer goods] companies that aims to enable and promote responsible sourcing practices and sustainable supply chains. A total of 655 suppliers are now registered with SEDEX, representing a 36 percent year-on-year increase.”

In its FY2014 Form 20-F, Diageo summarizes its relationship with suppliers and the importance to its long-term value of engaging with them on social and environmental impacts, stating that “[b]eond upholding high standards across our whole supply chain, we are particularly keen to foster broader partnerships with agricultural suppliers, since the long term prosperity of our business is closely linked with our ability to work with farmers in ways that are sustainable, secure, and mutually beneficial. To this end, we have continued actively using local raw materials like sorghum and cassava, which are more resilient and better adapted to their local climates. We also focus on sourcing locally. For example, we have a target of sourcing 70 percent of agricultural materials locally across Africa (including Nigeria, Ghana, Cameroon, Kenya, Uganda, Tanzania, Ethiopia, and South Africa) by the end of 2015.”

Value Impact

Investors and third party organizations are raising awareness about potential environmental and social issues in alcoholic beverage firms’ supply chains. Companies can benefit from addressing these concerns in order to preserve or engender a positive brand identity. Failure to effectively manage supply chain externalities has the potential to result in price increases or supply constraints of key inputs and lost revenue due to disruptions in production. In the long term, supply chain constraints negatively affect a company’s risk profile and, therefore, cost of capital.

While many of these companies do not have direct control over the cultivation practices of key ingredients, they have the ability to influence and improve agricultural conditions by engaging with farmers and implementing innovations in agricultural technology. These efforts can help alcoholic beverage companies address issues such as climate change and water scarcity in their supply chain. Since the impacts of climate change and water scarcity are likely to increase in severity and frequency in the medium and long-term, the measurement of exposure to these issues and a discussion of strategies to mitigate them can help determine which companies are best positioned to protect the availability of key ingredients and to maintain steady cost of sales. Specifically, disclosure on the percentage of ingredients sourced from water-stressed regions can help identify the level of risk within a supply chain and a company’s ability to withstand environmental changes. Further discussion of other environmental and social issues in the supply chain can help determine additional challenges that could affect the price and availability of key ingredients, in addition to how reputational risks are managed.
APPENDIX I
FIVE REPRESENTATIVE ALCOHOLIC BEVERAGE COMPANIES

<table>
<thead>
<tr>
<th>COMPANY NAME (TICKER SYMBOL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anheuser-Busch InBev (BUD)</td>
</tr>
<tr>
<td>Ambev (ABEV)</td>
</tr>
<tr>
<td>Diageo (DEO)</td>
</tr>
<tr>
<td>Brown-Forman (BF/A)</td>
</tr>
<tr>
<td>Vina Concha (VCO)</td>
</tr>
</tbody>
</table>

This list includes five companies representative of the Alcoholic Beverages industry and its activities. This includes only companies for which the Alcoholic Beverages industry is the primary industry, companies that are U.S.-listed but are not primarily traded over the counter, and for which at least 20 percent of revenue is generated by activities in this industry, according to the latest information available on Bloomberg Professional Services. Retrieved on April 14, 2015.
## APPENDIX IIA

### EVIDENCE FOR SUSTAINABILITY DISCLOSURE TOPICS

<table>
<thead>
<tr>
<th>Sustainability Disclosure Topics</th>
<th>EVIDENCE OF INTEREST</th>
<th>EVIDENCE OF FINANCIAL IMPACT</th>
<th>FORWARD-LOOKING IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HM (1-100)</td>
<td>IWGs</td>
<td>EI</td>
</tr>
<tr>
<td>Energy Management</td>
<td>33</td>
<td>75</td>
<td>3t</td>
</tr>
<tr>
<td>Water Management</td>
<td>75*</td>
<td>94</td>
<td>1</td>
</tr>
<tr>
<td>Responsible Drinking &amp; Marketing</td>
<td>89*</td>
<td>81</td>
<td>2</td>
</tr>
<tr>
<td>Packaging Lifecycle Management</td>
<td>58*</td>
<td>69</td>
<td>4</td>
</tr>
<tr>
<td>Environmental &amp; Social Impacts of Ingredient Supply Chains</td>
<td>67*</td>
<td>88</td>
<td>3t</td>
</tr>
</tbody>
</table>

**HM:** Heat Map, a score out of 100 indicating the relative importance of the topic among SASB’s initial list of 43 generic sustainability issues. Asterisks indicate “top issues.” The score is based on the frequency of relevant keywords in documents (i.e., 10-Ks, 20-Fs, shareholder resolutions, legal news, news articles, and corporate sustainability reports) that are available on the Bloomberg terminal for the industry’s publicly listed companies. Issues for which keyword frequency is in the top quartile are “top issues.”

**IWGs:** SASB Industry Working Groups.

**%:** The percentage of IWG participants that found the disclosure topic likely to constitute material information for companies in the industry. (-) denotes that the issue was added after the IWG was convened.

**Priority:** Average ranking of the issue in terms of importance. 1 denotes the most important issue. (-) denotes that the issue was added after the IWG was convened.

**EI:** Evidence of Interest, a subjective assessment based on quantitative and qualitative findings.

**EFI:** Evidence of Financial Impact, a subjective assessment based on quantitative and qualitative findings.

**FLI:** Forward-looking Impact, a subjective assessment of the presence of a material forward-looking impact.
## APPENDIX IIB
### EVIDENCE OF FINANCIAL IMPACT FOR SUSTAINABILITY DISCLOSURE TOPICS

<table>
<thead>
<tr>
<th>Evidence of Financial Impact</th>
<th>Revenue &amp; Expenses</th>
<th>Assets &amp; Liabilities</th>
<th>Risk Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Revenue</td>
<td>Operating Expenses</td>
<td>Non-operating Expenses</td>
</tr>
<tr>
<td></td>
<td>Market Share</td>
<td>New Markets</td>
<td>Pricing Power</td>
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<tr>
<td>Energy Management</td>
<td></td>
<td></td>
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<tr>
<td>Water Management</td>
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<td>•</td>
<td>•</td>
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<tr>
<td>Responsible Drinking &amp; Marketing</td>
<td>•</td>
<td></td>
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</tr>
<tr>
<td>Packaging Lifecycle Management</td>
<td>•</td>
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<tr>
<td>Environmental &amp; Social Impacts of Ingredient Supply Chains</td>
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<td>•</td>
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</tbody>
</table>

**MEDIUM IMPACT**  **HIGH IMPACT**
## APPENDIX III

### SUSTAINABILITY ACCOUNTING METRICS | ALCOHOLIC BEVERAGES

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>ACCOUNTING METRIC</th>
<th>CATEGORY</th>
<th>UNIT OF MEASURE</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Energy Management</strong></td>
<td>Total energy consumed, percentage grid electricity, percentage renewable</td>
<td>Quantitative</td>
<td>Gigajoules (GJ), Percentage (%)</td>
<td>CN0202-01</td>
</tr>
<tr>
<td><strong>Water Management</strong></td>
<td>(1) Total water withdrawn and (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress</td>
<td>Quantitative</td>
<td>Cubic meters (m³), Percentage (%)</td>
<td>CN0202-02</td>
</tr>
<tr>
<td></td>
<td>Discussion of water management risks and description of management strategies and practices to mitigate those risks</td>
<td>Discussion and Analysis</td>
<td>n/a</td>
<td>CN0202-03</td>
</tr>
<tr>
<td><strong>Responsible Drinking &amp; Marketing</strong></td>
<td>Number of advertising impressions, percentage made on individuals above the legal drinking age</td>
<td>Quantitative</td>
<td>Number, Percentage (%)</td>
<td>CN0202-04</td>
</tr>
<tr>
<td></td>
<td>Notices of violations received for non-conformance with industry and regulatory marketing and/or labeling codes*</td>
<td>Quantitative</td>
<td>Number</td>
<td>CN0202-05</td>
</tr>
<tr>
<td></td>
<td>Amount of legal and regulatory fines and settlements associated with labeling and/or marketing practices**</td>
<td>Quantitative</td>
<td>U.S. Dollars ($)</td>
<td>CN0202-06</td>
</tr>
<tr>
<td></td>
<td>Description of efforts to promote responsible consumption of alcohol</td>
<td>Discussion and Analysis</td>
<td>n/a</td>
<td>CN0202-07</td>
</tr>
<tr>
<td><strong>Packaging Lifecycle Management</strong></td>
<td>(1) Total weight of packaging, (2) percentage made from recycled or renewable materials, and (3) percentage that is recyclable or compostable</td>
<td>Quantitative</td>
<td>Metric tons (t), Percentage (%)</td>
<td>CN0202-08</td>
</tr>
<tr>
<td></td>
<td>Description of strategies to reduce the environmental impact of packaging throughout its lifecycle</td>
<td>Discussion and Analysis</td>
<td>n/a</td>
<td>CN0202-09</td>
</tr>
<tr>
<td><strong>Environmental &amp; Social Impacts of Ingredient Supply Chains</strong></td>
<td>Percentage of beverage ingredients sourced from regions with High or Extremely High Baseline Water Stress</td>
<td>Quantitative</td>
<td>Percentage (%) by spend</td>
<td>CN0202-10</td>
</tr>
<tr>
<td></td>
<td>Suppliers’ social and environmental responsibility audit conformance: (1) major non-conformance rate and associated corrective action rate and (2) minor non-conformance rate and associated corrective action rate</td>
<td>Quantitative</td>
<td>Rate</td>
<td>CN0202-11</td>
</tr>
<tr>
<td></td>
<td>List of priority beverage ingredients and discussion of sourcing risks due to environmental and social considerations</td>
<td>Discussion &amp; Analysis</td>
<td>n/a</td>
<td>CN0202-12</td>
</tr>
</tbody>
</table>

* Note to CN0202-05—Disclosure shall include discussion of notices of violation that resulted in an enforcement action(s), excluding fines and settlements as disclosed in CN0202-06.

** Note to CN0202-06—Disclosure shall include a description of fines and settlements and corrective actions implemented in response to events.
APPENDIX IV: Analysis of SEC Disclosures | Alcoholic Beverages

The following graph demonstrates an aggregate assessment of how representative U.S.-listed Alcoholic Beverage companies are currently reporting on sustainability topics in their SEC annual filings.

![Graph showing type of disclosure on sustainability topics for Alcoholic Beverages]

**Alcoholic Beverages**

- Energy Management: 75%
- Water Management: 94%
- Responsible Drinking & Marketing: 81%
- Packaging Lifecycle Management: 69%
- Environmental & Social Impacts of Ingredient Supply Chains: 88%

*IWG Feedback*

*Percentage of IWG participants that agreed topic was likely to constitute material information for companies in the industry.*
REFERENCES

1 Bloomberg Professional service, accessed April 14, 2015, using the BICS <GO> command. The data represents global revenues of companies listed on global exchanges and traded over-the-counter (OTC) from the Alcoholic Beverages industry, using Levels 3 and 4 of the Bloomberg Industry Classification System.

2 Author’s calculation based on data from Bloomberg Professional service, accessed on April 14, 2015, using Equity Screen (EQS) for U.S.-listed companies and those traded primarily OTC that generate at least 20 percent of revenue from their Non-Alcoholic Beverages segment and for which Non-Alcoholic Beverages is a primary SICS industry.

3 Anheuser-Busch InBev FY 2014 Form 20-F for the Period Ending December 31, 2014 (Filed on March 24, 2015), p. 27.


6 Ibid, p. 15.


15 Ibid. p. 10.


17 Ibid. p. 21.


19 Based on a SASB internal review of sell-side research.


28 “Global strategy to reduce the harmful use of alcohol,” World Health Organization, p. 3.


41 * ESG Issue Report: Executive Summary: Water Upstream and Downstream Impacts from a Well Running Dry,* MSCI ESG Research, last modified September 2013.


52 Anheuser-Busch InBev, 2013 Global Citizenship Report, p. 27.


54 Ibid.


58 Diageo, Q4 2013 Earnings Call, July 301, 2013.
Data from Bloomberg Professional service accessed on July 11, 2014, using DEO FA GEO <GO> command. The data represents financial information for the company’s 2013 fiscal year.


* Global Strategy to Reduce the Harmful Use Of Alcohol,* World Health Organization, p. 4.


* Global Strategy to Reduce the Harmful Use Of Alcohol,* 2011 World Health Organization, p. 5.


* Global Strategy to Reduce the Harmful Use Of Alcohol,* 2011 World Health Organization, p. 5.


* Global Strategy to Reduce the Harmful Use Of Alcohol,* World Health Organization, p. 3.


Anheuser-Busch InBev, 2013 Global Citizenship Report, p. 11


Anheuser-Busch InBev, Q3 2013 Earnings Call, October 31, 2013


Constellation Brands Inc., FY2013 Form 10-K for the Period Ending February 28, 2014 (filed on April 29, 2014), p.6..


92 Constellation Brands Inc., Q4 2014 Earnings Call, April 9, 2014.
93 SABMiller, Q4 2014 Earnings Call, May 22, 2014.
100 Ibid, p. 11.
104 Ibid, p. 17.