Air Freight & Logistics Research Brief

SASB's Industry Brief provides evidence for the material sustainability issues in the Air Freight & Logistics 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 material sustainability issue (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 sustainability issues likely to be material for companies within a given industry. However, the final determination of materiality is the onus of the company.

Related Documents

- Air Freight & Logistics Sustainability Accounting Standards
- Industry Working Group Participants
- SASB Conceptual Framework

INDUSTRY LEAD

Nashat Moin

CONTRIBUTORS

Andrew Collins
Henrik Cotran
Anton Gorodniuk
Jerome Lavigne-Delville
Himani Phadke
Arturo Rodriguez
Jean Rogers
Gabriella Vozza

SASB, Sustainability Accounting Standards Board, the SASB logo, SICS, Sustainable Industry Classification System, Accounting for a Sustainable Future, and Materiality Map are trademarks and service marks of the Sustainability Accounting Standards Board.
INTRODUCTION

The Air Freight & Logistics industry plays a vital role in today’s global economy, providing end-to-end logistics solutions across various modes of transport. Industry players are also disrupting the traditional government postal services by providing efficient and timely deliveries across the globe. Through the use of contractors, the industry can increase the speed of its services and extend its reach to all corners of the globe. The industry is essential in facilitating global trade and efficient exchange of goods.

Another common thread for companies in this industry is reliance on fossil fuels for transportation, either directly through the use of fuels in company fleets or indirectly through purchase of transportation services from asset-based contractors. Additionally, the industry’s heavy reliance on contractors raises many supply chain issues, including the risk of misclassifying workers. In this fast-paced world, industry players are required to ably transport goods within limited timeframes, and, accidents are inherently linked with efficiency. Together with greater public concern about the environmental and health impacts of transportation, labor, and safety concerns are putting the sector under regulatory scrutiny.

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

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

Specifically, performance on the following sustainability issues will drive competitiveness within the Air Freight & Logistics industry:

• Reducing greenhouse gas and other air emissions, particularly through fuel management strategies;
• Ensuring compliance with fair labor standards regulations and minimum wage laws through accurate classification of contractors;
• Maintaining a safety culture, which is essential for reducing accidents and cost to the environment and society; and
• Managing supply chains to reduce environmental and social impacts and protect company value.

INDUSTRY SUMMARY

Air Freight & Logistics (AFL) companies provide freight services and transportation logistics. There are three main industry segments: air freight transportation, post and courier services, and
transportation logistics services. Transportation logistics services include contracting with road, rail, marine, and air freight companies to select and hire appropriate transportation. Services can also include customs brokerage, distribution management, vendor consolidation, cargo insurance, purchase order management, and customized logistics information.

Some companies in the industry earn 100 percent of their revenue from one of the three industry segments - transportation logistics services company CH Robinson, for example - or they may participate in all three aspects of the industry (air freight, post and courier, and transportation logistics) like FedEx and UPS. FedEx and UPS also make up most of the air freight market for U.S. publicly-traded companies. Other participants in the segment include carriers that generate a majority of their revenue from air freight.

AFL companies serve customers in every industry. All three industry segments derive a majority of their income from providing services to other businesses. Post and courier services companies also provide direct services to retail customers. Companies in this industry are truly global, with services in almost all countries and offices across the continents. For example, Atlas Air has regional sales offices covering the Americas, Europe, Africa, the Middle East and the Asia Pacific regions. Similarly, FedEx, C.H. Robinson, and other major players have developed global transportation and distribution networks to provide services worldwide. Business is conducted out of branch locations as well as through e-commerce websites.

Total global industry revenue is $820 billion, 56 percent of which comes from transportation logistics services, 38 percent from post and courier services, and the remaining 6 percent from air freight transportation. Demand for both the air freight and transportation logistics segments is driven by general GDP growth and the need for global trade flows. E-commerce is driving growth in the post and courier services segment. On the one hand, electronic communication is reducing demand for document delivery. On the other, there has been a great shift towards online purchases, which raises the demand for delivery services.

Companies in the industry range from asset heavy to non-asset based. The air freight and post and courier services companies own and operate much of their fleet. Those providing freight forwarding services, including most or all of the transportation logistics companies, are generally non-asset based. They contract with companies in the airline, air freight, road, rail, and marine transportation industries. For companies that own and operate transportation and distribution assets, fuel is one of the biggest operating expenses. For example, Atlas Air, the largest U.S.-listed air freight company, reports fuel costs of around 30 percent of operating expenses. Other significant costs for the company include employee compensation and maintenance. For FedEx, the largest expense in 2014 was employee compensation (36.3 percent of revenue), followed by ‘purchased transportation’ (17.6 percent), and fuel (10 percent), as reported in its FY2014 Form 10-K. High purchased transportation costs indicate utilization of third-party transportation providers and expansion of freight-forwarding services. On the other hand, for C.H. Robinson, which is non-asset based, purchased transportation is by far the largest cost component at 77.5 percent of total costs and expenses. Median operating and net income
Margins for companies in the AFL industry are at 5.86 percent and 3.46 percent, respectively. \textsuperscript{13}

Purchased transportation costs can be a significant expense for freight-forwarders. AFL companies utilize contractors to provide complete end-to-end solutions for their customers’ logistics needs. The use of contractors is essential for the provision of intermodal services and to maintain flexibility and reach. As such contractor management is an important issue.

The AFL industry has different concentrations across its segments. While only four air freight companies are listed on U.S. exchanges, they compete with commercial airlines and privately held companies for cargo. FedEx and UPS are major players in the post and courier services segment, where, together with Yamato Holdings, they hold over 32 percent of market share in that segment. The transportation logistics segment has fairly low concentration. \textsuperscript{14}

This brief discusses the sustainability topics that are applicable to most companies in the AFL industry. However, the services provided, and business model of a particular company, will drive which issues are most important to their operations. For example, a company that derives 100 percent of its revenue from air freight will face a different subset of issues than a company that earns all its revenue from transportation logistics.

### LEGISLATIVE AND REGULATORY TRENDS IN THE AIR FREIGHT & LOGISTICS INDUSTRY

Due to the intermodal nature of this industry, companies are regulated by different agencies, depending on the services provided and vehicles owned. Post and courier companies and some transportation logistics companies operate truck fleets. Air freight and courier companies manage aircraft fleets to move their shipments. Finally, transportation logistics companies may not own any vehicle fleets and operate solely through subcontractors. Since companies may fall into one or more of these categories, there are several different combinations of regulations that may apply to a company in the AFL industry. This section provides a brief summary of key regulations and legislative efforts related to this industry.\textsuperscript{8}

Some regulations cover the industry universally, including the Occupational Safety and Health Act (OSHA) for employee health and safety standards. The Fair Labor Standards Act (FLSA) governs minimum wages, overtime pay, recordkeeping, and youth employment standards for all private and public sector workers and individual workers who are engaged in commerce.\textsuperscript{15} Individual states also have laws governing the classification of workers. For example, in California, determination of contractor status depends on, among other things, the degree of control over the contracted work, whether the contracted work is part of the regular business, the length of time for which the services are to be performed, and the degree of permanence of the working relationship.\textsuperscript{16}

Additionally, the Environmental Protection Agency’s (EPA) regulations under the Clean Air Act (CAA) and Clean Water Act (CWA) address the environmental impacts of operating facilities and automotive vehicles. The CWA addresses point source pollutants associated with industrial and hazardous waste related to operating and maintaining vehicle fleets. The CAA gives the EPA oversight on vehicle emissions, including hazardous air pollutants (HAPs).

\textsuperscript{1} 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.
criteria air pollutants (CAPs), and volatile organic compounds (VOCs).

There are EPA regulations that apply specifically to road freight operators. Under President Obama’s direction, the EPA and the National Highway Traffic Safety Administration (NHTSA) have adopted strict emissions standards for heavy-duty commercial trucks built between 2014 and 2018 to reduce U.S. greenhouse gas emissions. The regulations will require heavy-duty trucks to meet targets for gallons of fuel consumed and GHG emissions per ton-mile. The standards vary according to truck type and size.17, 18

For companies operating road fleets, the Federal Motor Carrier Safety Administration (FMCSA) is the primary road safety regulatory agency. On July 1, 2013, new FMCSA rules went into effect that reduced drivers’ weekly drive times by 12 hours and required regular 34-hours rest breaks. This regulation contributes to an already strained trucking labor market and may raise wage costs for trucking companies.19 In addition to trucker health and safety, the FMCSA governs the transportation of hazardous materials (hazmat) such as petroleum and chemicals.

Air freight and courier companies operating aircraft fleets are regulated under the Federal Aviation Act of 1958, which gives both the Federal Aviation Administration (FAA) and the U.S. Department of Transportation (DOT) regulatory authority over air freight companies. The FAA regulatory authority covers operational aspects of air transportation, including aircraft standards and maintenance, pilot training and work hours, and ground facilities. Air freight companies must maintain air carrier certificates granted by the FAA. The certificates require companies to maintain standards of safety and meet operational requirements.20

In December 2011, the FAA introduced new pilot fatigue requirements to significantly reduce the number of hours on duty. While all-cargo carriers are currently exempt, the regulation is likely to have a material effect on logistics companies by adding to the shortage of qualified pilots faced by all air carriers. And while the exemption was reconfirmed in December 2012, the Air Line Pilots Association and the Independent Pilots Association, which represents UPS pilots, are pushing Congress to extend the requirements to cargo pilots.21

Another organization whose standards can influence airline profitability is the United Nations’ International Civil Aviation Organization (ICAO). The ICAO is represented by 191 members and develops international Standards and Recommended Practices (SARPs) that are further used by member countries to develop national civil aviation regulations.22 The ICAO’s Annex 18 sets down standards for “Safe Transport of Dangerous Goods by Air.” Air carriers are required to have inspection and enforcement procedures to ensure compliance with Annex 18.23 In April 2014, the ICAO Dangerous Goods Panel (DGP) proposed to restrict transportation of lithium metal batteries to cargo aircraft only. If the proposal is approved by the ICAO Council, the changes will become effective starting January 2015.24

Due to the relatively high carbon intensity associated with aircraft operations, the aviation industry has been the target of environmental regulations addressing climate change, both in the U.S. and internationally. The CAA gives the EPA the authority to determine whether carbon emissions from aircraft operations endanger society, an important first step in the government’s regulation of carbon emissions.25 The EPA is currently conducting an endangerment report whose findings will determine whether the EPA will regulate aviation emissions in the same way it does passenger cars and trucks.26
In 2012, the European Union (E.U.) moved to include aviation in its emissions trading system (ETS) by establishing limits on carbon emissions and introducing allowances and fees on flights to, from, and within the European Economic Area (EEA). However, resistance from several countries, including the U.S., caused the E.U. to postpone enforcement on international flights until November 2013, in the hope of creating a global market-based solution through the UN’s ICAO. The legislation has since been amended for the period 2013-2016 and only emissions from flights within the EEA currently fall under the E.U. ETS. The decision was driven by the ICAO Assembly agreement in October 2013 to “develop a global market-based mechanism addressing international aviation emissions by 2016 and apply it by 2020.”

SUSTAINABILITY-RELATED RISKS AND OPPORTUNITIES

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

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

- **Environmental externalities associated with fuel use**: U.S. and international regulators have put the transportation sector under scrutiny due to the sector’s contribution to global GHG emissions and other air pollutants.

- **Key role in the global transportation network**: As the industry serves all other business sectors, there is a great need for efficiency and on-time deliveries. Therefore, safety management is important not only to limit harm to the environment and society, but also to minimize delays and property damage.

- **Use of common resources**: AFL companies and their contractors’ use of various common capitals like natural resources (fossil fuels), public infrastructure (ports, roads, and bridges), and human capital (labor) drives both its sustainability impacts and, consequently, impacts on its value through regulations or public reaction.

As described above, the regulatory and legislative environment surrounding the AFL industry emphasizes the importance of sustainability management and performance. Specifically, recent trends suggest a regulatory emphasis on environmental protection and safety, which will serve to align the interests of society with those of investors.

The following section provides a brief description of each sustainability issue that is likely to have material implications for companies in the AFL 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. It also based on the results of consultation with experts participating in an industry-working group convened by SASB.
A summary of the recommended disclosure framework and accounting metrics appears in Appendix III. The complete SASB standards for the industry, including technical protocols, can be downloaded from www.sasb.org. Finally, Appendix IV provides an analysis of the quality of current disclosure on these issues in SEC filings by the leading companies in the industry.

ENVIRONMENT

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

The AFL industry faces risks and opportunities related to its environmental impacts, particularly from expanding climate regulations. Regulatory costs associated with greenhouse gas emissions and air pollutants are threatening the industry’s profit margins. However, optimizing fuel management through technology innovation offers an opportunity to reduce operating costs.

Environmental Footprint of Fuel Use

Asset-based companies in the AFL industry generate direct greenhouse gas emissions that contribute to climate change and air pollutants that threaten human health. Emissions are generated from fuel combustion by both air and road freight operations. In addition to contributing to climate change through greenhouse gas emissions, road freight has a more localized negative effect on air quality. In contrast, air freight makes a more potent contribution to climate change given the altitude of the emissions.

Road transportation of freight generates air emissions mainly from the combustion of diesel in engines. Greenhouse gases, including carbon dioxide and nitrous oxide, are of particular importance to government regulators concerned about climate change. Furthermore, emission of sulfur oxides (SOx), nitrogen oxides (NOx), and particulate matter are of concern for their impacts on the environment and on human health. The main sources of greenhouse gas emissions for air freight companies are aircraft, ground equipment, and facility electricity. Aircraft emissions are the largest contributor to airlines’ total emissions; therefore, fuel management is a critical part of reducing their carbon footprint.

There are various regulations aimed at reducing emissions from vehicles and aircraft. These include the On-Road Heavy-Duty Diesel Vehicles regulation in California, which requires truck and bus engines to be upgraded to meet emissions standards. In the U.S., there is a high likelihood that the EPA will impose regulations on industry emissions following recent commitments from the United Nations to move forward with a global emissions policy for the aviation industry, which includes air freight companies. With the emergence of global and regional climate regulations affecting the industry, it is important for AFL companies to proactively address their operational emissions and emissions monitoring capabilities so they are well positioned to thrive under any new regulatory requirements.

Consumer demand for low carbon or carbon neutral transportation solutions is also driving the need to reduce emissions. Fuel management addresses both fuel efficiency and emissions reduction and offers an
effective way for companies to increase profits through reduced fuel costs, while also limiting exposure to volatile fuel pricing, future regulatory costs, and other consequences of GHG emissions.

Companies can proactively manage the environmental footprint of their fuel use by increasing fuel efficiency and reducing emissions through engine or fleet upgrades, retrofits, use of cleaner burning fuels, and optimization of route efficiency that reduces distance and fuel use. For instance, the fuel efficiency of an aircraft has several drivers, including aircraft design, route selection, and load factor. While newer planes are more fuel efficient, existing planes can be retrofitted for efficiency. Adding winglets, for example, can increase fuel efficiency by 1.8 percent, and replacing an engine on an existing aircraft can improve efficiency by 15 percent. 29 30 31

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

- Gross global scope 1 emissions;
- Description of strategy to manage GHG emissions and performance against own targets;
- Total fuel consumed, percentage renewable for road and air; and
- Emissions of NOx, SOx, and PM.

**Evidence**

Transportation is a major contributor to GHG emissions, creating regulatory risks for companies owning or operating large transport fleets. 2011 EPA data shows that transportation accounted for 27 percent of U.S. GHG emissions, of which eight percent came from aviation, 18 percent from light-duty trucks, and 22 percent from medium- and heavy-duty trucks. 32 Globally, the CDP estimates that all forms of road transportation account for 80 percent of transportation emissions, while air transportation represents 13 percent. 37 Non-GHG air pollution from road transportation is also significant. According to the EPA’s National Emission Inventory, NOx emissions from heavy-duty diesel trucks alone accounted for 18 percent of U.S. NOx emissions in 2011, the single highest source. 34

Researchers at MIT’s Laboratory for Aviation and the Environment have been studying the effects of vehicle emissions on human health. In 2013, they found that ‘ground-level emissions’ from combustion engines like those in cars, ships, trains, and other vehicles caused about 200,000 premature deaths in the U.S. every year. 35 The environmental and social externalities associated with transportation are putting the industry under regulatory scrutiny.

The trucking industry, including light-, medium-, and heavy-duty trucks, contributes 40 percent of GHG emissions in the U.S. transportation industry. 36 While this percentage covers all trucks, including those covered under SASB’s Road Transportation industry, any regulation that applies to the road freight industry also covers the trucking operations of logistics companies. For example, in California, the Air Resources Board’s Truck and Bus regulation will require diesel trucks and buses to be upgraded in phases in order to reduce emissions. By 2023, nearly all trucks and buses will have to meet 2010 model year engine emissions requirements. 37 Compliance could involve high capital expenses to upgrade fleets, particularly for those with older trucks. In addition, under the Clean Air Act, the EPA is currently evaluating whether aircraft emissions endanger society, the results of which could lead to regulatory measures. 38
Climate change regulations steadily make commercial aircraft operations more costly. Even without U.S. federal regulations or a global treaty addressing climate change, there are regulations specific to certain geographic areas that can have impacts across the industry, as air freighters operate across different regions globally. In Europe, the Emissions Trading System (ETS) was launched in 2005 to mitigate climate change. The ETS covers factories, power stations, industrial plants, and all flights within the EEA.

The E.U. came close to including non-European airlines that serve Europe in their ETS in November 2012—a move that would reportedly have cost U.S. airlines $3.1 billion between now and 2020. The move was postponed in the hope that a more agreeable global market-based solution would come out of the UN ICAO (see Legislative and Regulatory Trends section). In response, the ICAO agreed to build a global market-based mechanism to monitor, report, and verify aircraft emissions by 2016. However, given that the UN’s deadline to implement the system is in 2020, the E.U. may not be satisfied and could still require non-E.U. airlines to comply with their ETS requirements.

Meanwhile, the IATA, which represents 85 percent of the world’s airline traffic, is calling for airlines to offset increased emissions after 2020 by purchasing carbon credits at about $4 to $6 per metric ton.

Depending on their operations, fuel costs can be significant for AFL companies. For Atlas Air, the largest operating expense was fuel costs of around 30 percent. While companies are able to mitigate some exposure to fuel price increases through fuel surcharges, volatile prices could materially impact companies. Companies that are able to lower fuel costs through efficiency measures will be able to offer more competitive rates to their customers, thereby increasing market share. Fuel management addresses both fuel efficiency and emissions reduction as a way to reduce costs, lower regulatory risks, and improve competitiveness in the marketplace.

Leading AFL companies are disclosing this issue in their SEC filings, indicating its importance to companies in the industry. In particular, FedEx and UPS provide detailed information on some of their initiatives to manage fuel and reduce both emissions and fuel expenses. For example, in FedEx’s FY2013 Form 10-K, the company reports on its progress to meet vehicle and aircraft fuel economy improvements and sets out new targets for both modes of freight. The company also provides detailed disclosure on some of the investments they are undertaking to improve performance on the issue. For example, the company states that their “electric delivery fleet has grown to 360 low-emission hybrid-electric vehicles and 165 zero-emission electric vehicles. Additionally, we recently purchased 1,900 lightweight, composite-body Reach vehicles (...) to join our 400 Reach vehicles already in service.”

Similarly, in April 2013, UPS announced plans to purchase 700 liquefied natural gas 18-wheelers by the end of 2014. The company also plans to build four refueling stations to serve the new fleet. UPS is making the transition to reduce gasoline and diesel emissions. While the switch will require capital expenditure, it will also eliminate 40 percent of the company’s fuel costs. In addition to upgrading its ground fleet, UPS has also made updates to its aircraft. In May 2013, the company added wingtip devices to its Boeing 767 fleet, a move that is projected to save six million gallons of fuel every year and reduce carbon emissions by more than 62,000 metric tons.
Reduction fuel consumption can therefore have a direct impact on expenses and help expand profit margins. The SmartDrive Commercial Transportation Fleet Fuel Efficiency Study, issued in 2011 by transportation technology company SmartDrive Systems, found that truck drivers who use "eco-driving" techniques can improve fuel efficiency by an average of 22 percent. That 22 percent improvement means fleet operators could save up to $12,553 in fuel costs per vehicle every year. The study evaluated 695 Class 8 tractor-trailers, heavy-duty trucks, and drivers in a broad range of locations. The eco-driving best practices include accelerating and decelerating smoothly, reducing excess idling, avoiding hard turning, and maintaining consistent speed.46

Finally, leading logistics companies are meeting growing consumer and regulatory demand for carbon accounting and management through new technology and product offerings. In October 2013, DHL Global Forwarding and Freight launched an automatic CO₂ emissions tracing application that allows customers worldwide to see the carbon footprint of their shipments online. The data compiled by the new system is compliant with the European standard developed by the European Committee for Standardization.47 In a similar move, FedEx, UPS, and other industry participants have started offering carbon-neutral shipping options as add-ons to their regular services. Customers can pay a premium to offset emissions associated with their shipments.48, 49

**Value Impact**

Fuel and emissions management are likely to affect AFL companies’ operational efficiency and cost structure over time. As the debate continues over the most efficient mechanisms to reduce GHG emissions and local air pollution from the industry, companies will likely be forced to either increase operating costs (e.g., via purchases of carbon credits or use of more expensive alternative fuels) or increase investments to modernize their fleets as a result of regulatory and fuel cost pressures and customer demands. Additionally, companies face uncertainty around upcoming carbon regulations, which could impose unexpected compliance costs or penalties in the near to medium term. At the same time, capital expenditures in more fuel-efficient airplanes and/or vehicles and investments in emerging fuel-management technology could potentially reduce ongoing fuel expenses in the medium term, improving profitability. AFL companies might also be able to offer customers new carbon-neutral shipping services for an increased price premium, enabling them to expand revenues. Moreover, positive public perception resulting from effectively managing GHG emissions can improve reputation and brand value. As externalities from climate change continue to worsen, and air and road transportation increasingly become the focus of regulations to limit emissions, the probability and magnitude of these impacts are likely to increase in the near to medium term.

The magnitude of these impacts can be estimated using companies’ Global Scope 1 emissions, in absolute terms and relative to their peers, factoring in regions of operations and mitigation efforts reflected in concrete emissions-reduction targets. It can also be assessed through the fleet’s total emission of NOx, SOx, and PM. Additionally, while the cost of energy consumption is already captured in financial results, overall energy consumption levels enable analysis of exposure to possible future increases in energy price, resulting from internalizing the growing environmental and social impact of energy consumption. Reliance on specific types of energy also creates operational risks, which impact long-term profitability and ultimately the risk profile of the company. Lastly, use of renewable energy
indicates a firm’s ability to mitigate its environmental footprint and its exposure to energy cost increases driven by sustainability impacts.

**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. The AFL industry can impact local communities and customers through its performance on safety management. This is discussed under the topic of “Accidents & Safety Management” in the Leadership and Governance section below.

**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 for companies that operate in dangerous working environments. Labor relations and classification are important considerations in the AFL industry and apply to company employees as well as contractors. Business classifications determine the labor laws that govern particular businesses and determine the ease with which its workers can unionize. Additionally, AFL companies manage large networks of contractors and must carefully manage these relationships so that they are in compliance with local labor laws.

Worker health and safety is important to the industry due to the physical nature of the work and inherent dangers of air, marine, road, and rail travel. Worker health and safety is discussed under the topic of “Accidents & Safety Management” in the Leadership and Governance section below, as accidents in the industry usually affect employees and contractors. While logistics and air freight companies may not operate marine and rail freight, it is common for them to contract with rail and marine transportation companies for their customers. Safety of such contracted transportation providers is discussed under the topic of “Supply Chain Management,” also in the Leadership and Governance section.

**Fair Labor Practices**

The AFL industry employs skilled workers including pilots, airline mechanics, ground mechanics, and freight drivers. Additionally, shipping service providers such as ground shipping and freight forwarding companies heavily rely on contractors; thus many workers involved in delivery are not employees. There has been much media and regulatory attention on the classification of independent owner-operators, who are contracted by courier service companies like FedEx and UPS to make many of their deliveries. In these cases, companies can benefit from an extended perspective on labor management as a critical component for business continuity.
Business classifications and relevant labor laws can play an important role in logistics workers’ ability to unionize. The most striking example of this is in the difference between UPS and FedEx operations. FedEx began as an air carrier and thus is classified as an air carrier with employees governed by the Railway Labor Act (RLA), which also covers airlines. In contrast, UPS began as a trucking company and its employees are covered under the National Labor Relations Act (NLRA). The RLA makes it much harder for workers to unionize and, as a result, only 2 percent of FedEx employees are represented by unions, compared to 63 percent of UPS employees.51

Unionization, or the lack of, affects workers’ ability to negotiate wages, rest periods, and other benefits. A study by the Economic Policy Institute found that unionized workers are 28 percent more likely to be covered by employer-provided health insurance and 54 percent more likely to have employer-provided pension.52 Companies that manage contractors must be mindful of the different clauses in their contracts to ensure that they are accurately classifying workers as independent contractors as per state law. Poor management of either of these aspects can lead to lawsuits and regulatory scrutiny.

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

- Percentage of drivers who are classified as independent contractors; and
- Legal and regulatory fines associated with labor law violations.

Evidence
AFL companies can face costly legal actions from employee and contractor claims regarding wage payments, worker classifications, and working conditions.

J.B. Hunt Transport Services disclosed in its 2013 Form 10-K that it is currently a defendant in multiple class-action lawsuits filed by “current and former California-based drivers.” The drivers claim that J.B. Hunt did not pay wages and failed to provide meal and rest periods, among other complaints. Acknowledging the potential significance of lawsuits in this area, the company’s Form 10-K states that “we cannot reasonably estimate at this time the possible loss or range of loss, if any, that may arise from these lawsuits.”53

The use of independent contractors offers benefits to companies in terms of flexibility and ability to service a wide range of locations, however, there are risks associated with managing large numbers of contractors. FedEx Ground has been involved in numerous lawsuits regarding the classification of its independent contractors and other labor violations. During the 2014 fiscal year, the ground segment of FedEx had 44,000 company-owned trailers and used 42,000 owner-operated vehicles.54 The company reported in its FY 2014 Form 10-K that the court had found that owner-operators were correctly classified as contractors and ruled in its favor in 20 of the 28 multidistrict class action litigation cases. The plaintiffs in all these cases have filed appeals.55 However, FedEx settled labor lawsuits in several states. In Connecticut, FedEx settled a $2 million class action lawsuit alleging that workers were not paid overtime. The workers claimed that the company violated the FLSA and state minimum wage law by classifying them as exempt.56 In Maine, the court approved a $5.8 million settlement to be paid to independent contractors by FedEx Ground for similar allegations.57
While companies may (or may not) correctly classify their workforce, the example of FedEx shows that in addition to the classification itself, managing labor relations, effectively communicating rights and benefits to both employees and contractors, and ensuring fairness in payments and working conditions are all critical in order to avoid lawsuits that can lead to significant settlement or penalty payments or recurring legal costs.

The company has made changes to the way it deals with independent contractors to reduce the risk of misclassification. According to its FY 2014 Form 10-K, "FedEx Ground has made changes to its relationships with the small businesses it contracts with that, among other things, provide incentives for improved service and enhanced regulatory and other compliance by the contractors." In 17 states, it has transitioned to an Independent Service Provider model that allows for negotiation of independent agreements in place of standard agreements.58

FedEx is not the only company dealing with worker classification lawsuits. In 2008, several UPS drivers filed a class action lawsuit claiming that they were misclassified as independent contractors and were denied the protection and benefits they would be eligible for under the FLSA. UPS settled that case for $12.8 million.59 In its FY 2013 Form 10-K, UPS disclosed that it is “a defendant in a number of lawsuits filed in state and federal courts containing various class action allegations under state wage-and-hour laws.” While the UPS management team does not believe that losses associated with these “would have a material adverse effect on (its) financial condition, results of operations or liquidity,” they are indicative of risks associated with worker classification and related rights.60

Value Impact

Labor practices can have medium- to long-term effect on operational efficiency and liabilities. Violation of labor laws can result in regulatory penalties and legal actions, leading to extraordinary expenses and contingent liabilities. Specifically, misclassification of employees and contractors can lead to additional compensation costs as well as liabilities for past wage, tax, and pension obligations. Labor practices can also influence AFL companies’ ability to recruit and retain a talented workforce, which can impact revenue growth and market share, recruitment and turnover costs, and pension liabilities. Legal and regulatory fines associated with labor law violations provide a measure of past performance on labor practices, while the percentage of drivers classified as independent contractors provides an indication of companies’ exposure to possible future labor disputes.

BUSINESS MODEL AND INNOVATION

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

Innovation in the AFL industry in the context of sustainability centers around fuel management and alternative fuels, which have been addressed under the “Environmental Footprint of Fuel Use” issue in
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.

For the AFL industry, with its vast network of transportation modes and services, it is important to maintain a safety culture at all levels of the organization and continually improve safety performance. Regulations and public relations involving the impact of vehicle accidents on the public and the environment can damage company reputation and affect financial performance. Furthermore, non-asset based companies’ reliance on numerous contractors to provide services can bring additional complications. Thus, supply chain management that can affect company performance on a range of issues, including environment and safety.

Accidents & Safety Management

Transportation activities have inherent dangers related to accidents that occur because of mechanical failure or human error. Employee safety and accidents are closely linked, as accidents involving vehicles are likely to impact vehicle operators. Additionally, moving packages manually can be physically taxing and requires training in order to minimize injury to workers. In general, moving and transporting freight involves risk of accidents and unintended releases of hazardous materials that can cause injuries, fatalities, and negative environmental impacts.

Because AFL companies work under time constraints to ensure efficient delivery, safety and efficiency are correlated. Exposing employees to the dangers and rigors of work without adequate protection and training heightens the chance of work stoppage due to acute events; it can also lead to lower productivity if employees feel that their safety and well-being are not being prioritized. At the extreme, poor management related to working hazards and accidents could result in regulatory action and lawsuits from workers, impacted communities, or customers of AFL companies.

While all modes of transportation pose safety risks, road transportation is more dangerous than air or sea travel. Nevertheless, pilot safety is also a paramount issue for air freight companies, given the nature of air travel and extreme safety incidents that can occur. Therefore, it is critical that AFL companies maintain rigorous employee training, fleet maintenance, and operational measures, as well as ensure drivers and pilots are rested and alert. Use of new technology to monitor safety of operations can minimize risk of accidents. To improve road safety, the FMCSA’s has introduced new rules that limit driving times and set required rest times. The FAA standards on aircraft maintenance and pilot scheduling and training are stringent. While the stringency of regulatory requirements may vary by the region of operation, this is a global industry and companies that maintain the highest safety standards throughout their global operations could
minimize the risks of safety incidents that can affect their reputation and profitability.

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

- Description of implementation and outcomes of Safety Management System;
- Number of aviation accidents;
- Number of road accidents and incidents;
- Injury and fatality rates for both full-time and contract employees; and
- Safety Measurement System BASIC percentiles.

Evidence

Transportation activities are associated with a high rate of accidents, resulting in injuries and fatalities. For the AFL industry, strong safety and emergency management practices and a culture of safety are important for both road transport and air freight operations. By minimizing the risks of accidents, managing them effectively to minimize local impacts, and protecting worker health and safety, companies can avoid expenses and reputational damage associated with such events.

In 2012, approximately 3,800 large trucks in the U.S. were involved in fatal accidents, while 330,000 were involved in non-fatal accidents. While these numbers are lower than the annual averages for the years 1991 through 2000 (5,000 fatal accidents and 400,000 non-fatal), trucks are more still likely to be involved in fatal crashes due to their weight, size, and time spent on high speed roads. At the same time, the road freight segment of the AFL industry experiences higher than average injury and fatality rates. According to Bureau of Labor Statistics data, in 2012, the average worker injury rate for the "transportation and warehousing sector" within the North American Industry Classification System was 4.9 injuries per 200,000 hours; in comparison, the average for all private industry 3.4. The "truck transportation industry" rate was 4.5 per 200,000 hours. (This rate includes independent owner-operators of trucks as well as small private businesses). The rate of fatal occupational injuries for the "transportation and warehousing sector" was extremely high: 14.6 per 100,000 full-time employees, compared to 3.4 for all workers. Most of the lives lost were in the trucking industry. Of the total 783 lives lost in the "transportation and warehousing sector", 404 were employed truck drivers, while 96 were self-employed.

AFL companies sometimes transport hazardous materials; accidents involving such freight can have particularly large or wide-ranging impacts, both on workers and on local communities and the environment. Between 1991 and 2000, there were more than 800,000 daily shipments of hazardous materials in the U.S. An average of 200 hazardous materials trucks were involved in fatal crashes annually during that period, while 5,000 were involved in non-fatal crashes. Accidents are often costly events: A 2006 DOT report found that the average unit cost for a highway crash involving medium and heavy-sized trucks was $91,112, including medical costs, emergency service costs, property damage, and lost productivity. In the first quarter of 2014 alone, trucks carrying hazardous materials were involved in 1,846 incidents resulting in damages of nearly $31 million. These accident rates and potential costs underscore the importance of strong safety management.

Contingent liabilities can increase after serious crashes. FedEx is facing multiple lawsuits as a result of a fatal accident that killed 10 people in April 2014. A FedEx truck collided with a charter bus...
carrying students going to visit a university and burst into flames. The families of two of the deceased filed wrongful death lawsuits, while a third injured student filed a suit seeking unspecified damages. UPS acknowledged the importance of safety management in its FY 2012 Form 10-K by including a whole section on the issue and describing its “Comprehensive Health and Safety Process.” The foundation of the process, the company reports, is its “co-chaired employee and management health and safety committees. Together they conduct facility and equipment audits, perform work practice and behavior analysis, conduct training, and recommend work process and equipment changes.” Similar disclosures are also provided by FedEx and Ryder Systems in their annual SEC filings, highlighting the importance of the issue for companies in the industry.

New technologies are emerging in the logistics industry, in particular, its trucking services segment, which seeks to increase highway safety while saving companies money. Dupre Logistics is using GreenRoad driver safety technology, a system that gives drivers and managers feedback on the frequency of unsafe maneuvers. The technology aims to reduce costs related to accidents, fuel, insurance, and maintenance. Since implementing the technology, the company has seen the rate of unsafe maneuvers improve from 23 per ten hours to five, while also improving miles per gallon by 3.2 percent. Similarly, Con-way Truckload is investing $2 million in three technology solutions that aim to increase safety for the company. The systems will be applied to all of Con-way’s 525 new tractors. The new technology systems provide early-warning alerts and proactive intervention to reduce the most common incidents that lead to highway accidents.

In its FY 2012 Form 10-K, UPS also provides information on some of its specific accident management initiatives, including monitoring its fleet electronically “to ensure that each vehicle is serviced at a specific time to prevent malfunction or breakdown.” For example, the company investigates every auto crash in order to develop preventative measure, recognizes employees based on safety performance, and fosters management commitment to and employee involvement in safety programs.

The global rate of fatal aircraft accidents has generally decreased over the last few decades to about 0.44 fatal accidents per million flights in 2013. While road transportation tends to involve higher accident rates than air freight activities, for the larger aviation industry, including commercial airlines, accident and safety management remain important to the air freight segment of the industry. Airplane cargo is often high value and serious accidents can be costly in terms of property damage and cargo loss.

The FAA maintains rules to limit commercial pilot scheduling to ensure pilots have adequate rest when they enter the cockpit, and for the duration of their work. At the moment, air cargo pilots are exempt from these rules but may be included in the future. The rules cover the flight duty period (the time beginning when a pilot reports for duty and ending when he or she reaches the gate at the end of his or her flight), flight time limits (the actual time spent operating the aircraft), rest period minimums, and cumulative fatigue. These rules provide a minimum, but as the evidence below suggests, pilot fatigue is a challenging issue with devastating consequences, and requires careful oversight.

Accidents involving cargo planes are not uncommon. On August 14, 2013, a UPS cargo plane crashed in Alabama, killing both pilots. The crash happened
just before 5 a.m., with both pilots landing their third flight of the night. The cause of the crash has not been determined yet, but investigators are looking into issues related to fatigue, mechanical failure, performance of flight safety warning systems, and the use of a shorter runway that lacks an instrument-landing system. In 2006, a UPS aircraft caught on fire just before landing in Philadelphia. In 2010, another UPS cargo plane caught fire and crashed after it left Dubai, and in 2011, an Asiana Airlines cargo jet crashed into the East China Sea after crew reported a fire on board. Financial impact from accidents goes beyond additional regulatory scrutiny: there can be loss of lives, damage to property, and liability to customers for loss of cargo.

Value Impact

Failure to maintain satisfactory safety ratings and acceptable safety records could reduce demand for services and impair a company’s ability to continue to conduct a significant percentage of its intermodal shipments, reducing revenues and market share. Failure to comply with safety laws and regulations can also result in regulatory penalties or legal actions, creating contingent liabilities or cease-and-desist orders against any operations that are not in compliance. Any such suspension or loss of operating licenses could disrupt services, also affecting revenues. Additionally, recent regulations on pilot fatigue, well-being, and extended rest periods for pilots will likely force companies in the industry to hire additional personnel, effectively increasing operating expenses. Accidents are likely to increase operating and capital expenditures via higher asset salvage costs, insurance premiums, and legal expenses. Asset write-downs can result from loss of planes or trucks in accidents. Companies with greater frequency of accidents or larger magnitude of impacts from them could face a higher risk premium, and therefore cost of capital.

Incident-based safety metrics (accidents and incidents; injury and fatality rates) characterize past performance as a proxy for how well companies manage this issue, and provide an understanding of the probability and magnitude of incidents. Performance in terms of Safety Measurement System BASIC percentiles provides complementary forward-looking insight on how companies are likely to perform in the future.

Supply Chain Management

Many companies in the industry, particularly those providing freight forwarding, logistics, brokerage, and intermodal services, contract with complex and large networks of asset-based third party providers to provide freight transportation services to their customers. These contractors range across all modes of transport including motor carriers, railroads (primarily intermodal service providers), and air freight and ocean carriers. Because most of the material sustainability issues likely to affect companies in the AFL industry are related to the transportation of goods, AFL companies need to manage relationships with their contractors to ensure that contractor actions that may lead to environmental or social impacts do not result in material adverse effects on their own operations.

The liability for incidents with negative environmental or social consequences can fall on both the contractor and the principal. As a result, both parties may face significant costs and reputational damage when such incidents occur. On the other hand, logistics companies can benefit from contracting with suppliers who manage these issues well, such as those operating fuel-efficient fleets and those with proven safety records.
Third party logistics providers that mandate selection or performance standards for their contractors and suppliers could benefit from lower risks and improved shareholder value.

Company performance in this area can be analyzed in a cost-beneficial way internally and externally through the following direct or indirect performance metrics (see Appendix III for metrics with their full detail):
- Percentage of carriers with BASIC percentiles above intervention thresholds; and
- Complete GHG footprint across transport modes.

Evidence
Consumer demand for lower emission logistics solutions is driving third party logistics companies to select contractors with fuel efficient fleets. In its FY 2013 Form 10-K, J.B. Hunt highlights how its intermodal services are designed to respond to consumer demand for energy-efficient transportation to “reduce both cost and greenhouse-gas emissions.” The company participates in the EPA’s SmartWay Transport Program, which allows participants to reduce transport costs and emissions by improving the energy use and environmental efficiency of freight operations.

Contracting with environmentally sustainable businesses can sometimes ensure access to ports. The largest container ports in the U.S., the Ports of Los Angeles and Long Beach, impose fees on shipments carried by trucks that do not meet certain emissions standards. As a result, logistics providers like Pacer International contract with independent truck owner-operators who are in compliance with these emissions requirements to ensure access to ports.

In today’s global economy, logistics service providers and freight carriers are required to ensure delivery within precise timeframes. Therefore, safety and efficiency are closely related, and safety performance is an indication of efficiency. Additionally, in the event of an accident, both contract and principal may be held liable. For example, in 2009, a jury awarded plaintiffs $23.7 million in damages in a suit filed against the logistics provider C.H. Robinson. The company hired a motor carrier, Toad L Dragonfly, to transport its clients’ goods, and the carrier was involved in a dual-fatality accident. The driver, an independent contractor, was driving on a suspended license and had falsified her hours-of-service logbook. Plaintiffs named both the carrier and the driver in their charges, and while both admitted fault, they had limited insurance coverage. The case against C.H. Robinson focused on the company’s responsibility to screen and select the motor carrier. C.H. Robinson contested liability and the case’s outcome raises concerns about the potential liability faced by transportation brokers.

Value Impact
For logistics companies that broker transportation services from other carriers, management of the safety and environmental footprint of the supply chain is key to their operating and financial performance. Safety incidents can affect the timeliness of logistics services as well as the integrity of cargo, with potentially material impact on revenue and market share. The percentage of contracting carriers with BASIC percentiles above intervention thresholds provides an indication of how AFL companies are proactively mitigating safety risks in the supply chain.

Similarly, the GHG footprint of contracting carriers can impact market share and revenues, as customers are increasingly looking for carbon-neutral shipping...
services and are prepared to pay a price premium for such services. Performance in this area can be assessed by analyzing the multimodal GHG footprint of logistics providers.
APPENDIX I
FIVE REPRESENTATIVE AIR FREIGHT & LOGISTICS COMPANIES

This list includes five companies representative of the Air Freight and Logistics industry and its activities. This includes only companies for which the Air Freight and Logistics 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 July 10, 2014.

<table>
<thead>
<tr>
<th>COMPANY NAME (TICKER SYMBOL)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UPS (UPS)</td>
<td></td>
</tr>
<tr>
<td>FedEx (FDX)</td>
<td></td>
</tr>
<tr>
<td>CH Robinson (CHRW)</td>
<td></td>
</tr>
<tr>
<td>Expeditors International (EXPD)</td>
<td></td>
</tr>
<tr>
<td>UTI Worldwide (UTIW)</td>
<td></td>
</tr>
</tbody>
</table>
## 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 % Priority</td>
<td>EI Revenues &amp; Costs</td>
</tr>
<tr>
<td>Environmental Footprint of Fuel Use</td>
<td>67*</td>
<td>85 1 High</td>
<td>• • •</td>
</tr>
<tr>
<td>Fair Labor Practices</td>
<td>30</td>
<td>81 3 High</td>
<td>• •</td>
</tr>
<tr>
<td>Accidents &amp; Safety Management</td>
<td>43</td>
<td>83 2 High</td>
<td>• • •</td>
</tr>
<tr>
<td>Supply Chain Management</td>
<td>47</td>
<td>- - Medium</td>
<td>• •</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, 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</th>
<th>Operating Expenses</th>
<th>Non-operating Expenses</th>
<th>Assets</th>
<th>Liabilities</th>
<th>Cost of Capital</th>
<th>Industry Divestment Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Footprint of Fuel Use</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Fair Labor Practices</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Accidents &amp; Safety Management</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Supply Chain Management</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

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

**SUSTAINABILITY ACCOUNTING METRICS – AIR FREIGHT & LOGISTICS**

<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>Environmental Footprint of Fuel Use</strong></td>
<td>Gross global Scope 1 emissions</td>
<td>Quantitative</td>
<td>Metric tons CO₂-e</td>
<td>TR0202-01</td>
</tr>
<tr>
<td></td>
<td>Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets</td>
<td>Discussion and Analysis</td>
<td>n/a</td>
<td>TR0202-02</td>
</tr>
<tr>
<td></td>
<td>Total fuel consumed, percentage renewable for (1) road transport and (2) air transport</td>
<td>Quantitative</td>
<td>Gigajoules (GJ), Percentage (%)</td>
<td>TR0202-03</td>
</tr>
<tr>
<td></td>
<td>Air emissions for the following pollutants: NOₓ, SOₓ, and particulate matter (PM)</td>
<td>Quantitative</td>
<td>Metric tons (t)</td>
<td>TR0202-04</td>
</tr>
<tr>
<td><strong>Fair Labor Practices</strong></td>
<td>Percentage of drivers who are classified as independent contractors</td>
<td>Quantitative</td>
<td>Percentage (%)</td>
<td>TR0202-05</td>
</tr>
<tr>
<td></td>
<td>Amount of legal and regulatory fines and settlements associated with labor law violations&lt;sup&gt;iv&lt;/sup&gt;</td>
<td>Quantitative</td>
<td>U.S. Dollars ($)</td>
<td>TR0202-06</td>
</tr>
<tr>
<td><strong>Accidents &amp; Safety Management</strong></td>
<td>Description of implementation and outcomes of Safety Management System</td>
<td>Discussion and Analysis</td>
<td>n/a</td>
<td>TR0202-07</td>
</tr>
<tr>
<td></td>
<td>Number of aviation accidents</td>
<td>Quantitative</td>
<td>Number</td>
<td>TR0202-08</td>
</tr>
<tr>
<td></td>
<td>Number of road accidents and incidents</td>
<td>Quantitative</td>
<td>Number</td>
<td>TR0202-09</td>
</tr>
<tr>
<td></td>
<td>(1) Total recordable injury rate and (2) fatality rate for (a) full-time employees and (b) contract employees</td>
<td>Quantitative</td>
<td>Rate</td>
<td>TR0202-10</td>
</tr>
<tr>
<td><strong>Supply Chain Management</strong></td>
<td>Percentage of carriers with BASIC percentiles above the FMCSA intervention threshold</td>
<td>Quantitative</td>
<td>Percentage (%)</td>
<td>TR0202-12</td>
</tr>
<tr>
<td></td>
<td>Complete greenhouse gas footprint across transport modes</td>
<td>Quantitative</td>
<td>Metric tons CO₂-e per ton-kilometer</td>
<td>TR0202-13</td>
</tr>
</tbody>
</table>

<sup>iv</sup> Note to TR0202-06– Disclosure shall include a description of fines and settlements and corrective actions implemented in response to events.
APPENDIX IV: Analysis of SEC Disclosures
Air Freight & Logistics

The following graph demonstrates an aggregate assessment of how the top ten U.S.-listed Air Freight & Logistics companies by revenue are currently reporting on sustainability topics in the SEC Disclosures.

![Graph showing type of disclosure on material sustainability topics for Air Freight & Logistics.]

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

2 Author’s calculations based on Bloomberg data accessed on August 27, 2013.
6 Author’s calculations based on data from Bloomberg Professional service accessed on August 11, 2014, using the ICS <GO> command. The data represents global revenues of companies listed(653,131),(834,146) on global exchanges and traded over-the-counter from the Air Freight and Logistics industry, using Levels 2 and 3 of the Bloomberg Industry Classification System.
13 Author’s calculations based on data from Bloomberg Professional service accessed on August 11, 2014, using the ICS <GO> command. The data represents global revenues of companies listed on global exchanges and traded over-the-counter from the Air Freight and Logistics industry, using Levels 2 and 3 of the Bloomberg Industry Classification System.
15 Author’s calculations based on Bloomberg data accessed on August 11, 2014.
32 “Virgin America’ New Fuel-Efficient LEAP Engines Will Save $1.6 Million Per Plane.”


Administration, accessed September 30, 2013,  


71 Rick Weber, “Dupre Logistics achieves a reduction in crashes and an increase in fuel savings with GreenRoad Driver Management Technology,” Bulk Transporter, June 1, 2011, accessed October 15, 2013,  

72 GreenRoad, accessed October 3, 2013,  
http://greenroad.com/.

73 Weber, “Dupre Logistics achieves a reduction in crashes and an increase in fuel savings with GreenRoad Driver Management Technology.”

74 “Con-Way Upgrading Safety Technology,” Go by Trucking News, August 6, 2013, accessed October 1, 2013,  


78 Levin, “Exploding Lithium Batteries Riskier to Planes: Research.”  


83 “$23.7 Million Liability Case against C.H. Robinson.” The Quest, no. 64 (2009), accessed August 29, 2014,  