FOOD RETAILERS & DISTRIBUTORS
Research Brief

SASB’s Industry Brief provides evidence for the disclosure topics in the Food Retailers & Distributors 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
- Food Retailers & Distributors Sustainability Accounting Standards
- Industry Working Group Participants
- SASB Conceptual Framework

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INTRODUCTION

Food retailers and distributors provide a crucial service to society by delivering affordable foods, beverages, and household products to consumers at conveniently located markets. In the 20th century, the industry’s advances in distribution efficiency and refrigeration helped facilitate society’s rapid evolution from a largely rural agrarian system to an advanced industrial economy. With the continued rise of the global middle class, the industry is likely to experience further growth and increasing demand for high-value food items.

Regulatory and societal trends indicate rising concern over the nutritional attributes and the health impacts of food products, as well as the growing importance of the environmental and social externalities that occur in retail operations and the supply chain. The use of energy and chemical refrigerants at retail facilities and in distribution fleets generate greenhouse gas (GHG) emissions that contribute to climate change, while food waste can have implications on food security and operational resource efficiency. Given the industry’s direct influence over consumers’ food options, issues of product quality, health attributes, and labeling integrity are powerful sustainability drivers of financial performance. Furthermore, key sustainability issues including climate change, water scarcity, animal welfare, and fair labor practices affect the industry through its supply chain, underscoring the importance of product selection and supplier management.

Management (or mismanagement) of certain 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 Food Retailers & Distributors companies reporting metrics on the 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 Food Retailers & Distributors industry:

- Reducing emissions of refrigerants that contribute to global warming and ozone depletion;
- Managing energy consumption in retail and distribution spaces;
- Improving food stocking and inventory management to reduce food waste;

SUSTAINABILITY DISCLOSURE TOPICS

ENVIRONMENT
- Air Emissions from Refrigeration
- Energy & Fleet Fuel Management
- Food Waste Management

SOCIAL CAPITAL
- Data Security
- Food Safety
- Product Health & Nutrition
- Product Labeling & Marketing

HUMAN CAPITAL
- Fair Labor Practices

LEADERSHIP AND GOVERNANCE
- Management of Environmental & Social Impacts in the Supply Chain
• Protecting personal consumer data as cyber-attacks grow in frequency and sophistication;
• Ensuring food quality and safety;
• Adapting to an increasing consumer preference for healthier and more nutritious products;
• Ensuring accurate and lawful marketing practices;
• Ensuring fair labor practices and cultivating an inclusive workspace; and
• Managing sustainability risks within the food supply chain, including climate change adaptation and minimizing environmental and social externalities from food production, packaging, and transportation.

INDUSTRY SUMMARY

The Food Retailers & Distributors industry consists of companies that operate retail and warehouse supermarkets, liquor stores, bakeries, natural food stores, specialty food stores, and seafood stores and that manage distribution centers and transportation fleets. Companies may specialize in one type of store format or have facilities that contain multiple formats. Products sold include fresh meat and produce, prepared foods, processed foods, baked goods, frozen and canned foods, non-alcoholic and alcoholic beverages, and a wide selection of household goods and personal care products.1

Food retailers typically source merchandise from food manufacturers, including agricultural producers and processed foods companies, and sell directly to consumers. Wholesalers generally purchase merchandise from food manufacturers and sell to retail food stores or directly to consumers at wholesale outlets.1 Food distributors operate large warehouses that include cold storage facilities. They also may own or lease transportation fleets to deliver goods to retail stores. Such fleets include refrigerated units to keep perishable goods fresh during storage and transit.2

The Food Retailers & Distributors industry generates approximately $2 trillion in annual revenue globally, while the distributors segment contributes nearly $380 billion, or 18 percent of the total.3 The majority of sales from publicly listed companies and those traded over the counter occur in North America, and some companies operate globally. Most sales by U.S.-listed firms occur in the U.S., Canada, and Mexico. Merchandise is imported and produced domestically. For example, approximately half of the produce sold in the U.S. is imported, while only 1 percent of the red meat sold is imported.4 Store-branded products sold by many food retailers are manufactured either in company-owned manufacturing facilities or by third-party manufacturers. In general, retailers do not operate their own manufacturing facilities, however there are exceptions, notably Kroger Co.5 Food retail establishments are typically distributed according to population density.6

The majority of food retailers’ merchandise is staple consumer goods, for which demand is relatively constant throughout the business cycle. Therefore, revenue volatility is generally low. Since household disposable income and product prices are key demand drivers, higher-value items such as seafood and organic foods experience greater demand volatility. Lower consumer

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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.
Disposable income tends to shift demand away from higher-value items toward lower-cost options.

The Food Retailers & Distributors industry is mature and characterized by mounting competition and consolidation. Traditional supermarkets face competition from discount retailers, convenience stores, dollar stores, and warehouse club stores. According to the U.S. Department of Agriculture (USDA), the share of household expenditures captured by traditional food retailers reached an all-time low in 2012. Supercenters and warehouse clubs such as Walmart and Costco, dollar stores, and convenience stores have garnered nearly 50 percent of the food retail market, in large part by offering lower prices, greater food selection, and expanded offerings of fresh and organic products. \(^7\) In response to intensifying competition, some traditional food retailers are expanding market share through acquisitions. For example, in 2014, Safeway Inc. merged with Albertsons, creating a retailer with more than 2,400 stores, second in size to Kroger Co., which was the leading U.S. supermarket company. \(^8\)

Many of the industry’s products are homogeneous, increasing the relative importance of price, quality, and service as competitive drivers. Traditional grocers, which sell a full line of produce, meats, groceries, and household goods, have enlarged their product variety and quality, including by introducing prepared foods, organic foods, more fresh foods and products with non-synthetic ingredients. Companies have also added in-store cafés, loyalty programs, and other services to increase foot traffic. \(^9\) The rise in prepared and fresh food offerings on-site increases the importance of food safety. Besides traditional grocery establishments, other common store formats include fresh (which emphasizes produce), organic, ethnic, natural foods, and warehouse (which focuses on low prices and bulk sales). \(^10\) In recent years, industry growth has been driven largely by niche segments, including natural and organic foods. \(^11\) Sales of organic foods in the U.S. rose from approximately $13 billion in 2005 to an estimated $35 billion in 2014. \(^12\) Growing disposable incomes and increasing consumer preference for healthier, more natural foods are the primary drivers of the trend. \(^13\)

Food retail and distribution is a low-margin business. \(^14\) Merchandise purchases and labor costs represent approximately 75 percent and 10 percent of industry revenues, respectively. Cost of utilities, including electricity and heating fuel, totals approximately 4 percent of revenues. \(^15\) Gross margins are closely related to the inflation of purchase prices, as measured by the producer price index, and sale prices, as measured by the consumer price index. For companies with significant overseas sales, currency fluctuations can affect operating margins significantly. \(^16\) At retailers and wholesalers alike, fierce price competition and narrow margins make sales volume an important determinant of profitability, along with product shrink (inventory loss) and labor costs. \(^17\) The median net income margin for the industry in fiscal year (FY) 2014 was 2 percent, while the median gross margin was approximately 21 percent. \(^18\)

Companies in the industry are typically valued based on financial multiples including price-to-earnings and enterprise value. Sales per square

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\(^8\) Walmart and Costco are part of SICs CN0403 Multiline and Specialty Retailers & Distributors industry, as they sell a wide variety of products and services, including groceries.
foot and same-store sales are common metrics used to analyze sequential sales performance. Growth in a company’s different sales departments, such as natural foods and produce, may also be analyzed.²

LEGISLATIVE AND REGULATORY TRENDS IN THE FOOD RETAILERS & DISTRIBUTORS 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 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. SASB also describes self-regulatory efforts on the part of the industry, which could serve to mitigate the impacts of further regulation.³

Existing and emerging federal, state, and local regulations in the U.S. have key business and sustainability impacts in the Food Retailers & Distributors industry. In particular, legislation relating to environmental concerns, food safety and nutrition, and product labeling influence the industry’s sustainability issues and their impact on financial performance.

Environmental Regulation

The U.S. Environmental Protection Agency (EPA) develops and enforces environmental protection legislation. For food retailers and distributors, the environmental regulations with the greatest potential financial impacts relate to air emissions and food waste.

Direct emissions from the use of specific refrigeration chemicals occur as a result of leaks and accidental releases during the normal course

² This section does not purport to contain a comprehensive review of all regulations related to this industry but is intended to highlight some ways in which regulatory trends are impacting the industry.
of business. Once released into the atmosphere, these substances can have a substantial environmental impact, as some of these chemicals are potent GHGs that contribute to climate change, while others contribute to ozone depletion.\textsuperscript{20} The use of, and emissions from, certain refrigerant chemicals are regulated under Title VI of the Clean Air Act (CAA)\textsuperscript{21} and the Montreal Protocol, a binding international agreement established in 1987.\textsuperscript{22} The most common chemicals historically used as refrigerants were chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs). Termed ozone-depleting substances (ODS) because of their ability to destroy stratospheric ozone, these substances fall into a broader category of substances called fluorinated gases, as they contain the element fluorine.\textsuperscript{23} Fluorinated gases are man-made, and they are emitted in various industrial processes such as aluminum production and from commercial applications including refrigeration equipment.\textsuperscript{24} Hydrofluorocarbons (HFCs) are a replacement for CFCs and HCFCs, which are being phased out under the Montreal Protocol.\textsuperscript{25} By 2030, all production, consumption, and importation of HCFCs will have ended, while the CFC phase-out was complete as of 1996.\textsuperscript{26} However, substitution of CFCs and HCFCs with HFCs has had an unintended consequence due to HFCs’ considerable global warming potential (GWP).\textsuperscript{27}

While the EPA currently does not regulate the emissions of HFCs, several HFC regulations have been proposed. For example, in 2013 the U.S. agreed with the G20 and China to develop nonbinding initiatives to reduce the growth of and use of HFCs, although no decisive reduction targets have yet been implemented following these initial agreements.\textsuperscript{28} Furthermore, in 2009, 2010, and again in July 2014, the U.S., Mexico, and Canada proposed amending the Montreal Protocol to address phasing out the production and use of HFCs. If adopted, the proposals would create binding HFC reduction targets for participating countries, similar to those in the current framework for CFCs and HCFCs.\textsuperscript{29} In addition, the EPA created a program, called the Significant New Alternatives Policy, to develop alternatives to ozone-depleting substances.\textsuperscript{30}

The Competitive Enterprise Institute estimated that the cost of phasing out CFCs in commercial refrigeration was between $3 and $5.4 billion, in 1994 dollars. Expenses included replacing or retrofitting equipment to use different refrigerants.\textsuperscript{31} The phase-out of HCFCs and HFCs may require similar investments by entities using commercial refrigeration. The EPA contends, however, that this HFC amendment would produce environmental benefits equal to a cumulative reduction of 90 gigatons of carbon dioxide equivalent (CO$_2$e)\textsuperscript{IV} emissions by 2050. In 2014, total global GHG emissions were about 45 gigatons of CO$_2$.\textsuperscript{32} The continued international interest in regulating high-GWP gases suggests that it is probable that regulatory frameworks will encompass HFC emissions.

While some companies also generate direct and indirect GHG emissions from transportation fleets, facility fuel consumption, and electricity use, primarily in the form of carbon dioxide (CO$_2$), these emissions present less of a regulatory risk for the industry. This is due to their relatively small share of total industry GHG emissions when compared with emissions from energy-intensive industries such as steel or gas production. However, current and proposed EPA regulations require a gradual increase in the fuel efficiency of

\textsuperscript{IV} This is a functionally equivalent measurement of the global warming potential of a substance in terms of carbon dioxide.
diesel truck fleets, which can increase capital costs to acquire new vehicles. However, improved fuel efficiency can provide substantial fuel cost savings.33

Food waste is a growing social and environmental problem that authorities are increasingly attempting to address. Although there is currently no federal regulation of food waste in the U.S., some states have implemented food waste and composting legislation. Such regulation could raise operating costs for the industry. For example, effective October 2014, Massachusetts banned commercial food waste from entering municipal waste streams. The ban applies to establishments that generate more than one ton of waste per week. According to the legislation, food waste must be diverted for donation, anaerobic-digester energy production, composting, or animal-feed production.34

U.S. federal authorities have initiated public- and private-sector voluntary food waste reduction programs, such as the USDA and EPA’s Food Recovery Challenge, started in 2013. Food retailers that participate in the challenge engage in waste-reduction efforts such as improving storage, inventory-ordering methods; increasing food donations; and recycling food for use in animal feed, energy production, or compost. The USDA highlights the efforts of companies that reduce waste, potentially benefiting company reputation.35

Companies are also voluntarily taking action on this issue because of growing concerns about the environmental impacts of food waste as well as the issue’s implications for hunger. The Food Waste Reduction Alliance (FWRA) is a group of food manufacturers, retailers, and restaurants committed to reducing food waste in the U.S.; top food retailers, including Safeway Inc. and Hannaford, are FWRA members. The FWRA looks to reduce food waste, increase food donations, and improve food-waste recycling.36 The FWRA is led by the Grocery Manufacturers Association, the Food Marketing Institute, and the National Restaurant Association.37

**Food Safety and Nutrition**

The FDA regulates the U.S. food supply through activities including supervising compliance with foodborne-illness standards; protecting the safety of foods, including food additives and dietary supplements; and ensuring accurate food labeling.38 For food retailers that carry private-label foods, regulation governing food labeling is of consequence. Health claims that promote the benefits of a particular ingredient must be substantiated by the FDA for approval in product promotion.39 Under the Lanham Act, the Supreme Court unanimously decided that competitors may sue for unfair competition over misleading claims made by other food and beverage producers.40 The growth in organic foods has led to regulatory labeling requirements. The USDA established national standards for organic production and processing in 2002.41

Food retailers are also subject to consumer-protection laws that can influence product labeling. The Federal Trade Commission (FTC) and the FDA have oversight of the truthfulness of advertising in the food industry, and that includes holding advertisers accountable. The Federal Trade Commission Act requires that “(1) advertising must be truthful and non-deceptive; (2) advertisers must have evidence to back up their claims; and (3) advertisements cannot be unfair.”42

In January 2011, President Barack Obama signed into law the Food Safety Modernization Act, which shifted the FDA’s focus from responding to food safety issues to working to preempt them. Among the law’s key mechanisms are preventive
controls plans for facilities that produce or process foods, such as new produce safety standards, preventive measures against intentional food contamination, mandated inspection frequency, testing by accredited laboratories, mandatory recalls if a company fails to issue a voluntary recall after an FDA request, and the suspension of registration as a food facility. Although food retailers are not required to register with the FDA under the FSMA, they must comply with the law’s traceability, import, and recall aspects.

In addition to government regulation, national and international voluntary initiatives promote food safety. The FDA has developed voluntary retail program standards to improve retail food safety. The standards focus on methods to reduce foodborne illness, including through proper sanitation at the retail level. The Global Food Safety Initiative (GFSI), an international food safety organization, provides guidance frameworks for crop farming and perishable plant products, including within supply chains. GFSI maintains benchmarks for food manufacturers and farm assurance standards with the goal of ensuring consumer confidence in food safety. Agricultural products companies, as well as retailers, manufacturers, and food service companies, can obtain certification through a third-party audit against certain schemes recognized by the GFSI.

**Labor Regulation**

In 2014 there were 3.3 million workers in the U.S. who earned minimum wage, and of those, 14 percent were in the retail industry, the second-highest total after the leisure and hospitality industry. If the Fair Minimum Wage Act, proposed in 2015, is passed, it would amend the FSLA to raise the federal minimum wage to $10.10 an hour, from its current level of $7.25. The bill is opposed by the primary Food Retailers & Distributors industry association, the National Grocers Association (NGA), and supported by the United Food and Commercial Workers, a union representing many grocery workers. This bill was voted down by the Senate in April 2014, but Democrats have vowed to reintroduce it, citing its massive popular support.

In response to increasing political and popular support for wage increases, 14 states raised their minimum wage in 2014. Three major U.S. cities will have raised their minimum wage to $15 within a decade. This political momentum shows that a federal minimum wage increase in the coming years is quite likely.

In a related development, President Obama has issued a directive to the Department of Labor to raise the threshold for overtime payments. Currently, only salaried workers who make $455 per week or less are legally required to be paid for overtime. While the new threshold is not known, some recommend increases of the threshold to as high as $984 a week, which, if passed, would significantly raise labor costs in this industry. On June 30, 2015, the U.S. Department of Labor announced a notice of proposed rulemaking (NPRM), accepting public comment for this rule.

**SUSTAINABILITY-RELATED RISKS AND OPPORTUNITIES**

Industry trends 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 Food Retailers & Distributors industry:

- **Environmental externalities of refrigeration:** The majority of retail food facilities in the U.S. use HCFC-22 (a hydrochlorofluorocarbon) as the primary refrigerant. As the use of HCFCs are regulated, HFCs are increasingly being used as alternatives. However, the use of HFCs may come under greater regulatory scrutiny given their GWP.

- **Natural resource efficiency:** Food retailers utilize electrical and fossil fuel energy to power lighting, refrigeration, and distribution fleets. Improved energy efficiency can reduce operating costs. Furthermore, food waste at the distribution and retail level increases demands on environmental resources used to produce food.

- **Consumer protection:** Food safety issues, including contamination and spoilage, could adversely affect consumer health and, in turn, harm company reputation and brand value. Company reputation could also be adversely affected by security breaches involving consumer data. The impacts of poor consumer protection on a company’s social license to operate could affect its risk profile.

- **Consumer health and nutrition:** Consumer trends such as an increasing preference for healthier foods, together with evolving regulation around product labeling and marketing, are shaping the competitive landscape for food retailers.

- **Protecting human capital:** Promoting fair labor standards and an inclusive workforce can improve a company's reputation and reduce its risk of litigation.

- **Externalities in the product supply chain:** Demand is rising for food items such as meat, seafood, fruits, and vegetables produced in a sustainable manner with more positive environmental and social externalities. At the same time, the food supply chain is exposed to risks stemming from climate change and environmental externalities. These factors emphasize the importance of strong supply-chain management and product-sourcing practices.

As described above, the regulatory and legislative environment surrounding the Food Retailers & Distributors industry emphasizes the importance of sustainability management and performance. Specifically recent trends suggest a regulatory emphasis on environmental protection and consumer health, 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 financial implications for companies in the Food Retailers & Distributors 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](http://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.

The Food Retailers & Distributors industry has three primary channels of environmental impact. First, the industry utilizes refrigeration systems to cool perishable and frozen products. Leaked refrigerants can contribute to climate change and destroy stratospheric ozone, and they present significant regulatory risk for the industry.

Second, food retailers rely on purchased electrical energy, which is currently produced primarily through fossil fuel combustion, to power refrigeration systems and lighting at retail establishments and distribution centers. Rising electricity prices and price volatility over time, combined with the industry’s inherently narrow margins, can result in significant financial impacts.

Third, food retailers generate food waste as a natural part of inventory shrink. While much food waste is diverted through food donations, some is disposed in landfills. Improved inventory management can reduce product loss, improving margins and minimizing the negative externalities of food waste.

#### Air Emissions from Refrigeration

The use of refrigerants creates unique regulatory risks for the industry. Refrigerants are emitted from refrigeration equipment at both retail and distribution locations and from refrigeration units used in transportation fleets. As discussed, refrigerant chemicals can have environmental impacts through two primary channels: HCFCs damage Earth’s ozone layer, and HFCs and HCFCs are highly potent GHGs. Evolving international regulations attempt to limit emissions of these substances.

An unintended consequence of the Montreal Protocol has been the proliferation of the use of HFCs and subsequent potential fugitive emissions. HFCs, while not ODS, have a global GWP of between 140 and 11,700 over a 100-year period, meaning that they are between 140 and 11,700 times more potent than CO₂ in terms of atmospheric warming potential over an equivalent time span. HFCs can enter the atmosphere through refrigeration-equipment leaks, during refrigeration-system recharging, or when equipment is dismantled and disposed of.
Although HFCs constitute a relatively small portion of global GHG releases today, emissions of these gases are rising rapidly, along with growing refrigeration needs worldwide and the continued replacement of HCFCs with HFCs. Increasing concerns over HFC emissions are driving proposals to regulate the substances. While there is business uncertainty about the future of HFC regulations, current HCFC emissions regulations can result in financial impacts through fines for noncompliance or emissions-abatement costs.58

The industry’s contribution to the emissions of high-GWP and ODS gases introduces industry-specific risks. Companies may be required by law to upgrade or replace refrigeration equipment in order to reduce emissions, impacting profitability through higher operating costs or capital expenditures. The use of alternative refrigerants or other technologies to lower or offset GHG and ODS emissions could mitigate these regulatory and operating risks. 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):

- Gross global Scope 1 emissions from refrigerants;
- Percentage of refrigerants consumed with zero ozone-depleting potential; and
- Average refrigerant emissions rate.

Evidence

The majority of GHG emissions from the industry are generated indirectly from the consumption of purchased electricity and fossil fuels; the sustainability and financial implications of energy use are discussed in the Energy & Fleet Fuel Management disclosure topic. The emissions of refrigerant gases typically represent a smaller portion of a company’s total GHG footprint. For example, approximately 68 percent of Kroger Co.’s GHG footprint is Scope 2 emissions from the consumption of electricity, while 22 percent stems from emissions of refrigerants.59 However, the unique nature of the regulatory environment surrounding these gases makes information pertaining to air emissions potentially material.

According to the EPA, HFC emissions are projected to rise by 140 percent between 2005 and 2020 because of accelerating refrigeration requirements and replacement of ODS.60 Furthermore, a report by the United Nations Environmental Programme notes that global HFC emissions increased by 8 percent annually from 2004 to 2008, and, if emissions trends continue, HFC emissions could account for as much as 19 percent of total annual GHG emissions globally by 2050.61 Current emissions are less than 1 percent of the total.62

As discussed earlier, several countries, including the U.S., are proposing binding and nonbinding global regulations to curb the increase in HFC emissions. Regulations may require the upgrade of refrigeration equipment to reduce emissions, including through the use of less-potent chemicals.63 Experience from the phase-out of CFCs shows that this could be an expensive proposition for industries affected by the HFC regulation—the cost of phasing out CFCs in commercial refrigeration was estimated to be between $3 billion and $5 billion, in 1994 dollars.

As GHG regulations become more stringent over time, the probability and magnitude of potential regulatory implications are likely to increase. Companies may utilize alternative refrigerants to reduce potential emissions and mitigate regulatory risk. For example, alternatives to HFCs include refrigerants using CO2 and ammonia. A Hannaford grocery store in Maine uses a CO2-based system that is expected to reduce the
store’s GHG footprint by 3.4 million pounds CO$_2$e per year. 64

Furthermore, emissions of ozone-depleting HCFCs present a risk to companies due to their continued, albeit diminishing, application as a refrigerant. Violations of regulatory emissions standards can result in penalties and costly corrective actions. In 2013, the EPA, under the authority of the CAA, fined Safeway, Inc., $600,000 for failing to promptly repair leaks of HCFC-22 at 659 stores nationwide. The settlement involves the largest number of facilities ever under CAA refrigeration regulations and requires the company to upgrade refrigeration equipment to reduce its company-wide average leak rate from 25 to 18 percent. The equipment upgrades and other preventative measures are expected to cost approximately $4 million. 65

Meanwhile, the EPA has established voluntary refrigerant emissions-reduction programs, including the GreenChill Partnership, which aims to reduce emissions of ODS and HFCs at food retailers. The program helps retailers reduce refrigerant leaks and transition to less-harmful refrigerants. Kroger Co., the largest food retailer in the U.S., joined GreenChill in September 2014 and committed to setting emissions-reduction targets and using innovative refrigeration technologies in its new and remodeled stores. 66

**Value Impact**

Fugitive emissions of HFCs and HCFCs primarily present a regulatory risk that can manifest in increased operating costs, capital expenditures, and impacts on operational efficiency and profitability. As the majority of emissions in this industry are difficult to control, future emissions regulation may require companies to purchase emissions-offset credits, resulting in lower profits. Regulatory fines related to HCFC or HFC emissions can result in increased liabilities or extraordinary expenses, reducing net income. Frequent violations of emissions regulations, if accompanied by monetary penalties, could lead to chronic impacts on value. As a result, there is a potential for operating costs related to monitoring and managing HFC and HCFC leaks to increase over time. Regulations can also lead to increased capital expenditures if companies are required to upgrade or replace capital equipment to comply with emissions laws. Furthermore, future HFC regulations could force companies to use costlier alternative refrigerant chemicals.

Regulatory trends indicate that the inclusion of HFC in the Montreal Protocol or other regulatory frameworks may occur in the future, as governments attempt to mitigate the rapid rise in non-CO$_2$ GHG emissions. This suggests that the probability and magnitude of impacts from HFC emissions are likely to increase in the medium term.

Scope 1 emissions data provide investors the ability to compare potential regulatory exposure between companies in this industry, and is a proxy for operating efficiency. The percentage of zero-ODP refrigerants in use can indicate a company’s relative exposure to regulatory action in the event of refrigerant emissions above thresholds, as well as the probability that a company may experience leaks of ODP refrigerants. It can also indicate the potential cost of switching to zero-ODP refrigerants. The average refrigerant emissions rate provides information on the likelihood that a company will face regulatory action or be required to undertake mediatory action in regards to ODS or GHG emissions. Emissions amounts and rates could also indicate the potential magnitude of regulatory response.
Energy & Fleet Fuel Management

Food retailer and distributor companies operate retail and distribution facilities that consume significant amounts of energy, particularly purchased electricity. Food retail and distribution spaces are generally more energy-intensive than other types of commercial spaces. Energy is used in these locations primarily for heating, ventilation, and air-conditioning (HVAC), refrigeration, and lighting. Refrigeration is used widely to cool frozen and fresh foods and beverages.

In addition, many large food retailers, and most food wholesale and distribution companies, own and operate transportation fleets consisting of tractor-trailers and other vehicles. The industry’s transportation fleets utilize significant amounts of purchased fossil fuels that can be costly and the use of which carries potential regulatory risk. Mobile refrigeration units are typically powered by a vehicle’s engine or by an auxiliary power unit. Fuel consumption for these companies can be a significant cost, and some firms have implemented measures to improve fuel economy and streamline logistics operations.

Fossil-fuel-based electricity production and transportation fuel consumption contribute to environmental impacts including air pollution and climate change. Although purchased electricity utilization is unlikely to present direct regulatory risks, it could have a financial effect on company value through its impact on operating costs. Sustainability factors, such as GHG emissions pricing, incentives for energy efficiency and renewable energy, and risks associated with nuclear energy and its increasingly limited license to operate, are contributing to a rise in the cost of conventional energy sources, while making alternative sources more cost-competitive. Therefore, it is becoming increasingly important for companies that rely on electricity consumption for their operations to manage their overall energy efficiency as well as their reliance on different types of energy and the associated risks.

Given the Food Retailers & Distributors industry’s inherently narrow operating margins, higher energy costs could adversely affect profitability, while improved energy efficiency may result in financially material cost savings. In addition, increasing the application of alternative and renewable energy, such as on-site solar power or compressed natural gas, can reduce dependence on conventional energy infrastructure, mitigating energy cost and supply risks. A reliable and continuous supply of electricity and fuel is essential for retail and distribution facilities, as disruptions to refrigeration could result in loss of food inventory. Access to cost-effective transportation fuel sources is likewise critical for distribution companies.

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):

- Operational energy consumed, percentage grid electricity, percentage renewable energy; and
- Fleet fuel consumed, percentage renewable.

Evidence

Food retail and distribution companies primarily utilize electricity to power refrigeration and lighting at retail locations. According to figures compiled by the Energy Information Administration’s Commercial Buildings Energy Consumption Survey, food retail stores are among the most electricity-intensive retail locations, with energy costing an average of $3.74 per square
According to a 2014 white paper by Schneider Electric, food retailers use as much as three times the energy per square foot of retail space as non-food retailers. Companies in the industry can improve margins through enhanced energy efficiency. According to the EPA, a 10 percent improvement in the energy efficiency of the average food retail store can have the same positive impact on operating income as a 1.26 percent increase in revenues. Since 2000, Kroger Co. has saved 2.3 billion kilowatt hours (kWh) through energy management. At a commercial electricity price of approximately 12 cents per kWh, this equates to hundreds of millions of dollars in cost savings over that time frame.

The average food retailer’s electrical load is 48 percent for refrigeration, 20 percent for HVAC, 18 percent for lighting, and 14 percent for other consumption. Therefore, the industry’s greatest energy-savings potential lies in improving refrigeration efficiency, while HVAC efficiencies offer additional benefits.

The Schneider Electric study also looked at industry examples of successful energy-reduction strategies at retail and distribution centers, which resulted in significant cost savings. For a 725,000-square-foot distribution center with 150,000 square feet of cold storage, annual energy costs were reduced by approximately 18 percent through optimization of HVAC systems, upgrades to pressure controls for refrigeration applications, and other actions.

The energy intensity of distribution centers and food retailers may vary, depending on their refrigeration, HVAC, and lighting needs. Per the Food Marketing Institute, the median square footage of U.S. supermarkets was 46,500 square feet in 2013. While the example of cost savings above is for a much larger distribution center, comparable energy-efficiency gains can be realized at smaller facilities and retail locations. One food retailer was able to reduce energy costs by 14 to 16 percent by implementing a low-pressure refrigeration system.

When these figures are extrapolated to multiple retail locations and distribution centers, the ongoing energy and cost savings for a company in the industry could be substantial. Given the pressure on net income margins, which, as mentioned earlier, was a median 2 percent in this industry in FY2014, energy savings may have a material financial impact on the results of operations.

Apart from cost considerations, energy management is important to ensure a continuous and reliable supply of power. Food retailers and distributors require energy to store and display food at the necessary temperatures. A disruption in energy supply could result in inventory loss. During the August 14, 2003, electricity blackout in the U.S. Northeast, Kroger reported that as many as 120 stores in the Michigan area were without power, resulting in lost inventory and sales. Kroger reported that its 2003 third-quarter earnings fell by $0.01 per share because of expenses related to the blackout.

The use of renewable energy has the potential to reduce exposure to rising energy prices over time. Several major companies have diversified their sources of purchased electricity. Safeway Inc. has partnered with the utility company Pacific Gas and Electric (PG&E) to reduce its energy use and increase its consumption of renewable energy. Between 2005 and 2009, Safeway saved 65 million kWh of electricity and received $6 million in energy rebates from PG&E. In addition, distributed renewable energy sources can provide an alternative to grid energy, potentially mitigating risks in the case of electrical...
infrastructure failure. In 2003, Safeway installed solar panels on 23 stores in California. These panels supply approximately 20 percent of the facilities’ average power use, and up to 48 percent of power use during peak hours.81 Similarly, Whole Foods Market Inc. reports in its FY2014 Form 10-K purchasing more than 4 billion kWh of wind-based renewable energy since 2004 and using solar systems in 17 stores and one distribution center, as well as fuel cells in 4 of its stores. The company reports that its goal is to reduce the energy consumption of its stores by 25 percent per square foot by 2015.82

Companies that operate transportation fleets purchase fossil fuels, primarily diesel and natural gas. While fuel expenses may represent a small share of revenue, the impact on profits can be substantial given the inherently low operating margins. For example, Sysco Corporation’s diesel fuel costs represented approximately 0.7 percent of sales in FY2013.83 However, the company states in its FY2014 Form 10-K, “Using current, published quarterly market price projections for diesel and estimates of fuel consumption, a 10 percent unfavorable change in diesel prices from the market price would result in a potential increase of $20 million to $30 million in our fuel costs.”84 This represents approximately 2 to 3 percent of the company’s net income in FY2013.85 The company’s attempts to mitigate fuel costs include “reducing miles driven by our trucks through improved routing techniques, improving fleet utilization by adjusting idling time and maximum speeds and using fuel surcharges.”86 In its second-quarter 2015 Form 10-Q, Chef’s Warehouse warns of the indirect risks of greenhouse gas regulation on its fuel purchases, stating, “Increased regulation regarding GHG emissions, especially diesel engine emissions, could impose substantial costs upon us. These costs include an increase in the cost of the fuel and other energy we purchase and capital costs associated with updating or replacing our vehicles prematurely.”87

The conversion of fleets to more efficient vehicles may require initial capital costs. However, more efficient fleets can provide lower-cost transportation with reduced emissions. In 2013, Core-Mark Holding Company, a major food distributor, began converting a portion of its transportation fleet to be powered by compressed natural gas tractors instead of diesel-powered vehicles. The company states in its FY2014 Form 10-K, “The transition . . . will allow us to purchase more environmentally friendly fuel, reduce our carbon footprint and lower our transportation costs.”88

**Value Impact**

Energy consumption is related to the cost of revenue. The low profit margins in this industry mean that companies can improve operational efficiency and financial performance by implementing long-term energy management strategies. Energy efficiency and renewable energy strategies can help protect companies against electricity price increases and transport fuel price volatility, enabling industry leaders to have lower cost structures compared to peers.

These actions may require capital expenditures to replace or refurbish refrigeration, HVAC, and lighting equipment, along with fleet vehicles, but these projects typically have a short payback period. Cost savings could be passed on to consumers through lower prices, which could help companies gain market share and increase their revenue.

Furthermore, the reliability of the energy supply is a source of operational risk and can be influenced by decisions about on-site versus purchased electricity and diversification of energy sources. These decisions are relevant in the context of a
The rising number of electrical grid disturbances in the U.S. every year (many of the increasing disturbances being due to weather-related events, which could increase in intensity and frequency as a result of climate change). Energy reliability is required to preserve perishable foods, and inventory losses due to energy supply disruption could result in lost sales. How well a company manages these operational risks can ultimately impact the company’s risk profile and cost of capital.

The probability and magnitude of financial impacts are likely to increase because of grid reliability issues, GHG emissions regulations, and other sustainability factors that could lead to increasing energy costs in the medium to long term.

Disclosure on total energy consumed provides analysts the ability to assess improvements in company performance over time and, when normalized, can provide a comparative measure of energy efficiency. The percentage of a company’s energy coming from grid electricity indicates its exposure to electricity price increases, as utilities internalize the costs of carbon pollution (for example, through new GHG mitigation regulations). It also indicates a company’s exposure to risks from grid disruptions. Disclosure on the percentage of renewable energy used indicates how well a company is positioned to capture possible cost savings and ensure stable energy prices from the use of renewables (renewable energy can be obtained through long-term power purchase agreements that allow for stability in prices paid for electricity). Likewise, the total fleet fuel consumed and the percentage that is renewable indicate regulatory risk and the potential impact from volatile and higher transport fuels costs.

Food Waste Management

The Food Retailers & Distributors industry generates food waste at various stages of operations. Food waste consists of edible or otherwise useful food that does not reach consumers, as well as foods that spoil or are damaged during transportation or stocking or on store shelves. Food waste represents the loss of the natural resources and human capital used in food production, which include land, water, labor, energy, and agricultural chemicals. There are also potential negative environmental and social externalities that result from food production, including air and water pollution, biodiversity loss, and labor rights issues, while food waste in landfills contributes to methane GHG emissions. Additionally, reducing food waste may become an important factor in improving food security in the U.S. and worldwide. In 2012, approximately 15 percent of U.S. households were food insecure, according to the USDA, meaning that food intake or eating patterns were disrupted because of the lack of food resources.

Food retailers and distributors play a direct role in reducing food waste, primarily through inventory management. At retail locations, foods that do not meet criteria for appearance, freshness, or size and shape are often culled from inventory or shelves and disposed of. These culled products may be donated to food banks, utilized as compost, or disposed of in landfills. Methods to reduce food waste include the management of food on store shelves, such as reducing in size the displays of perishables, and improving product culling practices.

Although some food waste is inevitable, marginal waste reduction can have financial and societal benefits. Wasted food product is equivalent to lost inventory, or shrink, and consequently reduces potential revenues. The sale of foods
otherwise destined for disposal at discount can increase revenues, while companies may also achieve cost savings through lower waste-disposal costs. Retailers that can minimize the amount of food lost to spoilage or otherwise removed from retail spaces and distribution facilities can therefore improve operating margins.

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):

- Amount of food waste generated, percentage diverted from the waste stream.

Evidence

A 2014 study by the USDA’s Economic Research Service estimated the weight, dollar value, and calories of postharvest food losses at the retail and consumer levels in the U.S. According to the study, approximately 10 percent, or 43 billion pounds, of the edible postharvest U.S. food supply was lost at the food retail level in 2010. The USDA estimates the economic value of this loss at $47 billion. According to the USDA analysis, the leading causes of retail food waste are damaged or inappropriate products packaging, unpurchased holiday foods, spillage, abrasion, bruising, inadequate storage, overstocking or over preparing, culling blemished or misshapen foods to meet customer preferences and demand, and technical failure.92

The EPA’s favored food-waste recovery methods are, in order of preference: source reduction, feeding people, feeding animals, industrial uses, composting, and incineration or landfill.93 A significant portion of the food waste generated at the retail level is diverted to food donation, animal feed, or energy generation. However, landfills also receive a substantial share of food waste. A 2013 survey of top food retailers and distributor companies, representing $245 billion in annual revenue found that approximately 44 percent of the companies’ food waste was disposed of in landfills or incinerated, 38 percent recycled for beneficial purposes, and 18 percent donated.94 Food retailers may have the greatest potential to reduce food waste via source reduction, including through improved stocking and inventory management that reduces the amount of waste produced.95

The financial benefits associated with food waste reduction can be significant. A 2012 Natural Resources Defense Council report found that Stop & Shop/Giant-Landover, a chain with more than 550 stores, lowered costs by an estimated $100 million annually by reducing food waste through improved inventory and shelf management and analysis of food freshness, shrink, and customer purchases in its stores’ perishables departments. According to the report, the company found that overfilled perishables displays can lead to product spoilage, which could displease customers, and require more staff to sort out damaged items. Additionally, customers did not notice a reduction in options in less fully stocked displays. In fact, customer satisfaction rose, as display product was an average of three days fresher than it was before the program was initiated. Similarly, the supermarket chain Price Chopper achieved a 3 percent rise in sales and a $2 million reduction in food waste by eliminating 680 stock-keeping units (SKUs) at one location.96

Tesco and Marks & Spencer, based in the U.K., have tested using an ethylene gas–absorbing strip to extend produce shelf life. The companies estimate that the use of the strip could save 1.6 million packs of tomatoes, 350,000 packs of avocados, and 40,000 packs of strawberries from disposal annually.97 In trials of the strip at Marks &
Spencer stores, food waste was reduced by a minimum of 4 percent. 98 Companies disclose opportunities related to reducing food waste in financial disclosures. For example, in its FY2013 Form 10-K, Safeway reports that its “long-term programs to control shrink expense include improved buying practices to prevent overstocking of inventory.” 99 In its FY2013 Form 10-K, Whole Foods reports efforts to reduce food waste, stating that it hopes to achieve zero waste in at least 90 percent of its stores by 2017. 100 Apart from improved inventory and stocking practices, another method to reduce food waste is the discounting of damaged or misshapen yet edible foods that would otherwise be destined for disposal. For example, the California store Berkeley Bowl sells damaged or nearly expired merchandise on a bargain shelf for 99 cents, garnering approximately $1,500 in daily revenue at one location. 101 In March 2014, French supermarket chain Intermarché began selling scarred, disfigured, and oddly shaped fruits and vegetables at a 30 percent discount at certain stores. The company purchased this produce from farmers. Intermarché found that the discounted produce sold out within a few days, and participating stores saw a 24 percent increase in foot traffic. 102 The chain now sells damaged and disfigured produce in 1,800 locations in France. 103 Similarly, Canada’s Loblaws Ltd., the country’s largest food and pharmacy retailer, began selling misshapen apples and potatoes at a 30 percent discount in 2015. 104 Food that cannot be donated or sold may be repurposed for energy production. The “Kroger Recovery System,” at a Ralphs/Food 4 Less distribution center in Compton, California, utilizes anaerobic digestion to transform food waste into biogas. In 2013, the facility processed 46,500 tons of food waste, generating 4 million kWh of energy for the 650,000-square-foot distribution center. The system has reduced area truck trips by more than 500,000 miles each year and lowered waste disposal costs by $5 million. These efforts are projected to reduce carbon emissions by 90,000 tons per year. 105 The regulatory environment surrounding food waste creates business uncertainty. Recent developments suggest that food retailers may be required to reduce waste or seek alternative disposal channels. In May 2015, in response to concerns over high levels of food waste and domestic food security, France passed legislation mandating that food retailers donate food to charities or divert it for use as animal feed. Companies are banned from deliberately allowing unsold food to spoil and have to sign food supply contracts with charities or face penalties of up to €75,000. The legislation is part of the country’s broader goal to reduce food waste by half by 2025. 106 Such regulations could raise food transportation costs and may require additional labor to sort food for donations.

**Value Impact**

Food waste can affect operational efficiency and create regulatory risk. Food waste represents a loss of salable merchandise, which can lower potential revenues and reduce assets in inventory. Reducing food shrink could improve operating margins, as the ability to reduce relatively significant purchases of food products and still achieve the same level of sales would directly benefit gross margins. Rising input prices could substantiate greater financial returns from improved efficiencies regarding inventory management. Reduced waste could also lower food-waste disposal costs.
Additionally, implementing more efficient shelf-stocking methods or selling items destined for disposal at a discount can result in higher sales and increased market share. Improved stocking practices and inventory management could not only lower food waste but also increase customer satisfaction and brand value.

Disclosure of the amount of food waste generated illustrates a company’s potential financial savings from improvement in food shrink loss and reduced disposal costs. Comparing relative amount of food waste generated among companies can also give insight into a company’s ability to preserve or improve gross margins over time compared to peers. The percentage of waste diverted gives insight into possible regulatory risks in the event of legislation regarding food-waste reduction, as well as into potential revenues from donation or beneficial recycling of food-waste material.

**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 product safety and health attributes, responsible business practices in marketing, and customer privacy.

Food retail companies impact consumers through the products they sell and direct interaction with customers at retail locations. Ensuring customer loyalty and retention are crucial for companies’ financial success. Data security, food safety, nutritional content, and labeling integrity can be directly linked to brand reputation, revenues and costs, and regulatory risks.

Given their use of electronic payment systems and customer accounts, food retail companies are susceptible to the downside risk of data breaches. A breach of sensitive customer data can undermine consumers’ trust in companies’ ability to secure their data, which could result in diminished brand value and lower revenues. Companies in this industry can mitigate these risks by ensuring proper data protection and meeting customers’ disclosure expectations.

Occurrences of food contamination can adversely affect brand reputation and customer perceptions of food safety, potentially reducing demand for certain products. Poor management of food quality and safety can also result in acute impacts such as recalls, lawsuits, and chronic effects such as the erosion of a company’s brand value or social license to operate. These issues can result in onetime costs and can lower market share or sales over the long term.

Additionally, consumer trends indicate a rising preference for foods with natural, healthy ingredients and produced with reduced environmental externalities, including organic and natural foods. Companies that adapt to these trends may garner greater market share through higher-margin products and develop a new customer base.

Finally, unlawful labeling and misleading marketing of products can erode brand value and lead to regulatory penalties. Food retailers are required to label private-label products according to labeling and marketing laws. Misleading or illegal labeling practices may damage a company’s reputation with consumers and result in regulatory action.
Data Security

Consumers share their financial and personal data with food retailers through electronic payment systems and loyalty programs. Credit cards and debit cards have eclipsed cash and checks as consumers’ preferred payment methods and were used for more than half of retail goods and services purchased in the U.S. since 2003. Through electronic payment transactions, food retailers establish a relationship of trust with consumers. Data breaches can occur through breaches of the physical payment technology, called point-of-sales (POS) breaches, as well as through various online hacking methods. As consumers become more educated about the threat of cybercrime, data security will become increasingly important for the industry. A data breach that results in the theft or loss of customers’ private data can undermine customers’ trust in a company’s ability to securely manage their data. This loss of confidence could directly result in reduced customer foot traffic and lower revenues. Firms that do find themselves compromised by a cyber-attack must manage the risks and tradeoffs of either disclosing the information publicly as soon as possible or maintaining secrecy to let experts trace the source of the breach. Firms that are perceived to intentionally withhold information about a data breach are exposed to public scrutiny as well as potential litigation.

Conversely, there is an opportunity for the most trusted companies to position themselves favorably in the eyes of consumers. To mitigate risks stemming from data security, companies can create a clear chain of command to identify and manage potential breaches, and they can be proactive in screening their systems to follow up on any irregularities. Such measures can be costly, but they are ultimately necessary, as cyber-attacks are likely to increase in both magnitude and frequency.

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 data security breaches, percentage involving customers’ personally identifiable information, number of customers affected; and
- Discussion of management approach to identifying and addressing data security risks.

Evidence

Data breaches can create significant administrative costs for companies. Research by Ponemon Institute showed that between 2010 and 2014, the cost of the average data breach in the U.S. (involving 100,000 or fewer records) increased from $4 million to $6 million. In instances in which a greater number of records are compromised, the cost of managing the breach may be higher. Retail firms are particularly at risk, as the probability of a “material” data breach (one that, according to Ponemon Institute, involves a minimum of 100,000 records) for a retail firm over the next two years is nearly 23 percent, second only to the public sector in terms of probability. Rising instances of security attacks, coupled with two recent high-profile breaches in the broader retail sector, have retail firms increasingly worried about the security of their customers’ data as well as their own. Data security breaches could have repercussions for a retailer’s market share and growth. Corporations are taking notice; in a 2014 PwC survey of CEOs across all industries, 69 percent admitted being concerned that cyber-attacks could hinder company growth.
Like many companies in the retail sector, food retail companies process consumer financial and personal data, including personal information stored within loyalty card accounts that consumers may have with retailers. Although most companies in the Food Retailers & Distributors industry have so far largely avoided high-profile data breaches like those that have affected some retail companies, recent incidents suggest that companies in the industry must be aware. In August 2014, Supervalu reported that it was investigating a data breach at about 200 of its grocery and liquor stores that may have resulted in the theft of credit card account numbers, expiration dates, and cardholder names. The breach, facilitated through the use of malicious software on the company’s POS network, occurred between June 22 and July 17. In September 2014, Supervalu reported that a potential data breach occurred in its customer payment system. The company believes that security software installed after the breach reported in August reduced the impact of the September breach. However, the company’s net income in the third quarter of 2014 fell by approximately $1 million as a result of costs associated with the two data breaches. Additionally, it is not known whether the data breaches have impacted customers’ trust in the company’s ability to protect their information; however, this loss of confidence could directly result in reduced customer foot traffic and lower revenues.

In its FY2015 Form 10-K, Supervalu reports, “In response to the information technology intrusions the Company experienced in the second quarter of fiscal 2015, the Company has taken and is continuing to take actions to strengthen the security of its information technology systems ... The failure to promptly detect, determine the extent of and appropriately respond to a significant data security breach could have a material adverse impact on the Company’s business, financial condition and results of operations.” The company reports that it is subject to the Payment Card Industry Data Security and American National Standards Institute standards and that costs of complying with future information security laws and standards could be significant. Furthermore, Supervalu states, “The Company could also lose credibility with its customers and suffer damage to its reputation and future sales.”

While the company has not been fined by regulators for the data breaches, the potential exists for regulatory penalties, such as those experience by companies in other retail segments.

**Value Impact**

Data security breaches can have direct impacts on operating costs, as well as affect brand value. Data breaches, whether of electronic records or through other means, could damage a company’s reputation for keeping sensitive customer information secure, which could unfavorably affect a company’s market share and revenues. Violations of laws regarding the protection of personal consumer information or reporting of breaches can result in regulatory fines or class action lawsuits from customers, which directly increase extraordinary expenses and contingent liabilities.

Technology systems upgrades may be required to meet higher data security standards and prevent future breaches, resulting in additional capital expenditures. Furthermore, companies may face chronic selling, general, and administrative and extraordinary expenses for incidents that affect relatively few customers but occur frequently; while high-impact, low-probability data security incidents can generate substantial onetime remediation costs and create contingent liabilities,
with impact on companies’ risk profile and cost of capital.

With increasing importance given to customer data security, combined with the higher utilization of electronic records and increasing sophistication and frequency of data security threats, the probability and magnitude of these impacts are likely to increase in the future.

The number of data security breaches, those involving personally identifiable information, and the number of customers affected show the historical strength of companies’ data security management and systems and the potential magnitude of financial impacts from breaches, including systems costs and litigation. The discussion of management’s approach to identifying and addressing security risks provides a forward-looking indication of the level of risk from data security breaches.

Food Safety

Food retailers sell a wide variety of fresh and processed foods. Maintaining product safety is crucial, as contamination by pathogens, hazardous substances, or spoilage can present human health risks. Contamination can occur at any stage in the food value chain, including food production, processing, transportation, distribution, and retailing. Measures to prevent spoilage and contamination include temperature control and frequent food inspection.

Federal and state law regulates food safety during production, distribution, and retail. Although food retailers and distributors may not be directly responsible for a food safety issue, they may nonetheless experience financial ramifications from safety issues. Companies can be adversely impacted through product recalls, damaged brand reputation, regulatory fines, and increased regulatory scrutiny. These factors can lower revenues directly through lost sales, and indirectly via consumer aversion to at-risk products and other shifts in consumers’ perceptions of a retailer’s food safety.

Food retailers and distributors can mitigate these risks through strong internal food safety management systems, including inspections, safety audits, employee training, maintaining foods at the proper temperature, and third-party audits. 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):

- High-risk food safety violation rate;
- Number of food-safety-related recalls, number of units recalled, percentage for private-label products.

Evidence

Given the breadth of the supply chain and the various channels through which food can be compromised, food safety issues can affect any company. Food contamination by pathogens has been found to be fairly prevalent at the retail level. In a study by the Environmental Working Group, antibiotic-resistant bacteria were found in 81 percent of the ground turkey and 69 percent of the pork chops, beef, and chicken sold at U.S. supermarkets that were sampled. A joint project of the FDA, the Centers for Disease Control and Prevention, and the USDA found that supermarket meat samples taken in 2011 contained “significant amounts” of potent strains of the bacteria salmonella and campylobacter, which are estimated to cause 4 million cases of food poisoning per year in the U.S.

Although not all of these food poisoning cases are due to contamination that occurred at the food retail or distribution facilities, the sale of
fresh meat, produce, and prepared foods can raise the risk of a food safety issue occurring, which emphasizes the importance of strong internal food safety management and inspection of incoming products.

The FDA and state agencies enforce food safety standards at retail and distribution locations, including food storage and preparation. The industry faces new regulatory risks related to food safety standards at the federal level, with laws such as 2011 Food Safety Modernization Act, which shifted FDA focus from responding to food safety issues to working to preempt them. Companies that violate regulations can be assessed penalties. For example, Sysco Inc., the world’s largest food distributor, was fined $19 million by the California Department of Public Health in 2014 for improperly storing meat, fish, produce, and dairy in unrefrigerated, unsanitary outdoor storage units.  

Company financial disclosure discusses the potential impacts of food safety regulations, which are myriad. In its FY2014 Form 10-K, United Natural Foods, a food wholesaler, reports, “The failure to comply with applicable regulatory requirements could result in, among other things, administrative, civil, or criminal penalties or fines, mandatory or voluntary product recalls, warning or untitled letters, cease and desist orders against operations that are not in compliance, closure of facilities or operations, the loss, revocation, or modification of any existing licenses, permits, registrations, or approvals, or the failure to obtain additional licenses, permits, registrations, or approvals in new jurisdictions where we intend to do business, any of which could have a material adverse effect on our business, financial condition, or results of operations.”

According to the FDA’s food recall information website, food recalls occur fairly frequently, which is a result of precautionary measures by food producers and retailers and, in some instances, government mandates. Although food retailers may be able to recoup direct costs associated with a safety-related product recall from insurers or suppliers, including the cost of the goods recalled and administrative and logistics costs, the consumer response to safety issues resulting in a product recall is difficult to gauge, creating business uncertainty. This uncertainty can adversely affect the financial performance of retailers if customers reduce purchases of certain goods or at specific stores. In some cases, however, food retailers may not be able to recover costs related to recalled products. Store-label products may be contaminated by compromised ingredients included in foods prepared by retailers at store locations. Furthermore, food safety can be compromised at the retail level through spoilage or other contamination. Companies implement strict temperature and hygiene controls to mitigate the risk of this occurring.

A 2014 study published in the *International Journal of Production Economics* found that the impact of product safety recall announcements on 10 of the top U.S. retail, food, and non-food, companies was greater if the recall was for a private-label product rather than for a national-brand product. This is likely because customers attribute greater responsibility for the recall to the retailer if the product is private label, as companies may have greater control over supplier selection and manufacturing processes. The implications of the study are clear for food retailers, which can benefit from an improved product safety performance of their private-label merchandise. The effect on profits could be magnified if private-label products achieve higher profit margins, which the study found was often the case.
In instances of possible food contamination, companies choose to err on the side of caution, issuing voluntary recalls and alerting customers. In August 2014, a fruit-packing company recalled nectarines, peaches, plums, and pluots because of a possible contamination with *Listeria monocytogenes*, a bacterium that can cause health problems. Companies including Whole Foods, Trader Joe’s, Kroger, Costco, Food 4 Less, and Walmart warned customers of the potential contamination, and Whole Foods voluntarily recalled some of its made-in-store products, such as salsas, tarts, salads, and cakes, that may have contained the contaminated fruit.  

A retail industry survey—in which 80 percent of the participants were food retailers—found that business interruption, including the loss of consumer confidence in products, is the primary concern when a product recall is issued for compromised merchandise. Similarly, all respondents stated that brand value was the second most important business concern in the event of a product recall.  

This is corroborated by company disclosure: In its FY2014 Form 10-K, Kroger states, “Concerns regarding the safety of the products that Kroger sells could cause shoppers to avoid purchasing certain products from us, or to seek alternative sources of supply even if the basis for the concern is outside of our control. Any lost confidence on the part of our customers would be difficult and costly to reestablish. Any issue regarding the safety of items sold by Kroger, regardless of the cause, could have a substantial and adverse effect on our financial condition, results of operations, or cash flows.” Notably, the company warns that food safety issues can affect financial condition, regardless of the cause. Therefore, it is of paramount importance to maintain strong safety standards throughout the value chain and to ensure that the products that ultimately reach consumers have been vetted.  

If a company fails to warn customers of potential food safety issues, legal action may ensue. In 2011, two Safeway customers sued the company for failing to alert them to a recall of eggs implicated in a 2010 salmonella outbreak. The customers had used Safeway loyalty store cards during the purchase, and the suit argued that the company should have alerted customers who purchased potentially contaminated foods to the recall. Other food retailers have systems that alert loyalty-card-holding customers in the event of a product recall. The suit was upheld in April 2014 and is ongoing.  

**Value Impact**

Food safety issues can adversely affect revenues in this industry. Instances of food contamination can harm reputation and brand value, lowering revenues as consumers curb spending on certain products and reduce foot traffic. This could also adversely impact intangible assets and damage future revenue growth and market share. Instances resulting in product recalls, particularly of higher-margin private-label products, may increase the magnitude of financial and reputational impacts.  

Additionally, companies may be unable to recoup direct costs associated with a food safety incident, such those for the lost product, administrative and transportation expenditures, and the loss of non-recalled contaminated food that is disposed. This can create extraordinary expenses and reduce profits. Furthermore, regulatory fines associated with food safety violations could result in direct regulatory penalties, which lower earnings or create contingent liabilities. The latter can also be affected by litigation due to company inaction in response to product contamination.
For food distribution companies that do not have customer-facing retail operations, food safety impacts are likely to be primarily felt through the loss of inventory and regulatory action, and potentially through loss of contracts with food retailers and other customers. Such companies may also be affected through the closure of facilities due to regulatory action, resulting in asset write-downs, or through permitting restrictions for new facilities, limiting their expansion into new markets and therefore affecting growth and market share.

Acute, high-impact food safety events could result in greater perceived operational risk and higher cost of capital.

The high-risk food safety violation rate indicates the severity of companies’ food safety incidents, which may factor into the magnitude of financial impacts arising from recalls, lost contracts, and remediation costs. The number of food safety recalls and number of units recalled is a measure of past performance on internal management of food safety as well as the financial impact from recall costs and lost sales. The ability to minimize recalls is an indication of the quality of performance over food safety concerns.

**Product Health & Nutrition**

Increasing consumer awareness of food content and nutritional value, and the impact these have on health, is shaping the industry’s competitive landscape. Demand for food products that are made with natural (nonsynthetic) ingredients or that are certified organic, low-fat, low-sugar, fresh, or made with without genetically modified organisms (GMOs) has been a driver of growth in industry.

Society’s understanding of dietary nutrition has advanced considerably in recent years and appears to play an increasing role in consumer behavior and decisions. Consumers’ perceptions of the health attributes of a company’s products can have significant, lasting impacts on brand value and, ultimately, financial performance. Although the links between some food ingredients and consumer health are not well established, consumers increasingly show preference for food categories perceived to be healthier. Food retailers recognize the risks and opportunities presented by consumers’ shifting preferences, and more diverse products are now offered at most retail stores. These product categories are growth areas at many retailers.

In addition, there is regulatory uncertainty surrounding food-ingredient regulation. Examples of this uncertainty include regulatory developments concerning the sale of sugary or fatty foods, which may expand to include other food-content categories. These developments may reduce demand for certain products, which could directly affect the industry’s revenues.

Companies that adapt to and take advantage of consumer and regulatory trends related to product nutrition and health impacts by meeting rising demand for organic, fresh, and healthy foods and offering alternatives to unhealthy foods may stand to benefit in the long term. 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):

- Revenue from products labeled and marketed to promote health and nutrition attributes; and
- Description of the process to identify and manage products and ingredients of concern and emerging dietary preferences.
Evidence

Increasing consumer awareness of the potential health impacts of an unhealthy diet is driving a shift in food preferences. There is increasing preference for foods that are perceived as healthier, including those that are organic, made with nonsynthetic ingredients, lower in sugars and fats, and GMO-free. For example, the low-calorie food market was valued at $7 billion in 2013 and is expected to increase at a compound annual growth rate of 6 percent from 2014 to 2019. The industry is adapting to these consumer trends through expanded healthier product options, as well as restricting the use of certain ingredients. Whole Foods maintains a list of “unacceptable ingredients for food” that it will not allow in products in its stores. The company says, “Our quality standards for food prohibit hydrogenated fats and artificial colors, flavors, sweeteners or preservatives—and that’s just to start. We base our decisions not just on food chemistry, but also ideology, philosophy, proper labeling, and a careful evaluation of the promise we’ve made to our customers.”

Local and federal authorities have also restricted the sale of products containing high levels of ingredients known to be detrimental to human health. In 2015, the USDA set a 2018 deadline to ban trans fats (trans-unsaturated fatty acids), a major contributor to heart disease, from the U.S. food supply. The agency’s trans fat labeling rules are believed to have contributed to a decline in trans fat consumption by 78 percent between 2003 and 2012. Laws such as these, which currently primarily affect food producers, indicate that there is regulatory risk for food retailers as well, and future regulation could reduce sales of certain products known or discovered to be unhealthy. In response to consumer and regulatory trends regarding the possible adverse health impacts of food consumption, companies are changing product recipes to include fewer harmful ingredients, improving labeling, and furthering the development of healthy alternatives.

One of the fastest-growing food segments is that of organic foods. Although this is just one of the categories of foods that consumers are gravitating toward, the growth in this segment is a strong indicator of consumer trends. Organic foods are those that are made of plant or animal ingredients that were grown or raised according to a set of environmentally and ethically sound standards, contain no artificial ingredients or additives, and do not contain GMOs. Organic foods have experienced double-digit annual sales growth over the past nine years, compared with only 3 percent growth in non-organic food categories. This further indicates consumers’ interest in products that address ingredient health concerns, in addition to concerns over environmental and animal welfare impacts (the latter is discussed further under the issue of Management of Environmental & Social Impacts in the Supply Chain). In the U.S., sales of organic foods reached $28 billion in 2012, up from approximately $11 billion in 2004. The top two organic food categories are produce and dairy, which represent 43 and 15 percent of organic food sales, respectively.

According to the USDA, “Consumers prefer organically produced food because of their concerns regarding health, the environment, and animal welfare, and they show a willingness to pay the price premiums established in the marketplace.” The organic food segment is expected to continue to grow faster than that of non-organic foods, representing a significant growth opportunity for food retailers and distributors.

GMOs can be used to produce drought-resistant crops and crops with other features that may have
some environmental or social benefits. There is currently much debate about the potential health and environmental impacts of GMOs, and research on the subject has not been conclusive. Nonetheless, consumers in certain markets perceive GMOs as having negative health impacts. In a *New York Times* poll of 1,052 adults conducted in 2013, three-quarters of respondents were concerned about GMO ingredients in their food. About 37 percent of those polled expressed fears about the potential adverse health effects of foods with GMOs.

While GMO crops are widely produced, consumer pushback has stalled private-sector attempts to introduce genetically modified (GM) animals into food production and retail. The only GM animal produced to date is salmon. AquaBounty Technologies is currently seeking FDA approval for its breed of engineered salmon, called AquAdvantage, that reach a set weight faster than other breeds of farmed salmon. The company has been seeking FDA approval for the fish since 1993. Major retailers including Kroger, Safeway, and Whole Foods have stated that they will not sell GM fish at their stores if the fish become commercially available. Although this move may eliminate potential product sales for food retailers, companies have opted to adapt their business models to capture shifting consumer preferences and spending.

In response to consumer demand, top retailers have introduced organic and natural product lines to their private-label portfolios. For example, Kroger now has a line of products called Simple Truth, which includes organic and natural foods. One segment of these Simple Truth products is called “Free from 101,” which, according to the company, “means that these products are free from 101 artificial preservatives and ingredients that [its] Customers have identified as being ‘undesirable.’” Further, the company states that natural foods is the fastest-growing department within its stores, and in response, it has more than doubled offerings in that department.

In recent years, other top retailers, including Safeway and Supervalu have also increased their private-label and national brand offerings of organic and natural foods to cater to consumer demand. Private-label natural foods experienced growth even during the 2007–2010 recession, implying that consumers may purchase quality foods even when their disposable income is stagnant or falling. Companies continue to experience strength in their natural foods departments. Kroger’s natural and organic foods departments experienced double-digit sales growth in the first quarter of 2015, exceeding sales growth across all departments. The higher margins achieved on these products had a favorable impact on the company’s first quarter earnings.

Companies have recognized these consumer trends and their long-term nature in their SEC filings. Core-Mark Holdings states in its FY2014 Form 10-K, “We have specifically focused more heavily on fresh and healthy offerings because we believe that over the long-term the convenience shopper is trending toward these type of items.”

**Value Impact**

Product health and nutrition can impact revenues and market share. Products and brands associated with healthier foods can benefit from growth in brand value, higher revenues, and increased market share. Conversely, products or brands associated with ingredients perceived to be unhealthy can adversely impact demand for new or existing products. Companies with portfolios of healthier alternatives can benefit from an increase in market share as customers shift spending from traditional products to new, healthier product
categories. Such products may also command price premiums, improving company profit margins.

As demand for products with improved health and nutritional characteristics continues to increase, and regulation evolves further to encourage the sale of healthy products, the probability and magnitude of the impact on financial results in this industry are likely to increase in the near to medium term. Companies that are not proactive in anticipating and responding to shifting consumer demand and evolving regulation towards healthier products may face increasing risks related to unsold inventory for unhealthy products. The revenue from products labeled and marketed to promote health and nutrition attributes can indicate the potential market for these products. Likewise, it is also indicative of a company’s exposure to the potential downside risk because of bans on certain ingredients in traditional products or lower revenues due to shifting consumer preferences. The discussion of the process to identify and manage products and ingredients of concern and emerging dietary preferences provides information on a company’s positioning and planning for key customer trends likely to affect sales in the industry.

Product Labeling & Marketing

As consumers become progressively more concerned about food content and safety, the accuracy and information presented in food labeling is of growing importance to consumers and regulators alike. The sale of private-label products makes this issue especially relevant for companies in the industry, as companies must ensure that the labeling on their products is accurate, lawful, and not misleading. Social implications of labeling integrity could include consumers’ purchase of products that they believe will convey certain health benefits to them, when in fact the products do not, or they are found to be harmful, or consumers are defrauded when a product is falsely advertised.

Additionally, new laws and regulations regarding the use and labeling of GMOs have a direct impact on the industry, as many food ingredients are derived from genetically modified ingredients. Consumers are concerned about the production of GM crops and animals, which creates trepidation about adverse health effects and has accelerated demand for GMO labeling.

Communication with consumers via product labeling is an important facet of food retail. Consumers today expect more detailed information surrounding product ingredients and production methods, while companies must adhere to regulations regarding accurate labeling. These issues can affect the competitive landscape of the industry, as companies may be subject to litigation or criticism resulting from making misleading statements or failing to adapt to consumer demand for increased labeling transparency. These factors can have an impact on companies’ brand value and revenue growth.

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):

- Notices of violations received for non-conformance with regulatory labeling and/or marketing codes;
- Amount of legal and regulatory fines and settlements associated with food marketing and/or labeling; and
- Revenue from products labeled as (1) containing GMOs and (2) non-GMO.
Evidence

The current legislative environment surrounding labeling varies from state to state, and it is evolving. The FTC and the FDA have oversight of the truthfulness of advertising in the food industry. By law, certain qualities of a food product must be clearly printed on labels, while other information is left to the discretion of the manufacturer or retailer. For example, the FDA defines the term “organic” at the federal level, but the word “natural” does not yet have a legal definition. However, the FDA has not objected to the use of the term “natural” if “food does not contain added color, artificial flavors, or synthetic substances.”

Foods labeled as “natural” generated more than $40 billion in retail sales during 2013, ranking second only to foods labeled as “low in fat.” Because the FDA does not have a consistent definition of the term “natural,” companies’ use of the term has led to confusion among consumers. Inaccurate or misleading labeling of products, including around the term “natural,” has resulted in legal action. Furthermore, market research firm Nielsen found that sales of foods with labels that include or reference “fat content,” “preservatives,” and “natural” alone totaled $133 billion in 2013, while foods labeled as “organic” saw sales rise by 22 percent. This impressive market size and growth could be hindered by poor labeling and marketing practices that adversely impact consumer trust in food retailers and their brands.

Companies have faced lawsuits filed by consumers and regulators over harm to consumers due to labeling inaccuracies. A nationwide class-action lawsuit filed against Whole Foods in 2013 alleges that the company sold baked goods labeled “all natural” that, in fact, contained a synthetic leavening agent called sodium acid pyrophosphate. The suit survived a dismissal in June 2014 and is pending as of the time of this writing.

In 2013, Trader Joe’s, a privately held food retailer, settled a product labeling class-action suit for $3.4 million. The suit alleged that the company’s labels were misleading because they included the phrases “all natural” and “100% natural” despite the fact that the items contained synthetic ingredients. The company was ordered to cease using the term “all natural” on the products addressed in the lawsuit. This labeling readjustment could lower sales of the products, as consumers are no longer drawn by the claim of natural ingredients. In another case, Kroger’s subsidiary Ralphs was fined $300,000 by food regulators in California for selling frozen desserts with up to 15 percent less volume than advertised on the label. The fine came after an investigation was launched in response to consumer complaints of the labeling inaccuracy. In addition to the fine, all Ralphs and Food 4 Less stores in Riverside County, California, were ordered to hire a “pricing integrity coordinator” to ensure accurate labeling.

Consumers have grown increasingly concerned about the use and labeling of GMOs in their food and beverage products. According to the 2013 New York Times poll of 1,052 adults cited earlier, 93 percent of respondents said that foods with GMO ingredients should be labeled. As a result of constituent support of the issue, U.S. lawmakers have introduced legislation that would require companies to label food products containing GMOs. As of 2014, more than 60 bills to require GMO labeling have been introduced in more than 20 states, which may raise labeling costs for food retailers and raise the risk of potential product mislabeling. Only Massachusetts, Maine, and Vermont have successfully passed GMO labeling legislation, which has yet to be implemented.
In June 2014, four national food industry organizations, some of which represent the top food retailers and distributors, filed suit against the state of Vermont over its GMO-labeling legislation. The suit alleges that the law, which would require retailers and manufacturers to label foods made with GMOs, would be nearly impossible to abide, as thousands of package labels would have to be revised, including those of private-label products. The law establishes a fine of $1,000 per day per product that is in violation.\textsuperscript{158} Were additional states to adopt similar legislation, food retailers could face rising labeling costs for their private-label items and could potentially incur penalties if found in violation of the laws.

Conversely, companies may benefit from providing detailed information about product contents and potential benefits using high standards of marketing and ensuring that labels do not provide misleading information and thereby proactively addressing consumers’ growing desire for both information and improved labeling practices. Whole Foods has stated that by 2018 it will indicate whether or not its products sold in the U.S. and Canada contain GMOs. The company will also indicate whether animals used in the production of the company’s offerings of meat, dairy, eggs, and farmed seafood were fed GMO corn, soy, or alfalfa.\textsuperscript{159}

Shareholder resolutions filed with major food retailers concerning the labeling of GMO products suggest that investors may believe GMO product labeling to be in the best interest of shareholders. In 2014, Green Century Capital Management filed a resolution with Safeway requesting that the company adopt a policy to label all products containing GMO ingredients.\textsuperscript{160} Although only 10 percent of shareholders voted in support of the resolution at the company’s shareholder meeting,\textsuperscript{161} it is notable that a similar resolution filed with Safeway in 2006 requesting that products with GMO ingredients be labeled received 7 percent of votes in support.\textsuperscript{162} This suggests that investor interest in the issue may increase over time.

**Value Impact**

Labeling and marketing integrity issues can affect food retailers and distributors through two primary channels: First, deceptive or misleading labeling practices that cause consumer confusion or dissatisfaction can harm brand value, and chronic instances of presenting false or deceptive information when advertising a product could harm market share, as consumers lose confidence in a company’s labeling integrity.

Second, violations of labeling or marketing laws or deceptive practices can lead to regulatory penalties or lawsuits, resulting in higher extraordinary expenses or contingent liabilities. Companies could also face higher selling, general, and administrative expenses (SG&A) to address the terms of regulatory or legal actions. Repeated violations could invite additional regulatory oversight, increasing the likelihood of new labeling requirements.

Additionally, state or federal regulation concerning the labeling of products containing GM ingredients or other regulations around labeling could increase SG&A or marketing expenses in the near term to undertake such labeling. Such labeling could, in turn, impact revenue and market share if consumers reduce purchases of such products once GM ingredients are labeled or other health information is provided that changes consumer perception of the health attributes of products. Conversely, product labeling and marketing providing clear and useful information on health attributes or nutritional content of products could help companies improve market share over time.
As the regulatory environment surrounding product labeling evolves over time, and shareholder interest grows, the probability and magnitude of financial impacts from this topic are likely to increase over the medium term.

The number of notices of violations received for nonconformance with regulatory labeling and/or marketing codes and the amount of legal and regulatory fines and settlements associated with food marketing and/or labeling can help analysts determine financial costs associated with misleading marketing policies and well as the strength of a company’s internal management of labeling and marketing practices. Disclosure around a company’s product portfolio containing GM ingredients can help analysts determine the company’s exposure to risks and opportunities associated with pending and future regulation that requires labeling of these ingredients.

**HUMAN CAPITAL**

Human capital addresses the management of a company’s human resources (employees and individual contractors), as a key asset to delivering long-term value. It includes factors that affect the productivity of employees, such as employee engagement, diversity, and incentives and compensation, as well as the attraction and retention of employees in highly competitive or constrained markets for specific talent, skills, or education. It also addresses the management of labor relations in industries that rely on economies of scale and compete on the price of products and services. Lastly, it includes the management of the health and safety of employees and the ability to create a safety culture within companies that operate in dangerous working environments.

The Food Retailers & Distributors industry is heavily reliant on a large workforce. Labor practices in the industry, whether revolving around hiring practices, work hours, or wages, affect not only operating costs and efficiency of the firms involved, but can also affect companies’ social license to operate. Labor disputes can receive negative media and public attention and can adversely affect business operations through higher employee turnover, strikes, or legal action. An inclusive, fairly compensated workforce can contribute to long-term growth in revenues for companies in the industry.

**Fair Labor Practices**

The North American Industry Classification System’s Food and Beverage Stores industry employs approximately 5.1 million people, and the most common positions are sales workers, cashiers, materials recording and distributing workers, and store clerks, according to the U.S. Bureau of Labor Statistics (BLS). Cashiers and retail salespersons, two of the fastest-growing occupations within the U.S. retail sector, are also among the lowest-paying jobs. Because of their inherent labor intensity, industries in the retail sector are often cited in discussions of labor practices, unionization, discrimination, and fair-wages. Fair labor practices are a central human capital issue, which also encompasses other elements of labor relations that can have varied financial impacts on a food retail company’s operations, including reputational implications.

Certain attributes of the Food Retailers & Distributors industry contribute to labor-related risks. A large share of employees in the industry are employed in low-wage, low-skill positions. Some employees are also members of organized labor unions. Labor unions can give workers greater ability to negotiate wages, benefits, and working conditions. Conversely, worker dissatisfaction with wages, benefits, and other labor issues, combined with a breakdown in communications between employers and
employees, has led to employee strikes or lockouts at major food retail companies. Poor labor practices may also cause greater employee turnover and absenteeism, which can affect operational efficiency and lower profitability.

Furthermore, ethnicity and gender continue at times to factor unfavorably into retail workers’ wages and working conditions, which may undermine the benefits of a diverse and inclusive workforce. Companies in the industry have been involved in gender or racial discrimination cases, in some instances resulting in costly financial settlements.\textsuperscript{167}

Proper management of, and communication pertaining to, issues such as pay, working conditions, and fair treatment of workers can prevent conflicts with employees that could harm employer-employee relations, which could adversely impact operations and create reputational risk. Companies may benefit from a long-term perspective on managing workers, including their pay and benefits, in a manner that protects workers’ rights and enhances their productivity while ensuring the financial stability of a company’s operations. Firms that are successful in developing an inclusive workforce, providing career support to traditionally underrepresented employees, and discouraging biases in wages, work conditions, and promotions have the potential to enhance shareholder value over the long term. 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):

- Average hourly wage and percentage of in-store employees earning minimum wage;
- Percentage of active workforce covered under collective bargaining agreements;
- Number and total duration of work stoppages; and
- Amount of legal and regulatory fines and settlements associated with (1) labor law violations and (2) employment discrimination.

**Evidence**

The average annual compensation in the North American Industry Classification System’s Food and Beverage Stores industry was only approximately 56 percent of the U.S. average for all industries.\textsuperscript{168} Although average compensation in the industry is low, aggregate employee wages are a large expense—as mentioned earlier, wages account for approximately 12 percent of the industry’s revenues. If, as mentioned earlier in the Legislative and Regulatory Trends section, the federal minimum wage is increased, it would put pressure on the margins of companies in this industry. Conversely, higher wages could also ensure greater worker satisfaction, which can result in improved productivity and quality of customer service.

Many employees in the retail sector, including food retail, are part-time, whether by choice or involuntarily. A study by the Retail Action Project and the City University of New York’s Murphy Institute found that only 17 percent of workers in New York City’s retail industry had a predictable schedule. Only 30 percent reported knowing their work schedule at least one week in advance.\textsuperscript{169}

Because of the industry’s labor characteristics, including the employment of a large number of similarly skilled employees, workers may be encouraged to organize into unions. In its FY2014 Form 10-K, United Natural Foods states, “We have in the past been the focus of union-organizing efforts, and it is likely that we will be the focus of similar efforts in the future. As we increase our employee base and broaden our
distribution operations to new geographic markets, our increased visibility could result in increased or expanded union-organizing efforts.”

The average percentage of employees in grocery stores who are represented by collective bargaining agreements was 16 percent in 2013, which is greater than the average for all industries in the U.S. (12 percent). The rates for other sub-industries of the Food Retailers & Distributors industry are slightly above those for the broader retail sector, and several of the top companies have significantly higher union representation. Safeway reports a union representation rate of approximately 80 percent, while Kroger reports that a majority of its 375,000 employees are unionized.

A study by researchers at the University of California, Berkeley, found that wages and working conditions for California’s food retail industry (including grocery stores, specialty food stores, and general merchandise stores) have declined generally, despite commercial growth in the industry. While the number of grocery stores in California rose by approximately 5 percent between 1999 and 2010, the median hourly wage of grocery store workers, the largest cohort of food retail workers, fell from $12.97 in 1999 to $11.33 in 2010, or 13 percent. This decrease is not attributable to increases in lower-wage part-time work, which remained fairly constant during the period. In the same time span, the proportion of food retail workers who earned poverty wages, or the minimum wage required to provide a low standard of living for a family of three, increased from 43 percent to 54 percent. By contrast, private-sector median wages in the state rose by approximately 1 percent to $16.16 between 1999 and 2010.

The weekly wage decrease for full-time workers and union employees was greater than for part-time employees; though union employees still earn more per hour than non-union employees and tend to receive better benefits, such as healthcare coverage and sick leave. However, there has been a decline in the percentage of union employees in the industry in California due to company mergers resulting in layoffs and the growth of non-unionized supermarket chains.

As mentioned earlier, unionized employees can have greater bargaining power, which gives employees some leverage in negotiations with employers. The overall wage declines found in the study may affect employees’ job satisfaction. Several examples of work stoppages at major food retailers as a result of wage and benefit issues underscore the importance of strong labor relations.

In February 2004, 59,000 Southern California members of the United Food and Commercial Workers Union and three major retailers (Albertsons, Ralphs, and Safeway subsidiary Vons), settled a 138-day labor strike by announcing a new three-year labor deal. The companies had intended to reduce labor costs to compete more effectively with Walmart discount grocery stores. The strike originated from union members’ discontent with health benefits and wages. Union members returned to work largely as a result of financial hardship from not working for a long period of time. The food retailers succeeded in their goals of reducing labor costs: Wages were not raised, and health benefits were reduced for new hires. However, the food retailers combined lost an estimated $2 billion in sales, as many shoppers refused to cross union picket lines, even though shelves were fully stocked. Safeway later reported in its financial filings that the total reduction in earnings from
The strike may have had long-term impacts on the three companies’ market share in Southern California, as consumers were forced to turn to rivals during the strike and became permanent customers of competitors thereafter, due to more attractive pricing or other perceived benefits. Food retail shoppers tend to develop habits, including shopping at the same supermarket. Once consumers change habits, such as shopping at a new store, it can be difficult for retailers to win them back. According to research firm Strategic Resource Group, the market share of the three retailers involved in the 2003–2004 strike fell from 60 percent in 2004 to 23 percent in 2011. Although this change is likely due to a number of economic factors, such as an increased presence of discount food retailers, the strike may have contributed to the market share decline.

More recently, a 2010 strike of approximately 300 unionized distribution center workers at Shaw’s, a Supervalu subsidiary in Massachusetts, caused Supervalu’s first-quarter 2011 earnings to fall by approximately five cents per share, or 12 percent of the quarter’s total earnings per share. The strike was due to employees’ discontent with wages and health benefits. These incidents exemplify the challenges that can result from employee strikes related to wages and working conditions, and emphasize the importance of management recognizing and addressing worker concerns in a timely manner and maintaining good communication with employees.

Company financial disclosures directly address risks stemming from workers’ ability to strike. In its FY2015 Form 10-K, Kroger states, “Upon the expiration of our collective bargaining agreements, work stoppages by the affected workers could occur if we are unable to negotiate new contracts with labor unions. A prolonged work stoppage affecting a substantial number of locations could have a material adverse effect on our results. Further, if we are unable to control health care, pension and wage costs, or if we have insufficient operational flexibility under our collective bargaining agreements, we may experience increased operating costs and an adverse effect on our financial condition, results of operations, or cash flows.” Contracts with unions expire periodically, and contract renegotiation periods are the times when unions can bargain with employers over key issues such as wages, pension costs, and health care.

Furthermore, companies must ensure that their labor practices comply with labor laws, as class actions brought by employees can prove costly. In 2008, Supervalu settled a class action with nearly 200,000 employees of several of its subsidiary grocery chains for allegedly failing to pay final wages to terminated employees over an eight-year period. The employees of the Food and Commercial Workers union also claimed that non-union employees did not receive pay for accrued vacation time upon termination, as is required under California law. The company paid $15 million to reimburse the class participants’ wages and legal expenses.

Along with direct financial impacts of work stoppages and increases in wages or benefits, consumer sentiment in relation to labor practices and wages can be a driver of retail industry revenues and market share. In a 2014 Ernst and Young survey of U.S. shoppers, 37 percent of respondents said that a firm’s reputation for paying fair wages was an important factor in their choice of which retail store to shop at. In addition to fair wages and benefits, equal promotion and compensation regardless of ethnicity, gender, or other factors is important within the industry. Violations of discrimination
laws can result in litigation and costly settlements and bring negative attention to a company.

A 2014 study found that unionized and non-unionized food retail workers of color in California were, on average, paid approximately 14 to 17 percent less than non-Latino white workers, showing that the wage gap exists regardless of whether employees are covered by collective bargaining agreements. The frequency of employment law violations is also correlated to ethnicity: According to the study, Latino and mixed-race employees were more likely to be sent home early with no pay, work off the clock, not be offered a lunch break, and not be paid for all hours worked. Statewide, non-white employees represent about 62 percent of the food retail workforce, but despite constituting a majority of the workforce, minorities are underpaid and at greater risk for labor violations than their Caucasian counterparts. These statistics reflect the industry in California, but they may also be reflective of broader discrimination conditions in the U.S. In fact, top companies in the industry have been sued by employees in multiple states for alleged discrimination based on gender or ethnicity.

A number of lawsuits brought against major food retailers alleging unfair labor practices suggests that the industry may have characteristics that increase the likelihood of labor issues. In 2008, Kroger settled a discrimination class action brought by 12 African American employees for $16 million. The suit, filed in 2001, alleged that company employees systemically blocked the promotion of African Americans and paid them less than their Caucasian counterparts. The plaintiffs claimed that the pay and promotion disparities existed at multiple locations examined between 1997 and 2006.

In 1997, Publix paid $82 million to settle accusations brought in an employee class action that the company systematically denied promotions, raises, and preferred assignments to women. The case covered more than 100,000 women who worked at the company’s stores in Florida, Georgia, South Carolina, and Alabama in the 1990s. The plaintiffs claimed that women were relegated to cashier positions, which have limited potential for advancement, and were denied fair training, pay, and full-time status. As part of the settlement, Publix agreed to have the plaintiffs’ lawyers and the U.S. Equal Employment Opportunity Commission monitor the company’s pay and promotion practices for up to seven years following the settlement. The settlement came following a number of multimillion-dollar discrimination cases brought against other major food retailers.

More recently, in 2009, Albertsons settled three racial discrimination cases brought by the Equal Employment Opportunity Commission on behalf of 168 minority employees. The company agreed to pay $8.9 million to settle the charge of creating a hostile working environment, which included allegations of racial slurs, racial graffiti, harassment, discriminatory treatment, and retaliation by non-minority employees at a company distribution center in Colorado. In all these cases, the reputational effect—as such cases can be published in the media—must be considered along with legal settlements and related costs.

**Value Impact**

The Food Retailers & Distributors industry is characterized by high labor intensity, relatively low wages, and relatively high union representation. Employee wages and related expenses make up a significant share of operating costs for food retailers and distributors. Employers must balance the need to keep payroll costs low,
to be able to offer competitive prices, with mitigating the costs of workplace disruptions, litigation, and employee turnover that can come from poor labor practices, and not offering competitive wages.

Companies that manage this risk well can decrease their total costs over the medium to long term and garner positive consumer sentiment. On the other hand, with poorly managed labor relations, contract negotiations can lead to labor disputes and operational disruptions if workers are not satisfied with their wages or working conditions, which can have a short-term impact on revenue and a longer-term impact on reputation, brand value, and, ultimately, market share. Furthermore, attempts by employees to unionize at companies with no or low current union representation could increase labor-related expenses through increased wage, pension, and other liabilities. Such labor cost increases could also occur through ratification of emerging state legislative proposals on raising the minimum wage.

Companies that are proactive in addressing concerns around wages and benefits would be able to minimize operational disruptions or unanticipated cost increases related to labor issues. Such companies would also be able to maintain lower employee turnover compared to peers, protecting their operating expenses further.

Lawsuits related to working conditions, discrimination, or violations of labor laws can create significant extraordinary expenses and contingent liabilities. These can also affect company reputation adversely. Companies perceived to have a higher operational risk related to labor relations, because of frequent or high-profile labor disputes, could face higher capital costs.

The average hourly wage of workers is indicative of labor costs and can give insight into how much relative risk companies face from regulatory and other pressures to raise wages. Furthermore, this can highlight a company’s risk related to high turnover and low worker productivity. Disclosure of the amount of legal and regulatory fines and settlements associated with employee discrimination and labor laws is a lagging indicator providing insight into a company’s work culture and strength of management processes to oversee adherence to labor laws. In addition, a high percentage of a company’s workforce covered under collective bargaining agreements could indicate higher risk for work stoppages or increased labor-related costs. The number and total duration of work stoppages indicate a company’s ability to manage labor relations effectively, as well as its ability to mitigate financial costs and lost revenues associated with operational disruption or downtime.

**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.

The Food Retailers & Distributors industry is exposed to environmental and social sustainability risks within the supply chain that increasingly
factor into consumers’ food purchasing decisions, and may also affect the price and availability of purchased merchandise. Companies can mitigate these risks by encouraging and engaging suppliers in sustainable production processes. Furthermore, consumers are increasingly demanding products that are sourced and produced in a sustainable manner. These factors are growth drivers within the industry and may help companies garner market share and support long-term revenue growth.

Management of Environmental & Social Impacts in the Supply Chain

Food retailers and distributors source merchandise from the agricultural sector and processed foods manufacturers. Key elements within the supply chain include environmentally and socially sustainable farming practices, animal welfare, climate change, and the product packaging lifecycle.

These are issues that, when poorly managed, can adversely affect the production and supply of food products. Companies are recognizing these risks and engaging with key suppliers to implement sustainable production practices to mitigate supply-chain risks that could affect their reputation or the cost or availability of goods. Food retail companies tend to have some control over the sourcing of products from private-label manufacturers. In addition, consumers’ growing awareness and concern over the production methods, origin, and externalities of the foods that they purchase can have significant reputational repercussions for companies and the ability to provide customers with products that meet expectations of lower environmental and social externalities is increasingly a competitive driver.

Product packaging is an additional important element of sourcing. Packaging is utilized to protect merchandise during transportation from the location of production to retail facilities. These materials are typically produced from nonrenewable petroleum and metal raw materials, or renewable wood-fiber-based materials. The production of packaging materials can contribute to environmental externalities, while packaging is also a significant contributor to landfill waste and persistent waste in the environment. Additionally, packaging weight and size can affect the efficiency of transportation of products, potentially contributing to GHG emissions. Food retailers and distributors purchase many prepackaged goods and thus do not have direct control over what type or amount of packaging materials are utilized. Companies typically have limited degree of control over private label packaging as well. However, companies may be able to influence their suppliers’ packaging decisions through purchasing power and engagement, while food retailers may be directly responsible for the end-of-life of many secondary and tertiary packaging materials.\footnote{Secondary packaging is the middle layer of packaging, such as a cardboard box containing identical products. Tertiary packaging, or transport packaging, facilitates the handling of multiple secondary packages and includes pallets and shrink wrap.}

Packaging optimization and packaging produced from renewable materials could lower the externalities associated with packaging production, transportation, and disposal. Financial benefits include transportation fuel cost savings. Lower product purchase costs if packaging or transportation cost savings at suppliers are passed on to retailers, and potential reputational benefits from using more sustainable packaging materials.

Food retail companies that can mitigate potential supply-chain risks through strong supplier...
engagement and product selection can secure stable supplies of products that meet consumer preferences, allowing them to garner market share and access new markets. The industry can address product supply risks by vetting suppliers’ production methods, implementing sustainable-sourcing guidelines, and refining the transparency of supply-chain sustainability for the benefit of consumers and 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):

- Discussion of strategy to manage environmental and social risks within the supply chain;
- Revenue from products third-party-certified to an environmental and/or social sustainability sourcing standard;
- (1) Percentage of eggs sold from cage-free sources and (2) percentage of pork sold from gestation-crate-free sources; and
- Description of strategies to reduce the environmental impact of packaging.

Evidence

Food retail companies are faced with sustainability challenges in the supply chain that can affect the availability and prices of purchased goods as well as consumers’ perception of the industry. Companies have moved to address such risks through implementing supplier sourcing guidelines and merchandise purchasing decisions.

Companies have implemented broad sourcing guidelines to minimize a number of possible sustainability externalities in their supply chains. For example, Kroger has identified “High Impact Commodities” that have the potential for significant social, environmental, or economic impacts during production or processing, which include seafood, dairy, palm oil, and flowers. Kroger acknowledges that demand for these commodities is on the rise despite these potential adverse externalities. In response, the company has worked with suppliers to attempt to source these high-impact items from certified sources. For example, by 2015, the company hopes to source all its top 20 wild-caught fish species from Marine Stewardship Council–certified fisheries. The company is also working with foreign fisheries, including the suppliers of the company’s private-label tuna products, to reduce the environmental externalities of fish farming practices. The company will also use only certified palm oil in all its private-label products beginning in 2015. Much of the world’s palm oil is sourced from Southeast Asia, and the production of palm oil in the region is associated with social concerns. Palm oil production has also been linked to deforestation.

Similarly, Safeway has developed supplier sustainability guidelines for its private-label items that cover issues including environmental externalities, energy and water consumption, packaging, animal welfare, fair trade, labor standards, and indigenous people’s rights.

The increased demand for organically produced foods and the growth of that market segment, as discussed earlier, is another driver of company action on social and environmental issues in the supply chain and sourcing of products. Consumers are increasingly attracted to organic foods because of the relatively more benign potential environmental and social externalities of organic food production. In response, top food retailers have improved their communications with customers surrounding sustainability issues in the supply chain. In September 2013, Whole Foods announced the development of a proprietary index for rating the performance on key sustainability issues of the production of fresh produce and flowers. Among the factors
evaluated for flowers are farmer welfare, pest management, pollinator protection, water conservation, soil health, biodiversity, waste generation, energy use, and climate impact. The company gives products in the fresh produce and floral departments an overall mark of “good,” “better,” or “best,” depending on the results of each product’s evaluation. To respond to customer demand, Kroger and other companies have increased offerings of products certified to environmental and social standards, including the Rainforest Alliance and Fair Trade. Rainforest Alliance certification combines a number of different respected sustainability standards for forest- and farm-management practices designed to protect various aspects of farmer livelihoods and the environment. Fair Trade certification implies that companies help farmers in developing nations access international markets and promote sustainable cultivation. Fair Trade certifications are issue for products including coffee, tea, and chocolate. These commodities are susceptible to fierce price competition, which may otherwise exclude some farmers in developing nations.

Consumers are also trending toward purchasing locally sourced products. Sourcing food from local farmers can reduce environmental and social externalities of food production and transportation. Markets selling locally sourced produce have shown increasing sales growth in recent years. The industry may be attempting to access this new market. Across its network of stores, Whole Foods purchased approximately 25 percent of its produce from local farms in 2013. The company discusses the benefits of local sourcing in its financial disclosure: “Buying local allows us to offer our shoppers the freshest, most flavorful pick of seasonal products; it bolsters local economies by keeping money in the pockets of community growers; and it contributes to responsible land development and the preservation of viable green spaces.” The company also expanded its loan program to local producers from $10 million to $25 million. This program is designed to help local farmers purchase equipment and supplies, which can support the company’s supply of locally grown produce.

Shareholder resolutions filed with companies suggest investor interest in social issues and risks within the industry’s supply chain. In 2014, Kroger shareholders filed a resolution requesting that the company publish a company-wide Human Rights Policy, stating, “Kroger’s business exposes it to significant human rights risks. As of year-end 2012, Kroger operations, including supermarkets, convenience and jewelry stores, are located in over 40 states, with suppliers in countries around the world, including Iran, China and Malaysia. The company’s supply chain is complex and global.” Approximately 38 percent of shareholder votes were in favor of the proposal. Similar resolutions have been filed with other companies, such as Sysco and Safeway.

Furthermore, the industry has responded to consumer concern for the welfare of animals used in food production. For example, Safeway offers two lines of eggs, O Organics and Open Nature Cage Free, which are certified humane by the animal-welfare-certification organization Humane Farm Animal Care. Approximately 20 percent of the eggs that the company sells are certified cage-free or organic. Kroger, too, is addressing consumer-driven industry trends toward improving animal welfare. Kroger requires its suppliers to meet the Food Marketing Institute’s animal welfare standards, and it convenes an independent panel to review its suppliers’ compliance with the standards and to make recommendations for improvement. The
company, which acknowledges that the industry is moving away from the use of gestation crates during sow raising, has consulted with its suppliers over their progress toward gestation-crate-free housing and encourages its suppliers to accelerate the change. 202

Agricultural products, including crops and animal products, which are sold fresh or used to manufacture and sell processed foods, are directly influenced by climate change. This can affect the Food Retailers & Distributors industry’s merchandise supply and purchase price. Although the impacts of climate change are highly variable, agricultural production is expected to be adversely impacted over time, including through reduced crop yields. 203 This can affect crop prices. Studies published by the Institute of Development Studies, the International Food Policy Research Institute, and the U.N. Food and Agriculture Organization predict that changes in expected average temperature and precipitation worldwide will be significant drivers of rising market prices for the staple crops maize, rice, and wheat in the next 20 years. 204

Higher agricultural product prices due to climate effects on cultivation can directly raise purchasing costs for food retailers. These higher costs may be, in part, borne by consumers, which could lower demand for the industry’s products and services, particularly higher-priced items. The USDA estimated that retail food prices in the U.S. will rise by 3.5 percent in 2014, the largest increase in three years, due in part to drought in the U.S. and elsewhere. 205 Companies are beginning to assess potential supply-chain risks due to climate change. Asda Stores, a food retailer in the U.K., conducted an analysis, published in 2014, of the susceptibility of the company’s produce supply to climate change. The company found that about 95 percent of its produce supply was at risk for climate change impacts, including drought. These effects could reduce the availability of some products in the future. The company has already considered the possible benefits of engaging suppliers in growing produce where it is suitable, and it has invested in transforming suppliers’ water infrastructure to improve water efficiency in order to mitigate some of the possible effects of climate change. 206

In addition, crop production and animal farming are major contributors to global GHG emissions through land-use changes, including deforestation, crop burning, the application of fertilizers, and animal waste. 207 The broader agricultural sector, including livestock production, is the largest contributor to non-CO₂ anthropogenic GHG emissions, generating about 54 percent of such emissions in 2005 globally. 208 Methane and nitrous oxide are the primary GHGs generated from agriculture and are, respectively, 25 times and 310 times more potent GHGs than CO₂. 209 Long-term demands for increased food production are likely to require increases in cultivated land and intensive agricultural practices, thereby increasing agriculture-related GHG emissions. Thus, food production itself can contribute to climate change, which, in turn, adversely impacts food production, creating a long-term negative feedback loop.

Corporate SEC disclosures allude to the financial risks caused by climate change. Cencosud, a Chilean food and diversified goods retailer, stated in its FY2014 Form 20-F, “There are indicators of a current climate change happening worldwide. Changes in temperatures and precipitation patterns may negatively affect the capacity of certain regions to produce fresh products such as fresh fruits and vegetables and dairy products . . . As we source part of our fresh products from local producers, such changes in climate could impair or limit our ability to source such products, thus affecting our capacity to offer the full
assortment of products that we normally carry. Any such disruption could have a material adverse effect on us.”

Shareholder resolutions filed with companies suggest investor interest in climate change impacts within the food supply chain. In 2010, shareholders filed a resolution asking Kroger to “assess and manage the impacts of climate change on the corporation, with specific regard to its supply chain, and plans to disclose such information through public reporting mechanisms.” Approximately 40 percent of shareholder votes were in favor of the proposal.

Packaging is widely used by manufacturers and retail companies to protect and preserve merchandise. Food retailers generate packaging waste at retail and distribution facilities as merchandise is unpacked from shipping packaging and shelved. In addition, packaging can contribute to product transportation fuel consumption and efficiency, affecting the cost of goods sold. Packaging optimization to reduce the weight and volume of packaging can contribute to cost savings. An Accenture study of diversified retail companies estimates that green packaging initiatives can save companies between 3 to 5 percent of their packaging and shipping costs.

Lightweighting and size optimization of packaging can lower companies’ costs of shipping goods from their distribution centers to their stores or to their customers. Less packaging also can decrease the cost of the good, which can mean a lower purchase cost for the retailer, as well as allowing more goods to be placed on retail shelves. A mandated 5 percent reduction in packaging across all product categories from 2008 levels saves Walmart, the world’s largest grocer, an estimated $3.4 billion annually through lower shipping and materials costs.

The use of recycled packaging materials can reduce the potential environmental externalities from packaging production, transportation, and waste, possibly lowering purchasing and transportation costs and providing reputational benefits as companies satisfy customer demand for less impactful packaging. Shareholder resolutions at major food retailers illustrate investor interest in the topic. In 2015, shareholders of Kroger filed a resolution requesting that the company conduct an assessment of the environmental impacts from utilizing non-recyclable packaging materials. The resolution cited the potential for harm to wildlife of persistent packaging such as plastics and encouraged the company to utilize easily recyclable materials. Kroger stated in its proxy filing that it continues to improve the recyclability of its corporate branded products. The resolution garnered nearly 32 percent of votes in favor.

In 2014, As You Sow, an organization that promotes environmental and social corporate responsibility, filed a resolution with Safeway requesting that the company produce a policy on the company’s responsibility for postconsumer product packaging of its private-label products. The company has made strides to improve the recyclability of its packaging. For example, in March 2015, Safeway joined the 100 percent recycled paperboard program certified by the Recycled Paperboard Alliance (RPA) in an effort to utilize more environmentally responsible packaging. The company will use the RPA logo on its private-label products. In addition, as part of its goal to achieve zero operational waste, Safeway redesigned the packaging of some of its private-label items to be more easily compostable or recyclable.

**Value Impact**

Increasing consumer demand for sustainably sourced and produced foods underscores the
importance of supplier management and engagement on key environmental and social issues, as well as the selection of sustainably-produced products for stocking in stores. Through such strategies, companies may experience increased revenues and market share from being able to access new markets and meet evolving consumer preferences. In addition, companies associated with strong environmental and social performance in the supply chain, including product packaging, can benefit from enhanced brand reputation, which can positively impact revenue growth and cash flows. Companies may be able to achieve higher margins on certain products produced in a more environmentally and socially sustainable manner. Supplier performance on environmental and social issues could also result in operational challenges that may harm a company’s supply, which could increase cost of goods sold, lowering operating margins.

Additionally, climate change presents a long-term, chronic risk to the industry’s ability to source products and may contribute to rising volatility in the purchase prices of merchandise. These effects can lower margins and profitability. Companies that are able to successfully adapt to climate change challenges in their supply chains are more likely to achieve competitive advantage and strengthen their risk profiles, resulting in a positive long-term impact on their costs of capital.

The probability and magnitude of the impacts associated with this issue will increase with intensifying impacts from climate change and with consumers increasingly demanding more information about the environmental and social impacts of the products they consume.

The discussion of a company’s strategy to manage environmental and social risks within the supply chain provides information on its internal approach to mitigate these risks and potential exposure. The share of revenues from products certified to third-party environmental and social standards is indicative of a company’s ability to profit from consumer trends favoring sustainably-produced products. It also indicates suppliers’ exposure to sustainability risks that could affect the price and availability of products or have reputational impacts. The percentage of eggs sold from cage-free sources and percentage of pork sold from gestation-crate-free sources provides information on a company’s ability to meet customer demand for animal products produced utilizing these techniques and mitigate possible reputational impacts. The description of strategies to reduce the environmental impact of packaging shows how a company may benefit from reduced packaging and transportation costs and improved brand reputation and value.
APPENDIX I
FIVE REPRESENTATIVE FOOD RETAILERS & DISTRIBUTORS COMPANIES

<table>
<thead>
<tr>
<th>COMPANY NAME (TICKER SYMBOL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kroger Co. (KR)</td>
</tr>
<tr>
<td>Sysco Corp. (SYY)</td>
</tr>
<tr>
<td>Supervalu (SVU)</td>
</tr>
<tr>
<td>Whole Foods Market (WFM)</td>
</tr>
<tr>
<td>United Natural Foods (UNFI)</td>
</tr>
</tbody>
</table>

This list includes five companies representative of the Food Retailers & Distributors industry and its activities. This includes only companies for which the Food Retailers & Distributors 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 September 18, 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>Air Emissions from Refrigeration</td>
<td>70*</td>
<td>94</td>
<td>6</td>
</tr>
<tr>
<td>Energy &amp; Fleet Fuel Management</td>
<td>97*</td>
<td>94</td>
<td>4t</td>
</tr>
<tr>
<td>Food Waste Management</td>
<td>70*</td>
<td>100</td>
<td>2</td>
</tr>
<tr>
<td>Data Security</td>
<td>55</td>
<td>82</td>
<td>8</td>
</tr>
<tr>
<td>Food Safety</td>
<td>90*</td>
<td>94</td>
<td>1</td>
</tr>
<tr>
<td>Product Health &amp; Nutrition</td>
<td>97*</td>
<td>94</td>
<td>3</td>
</tr>
<tr>
<td>Product Labeling &amp; Marketing</td>
<td>43</td>
<td>94</td>
<td>5</td>
</tr>
<tr>
<td>Fair Labor Practices</td>
<td>95*</td>
<td>85</td>
<td>7</td>
</tr>
<tr>
<td>Management of Environmental &amp; Social Impacts in the Supply Chain</td>
<td>80*</td>
<td>94</td>
<td>4t</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 to likely 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. One 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 on 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></td>
<td>Cost of Revenue</td>
<td>R&amp;D</td>
</tr>
<tr>
<td>Market Share</td>
<td>New Markets</td>
<td>Pricing Power</td>
<td></td>
</tr>
</tbody>
</table>

- **Air Emissions from Refrigeration**
  - Revenue: •
  - Operating Expenses: •
  - Non-operating Expenses: •
  - Assets: •
  - Liabilities: •
  - Cost of Capital: •
  - Industry Divestment Risk: •

- **Energy & Fleet Fuel Management**
  - Revenue: •
  - Operating Expenses: •
  - Non-operating Expenses: •
  - Assets: •
  - Liabilities: •
  - Cost of Capital: •
  - Industry Divestment Risk: •

- **Food Waste Management**
  - Revenue: •
  - Operating Expenses: •
  - Non-operating Expenses: •
  - Assets: •
  - Liabilities: •
  - Cost of Capital: •
  - Industry Divestment Risk: •

- **Data Security**
  - Revenue: •
  - Operating Expenses: •
  - Non-operating Expenses: •
  - Assets: •
  - Liabilities: •
  - Cost of Capital: •
  - Industry Divestment Risk: •

- **Food Safety**
  - Revenue: •
  - Operating Expenses: •
  - Non-operating Expenses: •
  - Assets: •
  - Liabilities: •
  - Cost of Capital: •
  - Industry Divestment Risk: •

- **Product Health & Nutrition**
  - Revenue: •
  - Operating Expenses: •
  - Non-operating Expenses: •
  - Assets: •
  - Liabilities: •
  - Cost of Capital: •
  - Industry Divestment Risk: •

- **Product Labeling & Marketing**
  - Revenue: •
  - Operating Expenses: •
  - Non-operating Expenses: •
  - Assets: •
  - Liabilities: •
  - Cost of Capital: •
  - Industry Divestment Risk: •

- **Fair Labor Practices**
  - Revenue: •
  - Operating Expenses: •
  - Non-operating Expenses: •
  - Assets: •
  - Liabilities: •
  - Cost of Capital: •
  - Industry Divestment Risk: •

- **Management of Environmental & Social Impacts in the Supply Chain**
  - Revenue: •
  - Operating Expenses: •
  - Non-operating Expenses: •
  - Assets: •
  - Liabilities: •
  - Cost of Capital: •
  - Industry Divestment Risk: •

| MEDIUM IMPACT | HIGH IMPACT |
### APPENDIX III: Sustainability Accounting Metrics | Food Retailers & Distributors

<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>Air Emissions from</strong></td>
<td>Gross global Scope 1 emissions from refrigerants</td>
<td>Quantitative</td>
<td>Metric tons CO2-e</td>
<td>CN0401-01</td>
</tr>
<tr>
<td><strong>Refrigeration</strong></td>
<td>Percentage of refrigerants consumed with zero ozone-depleting potential</td>
<td>Quantitative</td>
<td>Percentage (%) by weight</td>
<td>CN0401-02</td>
</tr>
<tr>
<td></td>
<td>Average refrigerant emissions rate</td>
<td>Quantitative</td>
<td>Percentage (%)</td>
<td>CN0401-03</td>
</tr>
<tr>
<td><strong>Energy &amp; Fleet Fuel</strong></td>
<td>Operational energy consumed, percentage grid electricity, percentage renewable energy</td>
<td>Quantitative</td>
<td>Gigajoules (GJ), Percentage (%)</td>
<td>CN0401-04</td>
</tr>
<tr>
<td><strong>Management</strong></td>
<td>Fleet fuel consumed, percentage renewable</td>
<td>Quantitative</td>
<td>Gigajoules (GJ), Percentage (%)</td>
<td>CN0401-05</td>
</tr>
<tr>
<td><strong>Food Waste Management</strong></td>
<td>Amount of food waste generated, percentage diverted from the waste stream</td>
<td>Quantitative</td>
<td>Metric tons (t), Percentage (%)</td>
<td>CN0401-06</td>
</tr>
<tr>
<td><strong>Data Security</strong></td>
<td>Discussion of management approach to identifying and addressing data security risks</td>
<td>Discussion and Analysis</td>
<td>n/a</td>
<td>CN0401-07</td>
</tr>
<tr>
<td></td>
<td>Number of data security breaches, percentage involving customers’ personally identifiable information (PII), number of customers affected*</td>
<td>Quantitative</td>
<td>Number, Percentage (%)</td>
<td>CN0401-08</td>
</tr>
<tr>
<td><strong>Food Safety</strong></td>
<td>High-risk food safety violation rate</td>
<td>Quantitative</td>
<td>Rate</td>
<td>CN0401-09</td>
</tr>
<tr>
<td></td>
<td>Number of food-safety-related recalls, number of units recalled, percentage for private-label products**</td>
<td>Quantitative</td>
<td>Number, Percentage (%)</td>
<td>CN0401-10</td>
</tr>
<tr>
<td><strong>Product Health &amp; Nutrition</strong></td>
<td>Revenue from products labeled and marketed to promote health and nutrition attributes</td>
<td>Quantitative</td>
<td>U.S. Dollars ($)</td>
<td>CN0401-11</td>
</tr>
<tr>
<td></td>
<td>Description of the process to identify and manage products and ingredients of concern and emerging dietary preferences</td>
<td>Discussion and Analysis</td>
<td>n/a</td>
<td>CN0401-12</td>
</tr>
</tbody>
</table>

*Note to CN0401-08—Disclosure shall include a description of corrective actions implemented in response to data security incidents or threats.

**Note to CN0401-10—The registrant shall discuss notable recalls such as those that affected a significant number of customers or those related to serious illness, injury, or fatality.
APPENDIX III: Sustainability Accounting Metrics | Food Retailers & Distributors (cont.)

<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>Product Labeling &amp; Marketing</strong></td>
<td>Notices of violations received for non-conformance with regulatory labeling and/or marketing codes</td>
<td>Quantitative</td>
<td>Number</td>
<td>CN0401-13</td>
</tr>
<tr>
<td></td>
<td>Amount of legal and regulatory fines and settlements associated with food marketing and/or labeling*</td>
<td>Quantitative</td>
<td>U.S. Dollars ($)</td>
<td>CN0401-14</td>
</tr>
<tr>
<td></td>
<td>Revenue from products labeled as (1) containing genetically modified organisms (GMOs) and (2) non-GMO</td>
<td>Quantitative</td>
<td>U.S. Dollars ($)</td>
<td>CN0401-15</td>
</tr>
<tr>
<td><strong>Fair Labor Practices</strong></td>
<td>Average hourly wage and percentage of in-store employees earning minimum wage</td>
<td>Quantitative</td>
<td>U.S. Dollars ($), Percentage (%)</td>
<td>CN0401-16</td>
</tr>
<tr>
<td></td>
<td>Percentage of active workforce covered under collective bargaining agreements</td>
<td>Quantitative</td>
<td>Percentage (%)</td>
<td>CN0401-17</td>
</tr>
<tr>
<td></td>
<td>Number and total duration of work stoppages**</td>
<td>Quantitative</td>
<td>Number, Days</td>
<td>CN0401-18</td>
</tr>
<tr>
<td></td>
<td>Amount of legal and regulatory fines and settlements associated with (1) labor law violations and (2) employment discrimination**</td>
<td>Quantitative</td>
<td>U.S. Dollars ($)</td>
<td>CN0401-19</td>
</tr>
<tr>
<td><strong>Management of Environmental &amp; Social Impacts in the Supply Chain</strong></td>
<td>Discussion of strategy to manage environmental and social risks within the supply chain</td>
<td>Discussion and Analysis</td>
<td>n/a</td>
<td>CN0401-20</td>
</tr>
<tr>
<td></td>
<td>Revenue from products third-party certified to an environmental and/or social sustainability sourcing standard</td>
<td>Quantitative</td>
<td>U.S. Dollars ($)</td>
<td>CN0401-21</td>
</tr>
<tr>
<td></td>
<td>(1) Percentage of eggs sold from cage-free sources and (2) percentage of pork sold from gestation-crate-free sources****</td>
<td>Quantitative</td>
<td>Percentage (%) by revenue</td>
<td>CN0401-22</td>
</tr>
<tr>
<td></td>
<td>Description of strategies to reduce the environmental impact of packaging</td>
<td>Discussion and Analysis</td>
<td>n/a</td>
<td>CN0401-23</td>
</tr>
</tbody>
</table>

* Note to CN0401-14—Disclosure shall include a description of fines and settlements and corrective actions implemented in response to events.

** Note to CN0401-18—Disclosure shall include a description of the root cause of the stoppage, the impact on operations, and corrective actions taken.

*** Note to CN0401-19—Disclosure shall include a description of fines and settlements and corrective actions implemented in response to events.

**** Note to CN0401-22—Disclosure shall include a description of any additional animal welfare standards used by the registrant.
APPENDIX IV: Analysis of SEC Disclosures | Food Retailers & Distributors

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

<table>
<thead>
<tr>
<th>Food Retailers &amp; Distributors</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
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<tbody>
<tr>
<td>Air Emissions from Refrigeration</td>
<td>94%</td>
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<tr>
<td>Energy &amp; Fleet Fuel Management</td>
<td>94%</td>
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<tr>
<td>Food Waste Management</td>
<td>100%</td>
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<tr>
<td>Data Security</td>
<td>82%</td>
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<tr>
<td>Food Safety</td>
<td>94%</td>
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<tr>
<td>Product Health &amp; Nutrition</td>
<td>94%</td>
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<tr>
<td>Product Labeling &amp; Marketing</td>
<td>94%</td>
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<tr>
<td>Fair Labor Practices</td>
<td>85%</td>
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<tr>
<td>Management of Environmental &amp; Social Impacts in the Supply Chain</td>
<td>94%</td>
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</tbody>
</table>

IWG Feedback*

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

Note: The IWG score for the “Fair Labor Practices” topic is the average of the scores for the “Labor Relations & Fair Wages” and “Workforce Diversity & Inclusion” IWG issues. These were merged after Public Comment Period.
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3 Data from Bloomberg Professional service, accessed June 30, 2015, using the ICS <GO> command. The data represents global revenues of companies listed on global exchanges and traded over the counter from the Food Retailers & Distributors SICs industry, using Level 4 of the Bloomberg Industry Classification System.
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6 Ibid., p. 20.
18 Author’s calculation based on data from Bloomberg Professional service, accessed June 30, 2015, using Equity Screen (EQS) for U.S.-listed companies and those traded primarily over the counter (OTC) that generate at least 20 percent of revenue from their Food Retailers & Distributors segment and for which Food Retailers & Distributors is a primary SICS industry.
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Ibid.


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Author’s calculation.


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