

# ESG



## THE ESG IMPERATIVE

*Understanding the Opportunities for the  
Equipment Leasing and Finance Industry*



EQUIPMENT LEASING & FINANCE

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Established in 1989, the Equipment Leasing & Finance Foundation is a 501c3 non-profit organization dedicated to inspiring thoughtful innovation and contributing to the betterment of the equipment leasing and finance industry. The Foundation accomplishes its mission through development of future-focused studies and reports identifying critical issues that could impact the industry.

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## Preface

The concept of “ESG” or environmental, social, and governance issues is not new to the equipment leasing and finance industry. We’ve long touted the ability to redeploy equipment coming off lease as an environmentally friendly benefit of equipment leasing. Some industry participants have parent organizations that started measuring their ESG efforts several years ago. What’s changed is how a confluence of global events - from the pandemic to economic downturn to social unrest and extreme weather – put ESG front and center for businesses in all industries around the world. In other words, ESG as a critical corporate strategy has arrived.

No longer a PR tactic, corporate attention to ESG issues is critical to long-term success. A robust ESG program offers several competitive benefits from enhancing one’s brand to engendering customer loyalty, to both attracting and retaining the best talent to alluring different pools of capital. Numerous studies demonstrate a positive correlation between strong ESG positions and shareholder returns. To be successful over the long term, equipment finance and leasing companies must proactively embrace ESG policies and measurements for the benefit of their stakeholders.

Make no mistake, stakeholder interest in ESG matters is already underway in our industry. We’re already seeing how they want greater transparency on how equipment finance and leasing companies are managing their ESG risk. Customers increasingly are factoring in ESG credentials into their buying behavior. In fact, Alta has led several customer financing solutions RFPs across the globe where ESG is not only a standard question but also a heavily weighted factor in the vendor’s selection criteria. Millennial and Gen-Z employees are being tempted by employers, often outside of the industry, who espouse ESG values that align with their own. Institutional investors, lenders, and rating agencies are becoming more focused on ESG matters as they assess an organization’s long-term sustainability.

Therefore, it is imperative that equipment finance and leasing companies develop ESG frameworks to meet stakeholder needs. These frameworks must be well thought out and have measurable goals unique to the equipment finance and leasing company employing them. There is no one-size-fits-all solution. Somewhat complicating matters further is that many of the regulatory and reporting requirements are still evolving. To be successful, ESG initiatives must be integrated into corporate strategic planning practice and not be a siloed effort.

Alta’s team of professionals who participated in the research and analysis for this project, has extensive leasing industry experience at both the strategic and tactical level, including working with clients involving ESG matters. Several industry leaders and ESG subject matter experts participated in the study through detailed interviews, sharing their ESG experience, questions, and concerns. Alta worked closely with the Equipment Leasing & Finance Foundation’s ESG Steering Committee to frame the project research and results in a way to best understand the significance of ESG for the industry.

Valerie L. Gerard  
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## Introduction

Global shocks inevitably expose systemic vulnerabilities and usher in periods of dynamic change. The COVID-19 pandemic introduced such a shock bringing a confluence of environmental social, economic, and political events into stark review. During the same time period, European regulators established ESG reporting requirements. ESG, (Environmental, Social, Governance), standards have existed for over fifteen years, yet in the last two years a dramatic increase in interest, investments and collaboration has materialized. The purpose of this research paper is to review key ESG elements and to look at their status in terms of strategy, and the risks and opportunities they represent for the equipment finance industry.

This research paper is organized into eight distinct sections. The first is this introduction followed by section two, the executive summary. The executive summary is designed to be a stand-alone summary of each section of this ESG research paper in its entirety. Section three reviews the definition and evolution of ESG. Section four discusses specific ESG industry market segment opportunities, provides illustrations of the potential impacts on funding and underwriting, and offers a brief overview of relevant elements of the recently passed Infrastructure Investment and Jobs Act. Section five provides a summary and key insights gleaned from industry research interviews. Section six provides background on the current state of disclosure requirements. Section seven offers a framework for ESG value creation and execution and finally, Section eight provides high-level conclusions of the paper. Following section eight is Appendix A to provide more details on evolving standards, a glossary of terms and organizations referenced throughout the research paper, a research methodology description, an acknowledgment of the companies that participated, and, finally, biographies of the researchers.

At the completion of the research, six key insights came into view. The first is that ESG preparedness, standardization efforts, and measurement techniques are both fragmented and burgeoning, with Europe leading the way. At the November 2021 COP26 meeting, the IASB (International Accounting Standards Board) announced the creation of the ISSB, (International Sustainability Standards Board). This newly established board has already provided proposals for high-level frameworks. In the U.S., there is an expectation that the SEC will watch these international activities carefully to determine how they will integrate ESG reporting requirements. To date, the SEC has expressed concerns regarding inaccurate or non-transparent ESG data and its corresponding impact on the accuracy of financial reporting. Many of the largest banks are at the forefront of ESG standards and efforts, most having made commitments to be carbon neutral by 2030. As such, bank-owned equipment leasing companies are moving in line with their parent organizations. Across the equipment finance industry today, UN SDG's (Sustainable Development Goals), are the most common framework for measuring and communicating ESG progress and goals. In the end, this framework will likely be modified to conform to emerging ISSB and future SEC defined standards and frameworks.

The second insight is that a tremendous amount of capital is and will continue to be deployed towards ESG assets in advance of having clarity in the U.S. of required disclosure frameworks. The implication to the equipment finance industry is two-fold. First, funders to the industry and rating agencies are beginning to include ESG inquiry in diligence efforts for securitized transactions and funding facilities. Second, equipment financing is poised to be very attractive for capital providers seeking ESG investments. Today, that materializes primarily as a tailwind for leasing companies negotiating funding facilities for ESG-related assets. In the future, it may materially, and perhaps positively, affect funding availability and cost of funds.

The third insight is that, across the board, equipment finance companies are evolving their ESG strategies organically and building from their core value propositions. For example, those in the healthcare finance business are focusing on the 'S' element of ESG and endeavoring to use equipment finance to extend access and affordability. Energy, IT, and transportation finance companies are innovating to deliver solutions to reduce carbon emissions. Vendor finance companies are designing solutions to help their vendors enhance their ESG offering through financing solutions. The research found, without exception, that there was general enthusiasm and interest across the industry in identifying ESG strategies and the associated investments to bring them to life.

A fourth and critical element is the importance of ESG in attracting and retaining employees. Understanding an organization's mission and commitment to ESG-related mission and impact are becoming critical to attracting job seekers. Millennial and Gen Z job seekers are more and more unlikely to seek employment at companies whose ESG mission and impact are not clearly evident in their products, branding, and communication.

The fifth insight is about the important considerations in the evolution of value propositions to address ESG challenges. The nascency of many of the technologies that are key to addressing climate change and the anticipation of continued technology invention poses particular challenges and opportunities for the equipment finance industry. Working with companies whose solutions may not have yet reached a proven commercial scale will provide an opportunity to add value in solution delivery while at the same posing unique risks. At the same time, customer demand for managed services types of circular economy type equipment usage models is on the rise. These two dynamics will require new approaches to crafting vendor agreements and allocating the associated risks and rewards.

The sixth, and arguably most important, insight is that evolving ESG purpose and mission will not be a separate effort but incorporated into core business strategy, purpose, targets, and goals. Purpose and profitability will coalesce in strategy execution and impact. The equipment finance industry is approaching this pragmatically and profitably in ways that make a difference in recruiting and retaining employees, vendors, and customers. ESG will increasingly be the language and framework for conveying mission, strategy, and results to all stakeholders.

## Executive Summary

While corporate ESG standards have been around since 2004, they have only recently risen in importance due to a confluence of global environmental, social, business, and political events. Today, many equipment finance and leasing companies have not fully formulated their propositions, policies, and procedures. One reason for this is that preparing ESG policies requires a thorough understanding of ESG precepts, which, given the scope of ESG is not easy nor straightforward. The Study is designed to assist equipment finance and leasing companies to further their ESG efforts or, if they have not started them, to give them guidance on where to begin. The key question this research is designed to assist in answering is – What does an equipment leasing and finance organization need to know to have a successful focus on ESG?

This executive summary section provides a consolidated overview with key messages from detailed sections of this research paper as follows:

### Section 3 Summary: ESG Overview

Section 3 explores the elements of ESG and includes a high-level perspective on how and why ESG has evolved to where it is today.

Topics and key messages are as follows:

#### **ESG Defined:**

ESG includes factors related to Environmental, Social, and Governance issues that have global sustainability impacts. Activities that measure stewardship or represent strong predictors of performance can be attributed to each of these key factors to support the ability to score or measure individual ESG performance for a company.

#### **Migration to ESG:**

Millennials and Gen Z, in particular, search for options where a company's values align with their own in providing a positive social impact. This broad category of investing is often referred to as Socially Responsible Investing (SRI).

SRI has roots dating back to 1500 BC when faith-based organizations screened investments in foods and activities that deviated from values associated with religious doctrine. Historical influences on evolving social norms have culminated with the emergence of standards and Key Performance Indicators (KPIs) related to ESG. Incorporating ESG into investment policy became a catalyst for introducing the demand for data analysis of ESG. Today, a key focus on ESG metrics is to determine those that the Securities and Exchange Commission (SEC), investment, and business communities determine to be both assured and material to long-term financial performance.

#### **Spectrum of Socially Responsible Investing:**

Although references to ESG and Socially Responsible Investing (SRI) are often used interchangeably, there is a perceived spectrum of investing. At the lowest level, traditional investing is singularly focused on Return on Investment (ROI). It is still the most prominent form of investing today. At the furthest end of the spectrum, there is philanthropy, where ROI can be totally ignored in favor of inspiring positive change in the world. Impact and philanthropic investing are generally limited to private funds while ESG and other SRI types of investing usually involve publicly traded assets and institutional funds.

### **Growth in Assets Under ESG Management:**

Although there can be specific ESG-related asset groups, ESG, by itself, is not an ‘asset group’. It is a risk management process that can apply to all funds and assets under management. Global ESG assets under management are expected to exceed \$50 trillion and represent over one third of the projected \$140 trillion total assets by 2025.<sup>1</sup> As of July 2021, ESG assets under management (AUM) are \$35 trillion with the U.S. representing almost half of this amount at \$17 trillion. Due to pervasive company practices around ‘greenwashing’, or exaggerating sustainability claims, there is a concerted effort to focus on initiatives to improve practices with regards to sustainability disclosure. This could result in slower growth in AUM.

## **Section 4 Summary: ESG Challenges and Opportunities for the Equipment Leasing & Financing Industry**

### **Funding and Capital Markets:**

The equipment finance industry is poised to be a net beneficiary of increased focus on ESG across capital markets. Based on asset performance, equipment leasing assets have a long history of delivering high-performing assets relative to other asset classes that attract lenders and competitive cost of funds. Banks, and increasingly insurance companies, are major lenders to leasing company balance sheets who bring their own ESG focus and commitments. This will likely lead to an increase in ESG-related diligence in securing bank lines and warehouse facilities.

At the recent COP26 climate conference it was GFANZ (Glasgow Finance Alliance for Net Zero), which represents 450 financial institutions controlling over \$130 trillion in assets across 45 countries announced plans and progress net-zero global economy<sup>2</sup>. Specific investment criteria and targets are expected by mid-2022 but current estimates are in the \$100 trillion to \$150 trillion range. Although specific targets are under development, there is great potential for ESG-related asset investment in areas such as transportation, energy, healthcare, and agriculture among others, to be attractive investment areas that will attract even further capital to equipment finance.

### **Impact on Securitizations:**

Equipment ABS is a long-standing strong funding vehicle. In fact, generally speaking, equipment ABS has outperformed in the capital markets from a risk perspective only by U.S. Treasury bonds. ESG-related factors have always been among the items reviewed by rating agencies in their ABS ratings. Amidst increased ESG investor focus, rating agencies have begun to include a specific section in their rating reports on ESG-related risk factors. These factors have long been part of the risk assessment but are now simply identified in a separate ESG section. There will likely be increased focus on ESG-related risk factors and supporting granular data such as asset concentration in climate-risk-vulnerable locations, demographic changes shifting consumer preferences, and governance factors that could include things like transaction structure.

### **Bank Facility Implications:**

Several large ESG-based bank credit facilities have recently been announced, where pricing is set based on the borrower’s results against sustainability goals. While these offerings are primarily in the large corporate space to date, they represent an interesting opportunity for industry participants with sustainability goals and could be applied to any floating rate obligation through the normal compliance process.



### **Underwriting and Portfolio Management:**

The focus in ESG underwriting has been primarily on choosing assets with a favorable environmental profile rather than underwriting the clients' ESG-related efforts. As such, most companies have not yet integrated ESG data into existing underwriting models. As the industry's participation in ESG matures, it is likely, and probably necessary, that borrowers' ESG factors will work their way into the transaction underwriting process. With newer equipment types, underwriting will need to address the uncertain collateral support available to mitigate transactional risk. Portfolio management efforts are also in an early stage, as most ESG efforts are too new to have created concentrations, but as the business matures, tracking performance and concentrations will be key to success.

### **Insurance:**

Costs to insure financed ESG assets will depend heavily on the asset class. For example, Electric Vehicles (EVs) have a higher upfront cost than gasoline-powered trucks and cost more to repair in the event of a collision. However, transparency in ESG provides insurance companies a view into data that can be used for risk assessment and mitigation. Studies have found that a commitment to ESG was highly predictive regarding losses relating to regulatory fines, general claims, and safety and health risks.

### **Asset and Sector Concentration:**

Although certainly on the radar screens of leasing and finance companies, asset and sector concentration arising from ESG financing are likely too new to be a major risk to date. As portfolios mature, traditional risk management hallmarks become more important. These include managing and setting limits on vendor, end-user, geographic, and equipment concentrations, as well as performing periodic portfolio reviews to address such concentrations before they become problematic.

### **Change Management:**

Prudent managers of equipment finance businesses may want to segregate their ESG portfolios to assess performance over time. Reporting will likely need to become more detailed and custom as the market matures, especially if utilizing an ESG-based funding mechanism. This means that industry participants will want to build in flexibility to allow the reporting to evolve over time. Industry participants should begin addressing information and reporting gaps before devoting significant capital to these markets.

### **Implementation and Resistance to Change:**

One of the factors our research identified as a key to success is the necessity for senior management to be transparent about its ESG strategy and to communicate the benefits, risks, and expected results to the organization. It is also important to obtain the buy-in and commitment of critical employees responsible for driving results. Management must "walk the talk," committing to ESG principles as a permanent part of the culture.

### **Key Segment Opportunities and Risks:**

Capital equipment across industries is a vital component of the solution in energy, transportation, and other critically important ESG-related sectors. Traditional areas for equipment finance are expanding to include these emerging segments and ESG-related asset classes, creating both new opportunities and risks for the industry.

Many if not most of the technologies that have the potential to close the gap in addressing climate change are under development or have yet to be invented. Many of these technologies are also components of a bundled solution. The combination of these emerging technologies, including some that are not yet proven or at commercial scale, along with the bundled nature of circular solutions will likely require finance companies to consider a broader set of risks and opportunities.

### Opportunities and Risks:

New technologies and business models are being developed to address the challenges relating to ESG and present opportunities for business development for the industry. These are discussed in detail in Section 3 below and include, among others:

**Rechargeable Electric Trucks (EVs):** Traditional and emerging truck manufacturers are bringing to market battery-powered trucks to help address the Greenhouse Gas (GHG) issues associated with internal combustion engines burning fossil fuels. Proliferation of these vehicles require the buildout of charging infrastructure for them to be deployed in any significant numbers.

**Fuel Cell-Powered Trucks:** Similar to the EVs mentioned above, but instead of needing to be recharged, they generate electricity by converting hydrogen to create electricity to power the vehicle.

**Alternative Fuel Trucks:** These vehicles utilize fuels other than electricity and petroleum to power the trucks and offer advantages in certain applications. Examples include Compressed Natural Gas (CNG) and green ammonia.

**IT Infrastructure:** The proliferation of data necessary to manage ESG, the high levels of power consumption by IT assets and other initiatives are driving investment in IT infrastructure, while the IT services industry is investing in energy-efficient means to provide and manage that data.

**Healthcare:** Essential use healthcare is a natural segment for ESG-related financing due to the societal benefits it provides, as well as the opportunity provided by shifts in how the services are consumed.

**Electric and Alternative Fuel Aircraft:** Aircraft create a significant amount of greenhouse gasses. The industry is looking at new technologies and fuels to help the industry achieve its net-zero GHG commitments.

**Drones and Robots:** These technologies are being deployed to address pollution and timing issues relating to last mile deliveries as well as industrial and agricultural applications.

**Locomotives:** Hybrid and other technologies help reduce emissions and improve the efficiency of locomotives.

**Maritime Shipping:** International maritime shipping generates a large and growing percentage of GHGs and the industry is working to minimize its carbon footprint.

**Renewable Energy:** Growing demand for energy is driving investment in renewable sources such as wind, hydroelectric and solar.

**Building Retrofits:** Significant efforts are being made to make existing buildings more energy efficient. These include lighting retrofits, HVAC upgrades, and smart technology.

**Agriculture:** Increasing demand for humanely and sustainably sourced food is driving investments in information-driven technology such as drones, efficient irrigation, and remote sensors.

These new technologies and their related infrastructures represent significant financing opportunities for the industry and do not require a significant change in new business philosophy as a driver to success. They do, however, pose challenges for industry participants relating to the nascent and rapidly evolving technology and vendor base. Credit departments must underwrite transactions understanding that collateral values may be impaired depending on the pace of change and the viability of the sellers and products. Asset managers face challenges not only with assessing future values of emerging equipment, but also the impact of replacement technologies on existing portfolios.

### **Circular Model Support for ESG Initiatives:**

Financial innovators recognize the opportunity of transitioning to circular models and are preparing for and investing in this change. The benefits to be gained far outweigh the challenges. Sharing, subscription, and consumption programs will support broader sustainability issues, new markets will open up to those who have previously been denied access to costly technology, and data will be transformed into knowledge. Important considerations to support this transition include the following:

**Linear versus Circular Economic Models:** The linear economic model emphasizes a more substantial contribution to waste when assets are produced without optimizing utilization or recycling opportunities. Circular models, on the other hand, focus on the design, manufacture, usage, and recycling of assets that reduce the use of raw materials and waste.

**Circular Model Risk Management:** Robust circular models generally involve managed service contracts that provide comprehensive and integrated systems of hardware, software, and services for a stated contract term. Because of this more extensive content, there are incremental risks that need to be examined to ensure that critical risk areas stay within defined tolerance levels for all parties to the contract. In addition to more traditional credit and residual risk management, managed service contracts can include performance, usage, accounting recourse, and data security risks.

**Circular Model Readiness Requirements:** Transitioning from traditional sales, leasing, or services models to integrated usage or circular models requires attention to critical development activities that include comprehensive market analysis, identification of funding sources under more complex contract structures, potential alliance strategies to leverage go to market strategies, legal readiness, business transformation activities around administrative, IT and organizational requirements, asset management strategies, pricing methodologies, accounting, and customer value creation. The exclusion of any critical process can open the door to future issues related to asset monetization, sale revenue recognition, billing, asset management, and performance risks, to name a few.

## Section 5 Summary: Industry Interviews and Best Practices

Nine industry stakeholders agreed to participate in interviews related to ESG strategies and practices. Participants selected included medium and large banks, independents, and manufacturers. Two broad topics were selected for discussion that included the following:

- ESG strategy overview and disclosure process
- Internal and external focus and implications

### ESG Strategy Overview and Disclosure Process:

Interview participants were asked to share perspectives on their ESG strategies and disclosure reporting. 7 of 9 (78%) of the companies interviewed have a strong ESG focus with different levels of disclosure and reporting. Regardless of the level of disclosure, if there is a strong focus on ESG or sustainability, the feedback from participants is that this focus has been integrally woven into the fabric of the company and has evolved to a point where it is considered a guiding principle for most activities. Many of these companies have invested heavily in ESG or sustainability programs and have adopted separate Corporate Social Responsibility (CSR) reporting to ensure that they build brand recognition around these important initiatives.

For those companies with less focus on ESG strategies and no formalized reporting, there are no intentional investments or defined targets earmarked as part of an ESG strategy but there is still a general perspective that ‘doing the right thing’ is an important part of making business decisions as long as those decisions continue to provide demonstrable value to the company. The perspective on disclosure from these participants is that unless initiatives can be measured and are material, voluntary disclosure is less meaningful. While there is an acknowledgment that voluntary disclosure can potentially leverage positive messages into new business, employee, and partner opportunities, there was a contrary perspective that until reporting is more standardized, self-promotion by some companies could shame others into irresponsible or exaggerated disclosure.

Because there is an expectation that ESG reporting will be less voluntary in the near future, companies were asked about their preferences for existing standards and frameworks. 4 out of 9 (44%) of participants indicated that they either do not have or are not aware of any ‘formalized’ reporting. Of the 5 (56%) of participants who have some level of internal or external reporting, there is a wide variety of standards and frameworks being used. In some cases, the factors being managed by a company represent an extensive adoption and external communication of results against specific frameworks/standards while other companies may only select a single element of focus for internal management (e.g., diversity, climate).

4 out of 9 (44%) of participants interviewed do not have any form of reporting or are not aware of any specific framework or set of standards being used. 3 of 9 (34%) of participants, who generally had more formalized processes or Corporate Social Responsibility (CSR) reporting, focus on the United Nations Sustainability Development Goals (SDG). SDGs permit a wide range of voluntary disclosure. Several other participants focused on isolated carbon reduction or environmental metrics based on either the Paris Accord Agreement or the EU Taxonomy of environmental factors.

Challenges in implementing ESG strategies include current regulatory and taxonomy inconsistencies that are impediments to more reliable disclosure, the cost of implementation with anticipated longer-term payback on initiatives, the lack of familiarity with new technologies that impact the ability to evaluate and manage portfolio



risk, and the challenge of prioritizing ESG implementation against other business imperatives to ensure that there is internal transparency as to how decisions are being made and how these decisions align with corporate strategy.

Opportunities that emerge from a defined focus on ESG include leveraging longer-term accretive business value related to initial investments, infusing a corporate culture around ESG responsibility that extends to partnerships, expanding market segments and industries to more specifically focus on sustainable portfolios, and addressing millennial concerns to enhance recruiting.

Lastly, participants felt strongly that industry organizations such as the Equipment Leasing and Finance Association should play a role in providing periodic regulatory updates, general education, best practices, and overall thought leadership in support of ESG strategic initiatives.

### **Internal and External Considerations for Financing ESG Assets:**

Key to the success of an ESG strategy is that the organization embraces the strategy and recognizes the imperatives and opportunities. All of our respondents reported the focus of their boards of directors on performance relative to ESG or SDG goals, and all but one has cascaded responsibility for the initiatives to personnel at the operating level. Responsibility for initiatives within the strategy can be with a key employee (e.g., Deputy CEO, Chief Diversity Officer, Director of Green Energy, etc.), a team (e.g., Executive Leadership Team, Women in Leadership, Employee Network Group), or a department (HR, Green Initiatives, e.g.) to manage and report back to the board on ESG results. While none of our respondents tied compensation directly to ESG performance, most had some relationship to compensation through departmental and management goals that are cascaded down through the organization.

All of our respondents reported targeting or planning to target certain green industries or business types as part of their business development strategies. These fell into several categories:

- Electric vehicles and related infrastructure
- Sustainable energy (solar, wind, lighting and HVAC retrofits, etc.)
- Provision-of-care healthcare equipment
- Water reclamation
- Sustainable and humane agriculture
- Disadvantaged Business Enterprises or DBEs (businesses owned by minorities, veterans, females, LGBTQ, or other economically disadvantaged parties)

Typically, participants targeted markets adjacent to asset classes they were already serving, leveraging existing experience and expertise in those markets. For instance, those financing trucks were moving to finance electric delivery vehicles or were utilizing intangible asset expertise from software financing to apply toward funding energy efficiency projects. Where internal expertise didn't exist or needed to be adjusted, respondents involved the credit and asset management departments as part of strategic discussions. All participants underscored the importance of asset management going forward due to the unknowns created by rapidly changing technology. All nine are also either currently or planning circular product offerings due to client demand, aided by manufacturers' commitments to sustainability.

Eight of our nine respondents reported being in varying stages of assessing their supply chains for ethics, labor practices, DEI issues, pollution, and other ESG-related concerns. These efforts are relatively recent and

mostly cursory in nature but were expected to become more thorough over time. A majority also reported that clients, partners, and funding sources are starting to inquire as to their companies' ESG-related efforts. These also are cursory in nature but are expected to evolve to more stringent requirements. One company has engaged a third-party ESG rating company to assess their initiatives and utilize the resulting rating as a tool for RFP responses and other ESG-related inquiries.

One participant reported offering carbon offsets as part of their finance offerings, with one more having a requirement to purchase carbon credits to offset the impact of corporate air travel. While these arrangements are still uncommon, they are expected to increase as more borrowers, banks and financial institutions sign on for net-zero carbon commitments.

A significant majority of companies indicated that there was a board-level focus on ESG, most often measured in terms of the impact on UN SDG's. Some spoke of the ESG management focus in terms of positive directives or subjective focus areas that were nevertheless viewed as important ESG elements. A focus at the board level solely on financial performance was rare. International banks stood out as having the most advanced board-level governance of ESG followed by captives. They discussed the boards' responsibility not only for creating the ESG framework but also for reviewing associated risk measurement policies.

There was no hesitation in the interviews that DEI is a key priority across the equipment finance ecosystem. Without exception, the discussions revealed significantly enhanced diversity efforts since the beginning of the pandemic. The importance of DEI from recruiting, retention, business results, brand, and risk mitigation came across resoundingly clear in the interviews. Although there might be information provided on DEI progress in company level CSR or ESG reporting it is not currently included in KPIs with direct connection to executive compensation or transaction underwriting but is under consideration for the future.

## **Section 6 Summary: ESG Disclosure and Frameworks**

Section 6 explores global efforts to assist primary stakeholders in understanding, contributing to, and adapting to standardization frameworks that will be used to address disclosure and measurement requirements.

Topics and key messages include the following:

### **ESG Disclosure Feedback:**

Although multiple external surveys on sustainability demonstrate a substantial increase in disclosure by most large global companies, there is also feedback that ESG data collection, standard setting, and disclosure is an alphabet soup of acronyms that have fostered an environment of chaos, confusion, and conflict. Public companies have had to navigate a wide range of optional and required disclosure expectations. External survey feedback further confirmed that developing consistency in frameworks and standards will require cooperation from various stakeholders and standards setting organizations and that assurance methodologies will be required to promote data integrity and consistency.

### **ESG and Sustainability Reporting Ecosystem:**

The complex and ever-changing level of requirements, enabled by the unlimited supply of sustainability information and information assurance services, has contributed to the proliferation of ESG standards' setting and frameworks initiatives. Frameworks and standards are complimentary parts to the overall ESG and sustainability reporting ecosystem. Where frameworks provide guidance on how information is structured

for disclosure and what topics should be covered, standards create specific metrics and actionable reporting requirements for topics covered under the framework. Standards make ‘frameworks’ actionable. Current efforts to create standards and frameworks represent an attempt to bring order to chaos for sustainability reporting. Unfortunately, these efforts are characterized by a wide range of interests and organizations with unique sets of stakeholders and unique definitions on materiality. Three of the most influential initiatives are the following:

**International Sustainability Standards Board (ISSB):** 5 pre-existing standards setting organizations, led by a newly created International Sustainability Standards Board (ISSB), currently has the support of the G7 and International Organization of Securities Commissioners (IOSCO). However, the US Securities and Exchange Commission (SEC) and the European Commission are withholding full support to ensure that worldwide politics are not injected into the process or otherwise undermine the current reliability of financial reporting. The Sustainability Accounting Standards Board (SASB) is one of the key organizations included in this ISSB harmonization initiative. It is expected that their efforts to create measurable standards for over 70 different industry sectors will be widely utilized in other initiatives.

**UN Sustainability Development Goals (SDG):** These goals were established in 2015 by the United Nations General Assembly as a blueprint for a more sustainable future. SDGs are 17 very broadly defined interdependent issues facing humanity. Each of the 17 UN SDGs has multiple targets and indicators with which to monitor or measure progress. The Sustainability Accounting Standards Board (SASB) has successfully mapped over 90% of its own standards to the SDG goals and individual targets. Where the UN SDGs created momentum to help companies and investors understand the impact of long-term sustainable business models, SASB (now part of the ISSB initiative) provided a view as to whether these sustainability issues were financially material to companies in a specific industry.

**EU Corporate Sustainability Reporting Directive (CSRD):** The CSRD, published in April 2021, amends the 2014 Non-Financial Reporting Directive (NFRD). The NFRD required larger listed companies with more than 500 employees, to disclose information on the way they operate and manage social and environmental challenges. The new CSRD addresses demand for enhanced scope related to reporting standards. It will mandate reporting and assurance activities to all large listed and unlisted EU companies as well as small, listed companies. This will improve the ability to achieve an EU goal of having sustainability on par with financial reporting. The standardization of sustainable reporting is one of the most important aspects of the CSRD. The EU Commission has made it clear that it is their ambition to align with other EU initiatives so that there is no duplication in reporting requirements.

### **Stakeholder Perspectives:**

Stakeholders in the investment community, SASB, Value Reporting Foundation (VRF), Securities and Exchange Commission, accounting firms, academia, and others provided valuable insight on the current landscape of standard setting and the challenges that exist in driving towards more consistently applied and meaningful data. Commonly referenced issues include the need for convergence of standards and frameworks, the lack of materiality guidelines, inconsistency in data and data assurance, the implications of dealing with the dynamic nature of ESG issues, implementation costs, and the risk of political overtones that get in the way of giving investors the tools to evaluate a company’s sustainability performance. A pervasive comment from all stakeholders was that the best companies tend to integrate ESG into the fiber of the company’s overall strategy even if disclosure is not yet robust.

## Section 7 Summary: ESG Value Creation and Execution Focus

Section 7 provides practical guidelines to establish an ESG strategy within an organization.

### Value Creation and Execution Focus:

The ability to leverage ESG to create value involves a strong management commitment to incorporate ESG into the core strategy of the company. At a minimum, this involves a multi-step approach to successfully execute an ESG value creation strategy by prioritizing ESG factors based on materiality, establishing verifiable data sources to assess opportunity and risk, defining a disclosure and communication process, aligning strategic targets and assigning accountability, and, finally, soliciting on-going stakeholder feedback to maintain a dynamic prioritization process.



# ESG Overview

Section 3 defines the elements of ESG and includes a high-level perspective on how and why ESG has evolved to where it is today.

## ESG Defined

The acronym, ESG, is a reference to environment (E), social (S), and governance (G) factors used to evaluate, measure, and predict corporate financial performance based on the sustainable and ethical impacts associated with these factors. Although there can be a significant number of variables that are ultimately monitored and measured by different companies, **Exhibits 1,2, and 3<sup>3</sup>** provide key examples of specific indicators that are more commonly used to score the individual ESG performance of a company. These predictors, as well as others, can be used within the equipment leasing industry to focus on improving internal progress towards ESG as well as scrutinizing potential customers beyond traditional underwriting practices.

Environment factors relate to activities that measure stewardship of the environment. These might focus on energy use, pollution output, and overall risks and opportunities associated with the impacts of climate change on the company, business, or industry. Variables that represent strong predictors for environmental factors include those in **Exhibit 1**.

Exhibit 1: Environmental Key Predictor Examples

Environmental	Examples of Key Predictors
	Environmental training for employees
	Supplier selection policy based on environmental supply chain criteria (e.g. ISO certifications)
	Emissions reduction policy and targets
	Renewable energy and energy efficiency policy and targets
	Natural resource reduction policy and targets

Source: The Alta Group, LLC

Social factors are used to examine a company’s focus on its relationship with people and society. These might include the ability to address employee diversity and inclusion as well as health and safety, human rights, faith-based issues, and social and civic responsibility. Variables that represent top individual predictors for social factors include those in **Exhibit 2** (see next page).

**Exhibit 2: Social Key Predictor Examples**

Social	Examples of Key Predictors
	<b>Work-life balance</b> demonstrated by policies supporting flexible working hours
	<b>Human rights</b> policies, compliance with human rights convention of the ILO, support of the UN declaration of human rights
	<b>Supplier selection</b> policy that includes human rights criteria

Source: The Alta Group, LLC

Governance factors are used to measure strengths or weaknesses in decision-making related to diversity, shareholder rights, and compliance with corporate, country, and global rules and policies. These can include a focus on how well the company is managed, reporting transparency, ethics, shareholder rights, and the composition and role of the board of directors. Although environment and social factors tend to get more widespread focus than governance metrics, companies that fail to address governance requirements are more prone to mismanagement and are generally less capable of leveraging key business opportunities<sup>4</sup>. Variables that represent top individual predictors for governance factors include those in **Exhibit 3**.

**Exhibit 3: Governance Key Predictor Examples**

Governance	Examples of Key Predictors
	<b>Diversity</b> demonstrated by % of representation
	<b>Sustainability and/or responsibility reporting</b> published separately or incorporated into annual report
	<b>Global Contract Signatory</b> to UN Global Compact (non-binding United Nations pact to encourage sustainability and social responsibility policies and to report on their implementation)
	<b>Stakeholder engagement</b> procedures to engage stakeholders in decision-making process

Source: The Alta Group, LLC

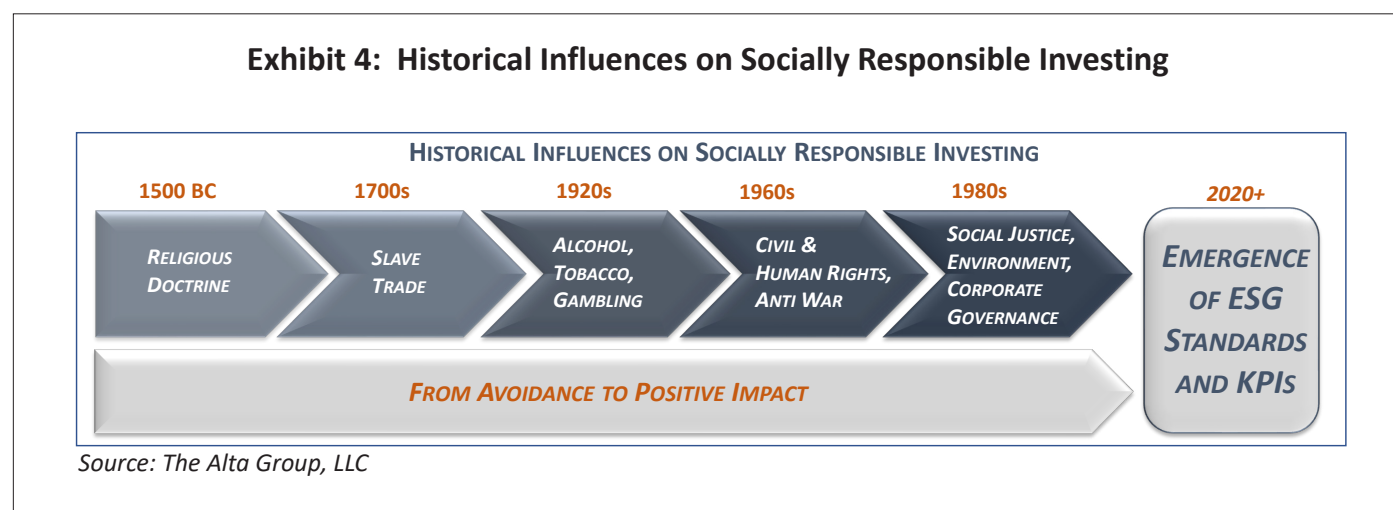
## Migration to ESG

Although return on investment has always been a key focus for investors, there is accelerating demand for investments that can provide more than that. Millennials and Gen Z search for options where a company's values align with their own in providing a positive social impact. This broad category of investing is often referred to as Socially Responsible Investing (SRI).

Socially responsible investing has roots dating back to 1500 BC when faith-based organizations screened investments in foods and activities that deviated from values associated with religious doctrine. By the 18th century, social and human rights advocates, fueled by the fervent beliefs of Methodist and Quaker religious groups, added slave trade activities to the expanding list of value-based avoidance screens. In 1928, a Christian group established the Pioneer Fund as the first publicly available investment fund with a focus on screening out investments in designated sin industries that included alcohol, tobacco, and gambling. For the next 40 years, SRI investing, and the funds that were publicly available primarily focused on avoiding these sin industries.

When civil rights, human rights, women's rights, and anti-war sentiments ultimately emerged as key social issues in the 1960s and 1970s, these issues considerably broadened the context of SRI and was then followed in rapid succession over the next two decades by a variety of other environmental, social and governance related investment focused advocacy. In 2005, the United Nations Environmental Program commissioned a report to examine the integration of environmental, social, and governance issues into investment policy. There was a strong belief that ESG metrics would provide necessary links to financial performance and investment risks. The report concluded that incorporating ESG into investment policy should be considered a fiduciary duty. This became a catalyst for introducing the demand for data analysis of ESG. When climate disclosure requirements in Europe and the U.S. became mandatory, this served to further improve the quality of data collected and analyzed. Today, a key focus on ESG metrics is to determine those that the SEC, investment, and business communities determine to be material to long-term financial performance.<sup>5</sup>

**Exhibit 4** reflects the historical influences of evolving social norms on socially responsible investing culminating with the emergence of standards and Key Performance Indicators (KPIs) related to ESG.

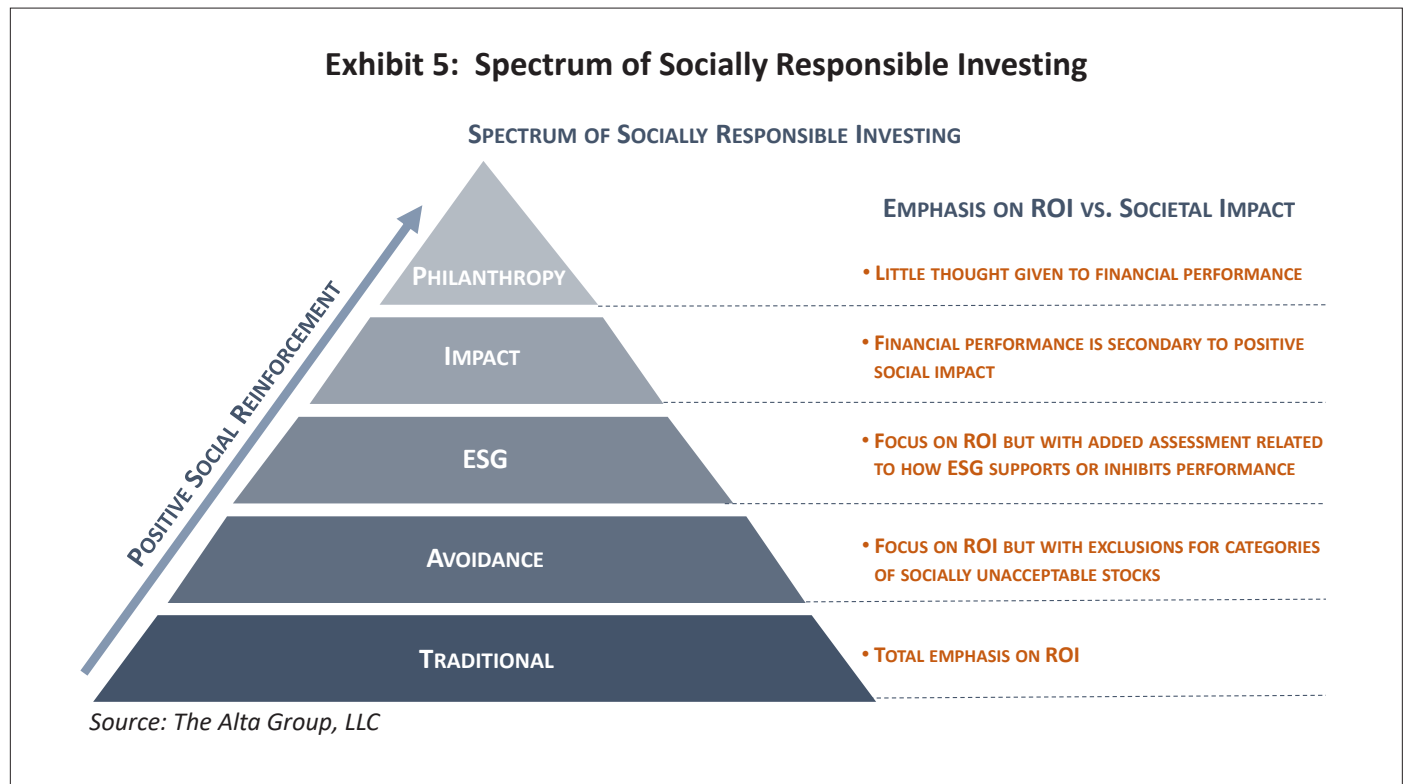


## Spectrum of Socially Responsible Investing

Motives of investors will always influence the investment selection process. Although references to ESG and socially responsible investing (SRI) are often used interchangeably, there is a perceived spectrum of investing that might be divided into 5 categories. At the lowest level, traditional investing is singularly focused on Return on Investment (ROI). It is still the most prominent form of investing today. Stock avoidance investing, one step up from traditional investing, has similar ROI objectives but isolates and eliminates investments in specific stocks or funds that are contrary to the values of the investor. As advocacy for positive change becomes increasingly more important for some investors, the tone of investing also changes. Rather than eliminating funds and

stocks that are contrary to the values of the investors, there is more focus on rewarding companies who aspire to effect positive change. This has resulted in the rapid emergence of ESG and impact investing. ESG investing still has a very strong ROI objective, and the majority of the funds can have some form of avoidance screening, but it also requires an investment assessment based on ESG scores relative to the associated industry. ESG scoring attempts to assess and predict how well the investment will perform when faced with a requirement to address emerging global issues.

Companies will be judged on criteria that can include access to and responsible use of natural resources, creating compliance policies to deal with ever-increasing regulatory burdens, and institutionalizing programs that adequately address governance and critical social programs. More recent availability of ESG data has enabled the ability to measure and promote the growth in ESG investing. ESG investors, in general, share a common belief that a strong commitment to sustainability and positive change will also build long-term value for stakeholders in the form of financial success. Impact investing takes the level of SRI one step further along the scale of advocacy. An impact ‘purist’ will often ignore deficiencies in ROI to support a specific cause. At the furthest end of the advocacy spectrum, there is philanthropy, where ROI can be totally ignored in favor of inspiring positive change in the world. Impact and philanthropic investing are generally limited to private funds while ESG and other SRI types of investing usually involve publicly traded assets and institutional funds.<sup>6</sup> **Exhibit 5** provides a representation of the five levels of investing related to social responsibility.



## Growth in ESG Assets Under Management

Although there can be specific ESG-related asset groups, ESG, by itself, is not an ‘asset group’. It is a risk management process that can apply to all funds and assets under management. Integration of ESG risk into asset management is a prudent part of that process. Global ESG assets under management are expected to



exceed \$50 trillion and represent over one third of the projected \$140 trillion total assets under management by 2025. As of July 2021, ESG Assets Under Management (AUM) are \$35 trillion with the U.S. representing almost half of this amount at \$17 trillion.<sup>7</sup> Some of the growth in U.S. representation of ESG assets under management stems from the fact that in March 2021, the European Union implemented the first phase of the Sustainable Finance Disclosure Regulations (SFDR). These regulations aim to prevent the practice of making false or exaggerated sustainability claims known as ‘greenwashing’. In one study from an International Consumer Protection and Enforcement Network (ICPEN), it was found that greenwashing was a pervasive practice with 40% of sustainability claims defined as misleading.<sup>8</sup> As a consequence of the first phase implementation of these regulations, over \$12 trillion of previously branded European ESG assets were excluded from ESG assets under management, boosting the relative growth in U.S. ESG assets under management. Those assets not excluded have been characterized under three different categories with varying levels of required sustainability commitments and disclosures.

Although SFDR is recognized as a first step towards providing more clarity around ESG reporting and disclosure, it is still plagued with feedback that the rules are imprecise and open for interpretation. The Biden administration is under similar pressures in the United States to address the pervasive problem of greenwashing despite almost thirty years of efforts by the Federal Trade Commission (FTC) to prevent it. At a minimum, this increased pressure has prompted establishing climate change units within various agencies (e.g., Department of Treasury, Federal Reserve, and the Securities and Exchange Commission) to examine guidelines for ESG disclosure and measurement<sup>9</sup>.

# ESG Challenges and Opportunities for the Equipment Leasing & Financing Industry

## Funding and Capital Markets

Just as standards and disclosure frameworks are numerous and quickly evolving, ESG-related funding implications for the equipment finance industry are just beginning to emerge. In an industry with an average debt to equity range of 5:1 for independents and 10:1 for banks, a keen understanding of the dynamics through which funders are viewing relative ESG risks and opportunities in capital deployment is critical. However, given the relative risk-return attractiveness of equipment finance assets compared with other asset classes, coupled with the current capital rich and a relatively low-rate environment, significant ESG specific impacts on funding are likely to be somewhat muted in the near term.

Bank-owned, independent, and captive equipment finance companies rely in varying degrees, on a combination of warehouse/bank lines, revolving debt, asset-backed securitization, and syndication for funding. Feedback during research within the equipment finance ecosystem revealed that ESG impacts on bank lines and debt are, so far, rare and qualitative although most interviewed expect that ESG factors will become increasingly important within the capital markets over the medium term. From a required disclosures by funders standpoint, an independent lessor interviewee noted that a bank arranging a bond offering provided a questionnaire to be completed inquiring about ESG-related strategy and risk.

An air of optimism was conveyed about the potential for ESG focus among lenders to the industry to have a positive impact on borrowing for equipment lessors. This outlook is based on a belief that leasing assets have a long history of refurbishment and remarketing, lending them to circular economy frameworks which are seen as a desirable area for capital deployment. Industry focus in ESG favorable sectors such as renewable energy, electric vehicles, agriculture, and healthcare may create a potential tail wind effect in negotiation with lenders. A CEO of an independent lessor noted that their focus on financing in key ESG-related areas had a positive impact in attracting capital and negotiating favorable terms.

## Asset Allocation – Industry Impact of the Glasgow Financial Alliance for Net Zero (GFANZ)

Launched in April 2021, GFANZ represents 450 financial institutions controlling over \$130 trillion in assets across 45 countries. During the November 2021 COP26 conference, GFANZ released a report on progress and plans towards the net-zero global economy. In that report, Mark Carney<sup>10</sup>, (UN Special Envoy for Climate Action and Finance and the UK Prime Ministers' Finance Advisor for COP26), noted that "the investment requirements are enormous, between \$100 trillion and \$150 trillion over the next three decades."<sup>11</sup> Although their specific metrics and disclosures are still under development with guidance expected by mid-2022, there is a stated focus on measuring the impact of investments including scope 3 emissions. Scope 3 emissions are the result of activities from assets not owned or controlled by the reporting organization but that the organization indirectly impacts in its value chain.

"To ensure adequate investment is made to support the transition to net zero, we are actively working to make climate a central consideration in all financial decisions. As part of that we seek to accelerate the development, amplification and mainstreaming of leading practices and tools for the financial system to create and operationalize their climate objectives and transition plans." (Mark Carney, UN Special Envoy for Climate Action and Finance at GFANZ announcement at COP26)

Given the ambition and intended measurement focus of GFANZ, it is reasonable to expect that deployment of capital equipment will be within climate remediation, transition, or readiness contexts will be an area of focused investment. The vast number of banks, asset managers, asset owners, and insurance companies that comprise GFANZ membership, along with their investment objectives could attract significant additional capital to the equipment finance industry. Sectors with direct emissions reduction impact, such as EV's and renewable energy, and circular economy solutions will likely enjoy the significant capital allocation.

### **ESG Impact on ABS**

Equipment ABS is a critical funding tool for the independent and many bank-owned equipment finance companies. In fact, ABS is also a stellar performer from a credit standpoint. No other asset has generally performed better from a loss perspective except U.S. Treasuries. Going forward, the key questions are how ESG factors will impact credit ratings and investor appetites for ABS issuances.

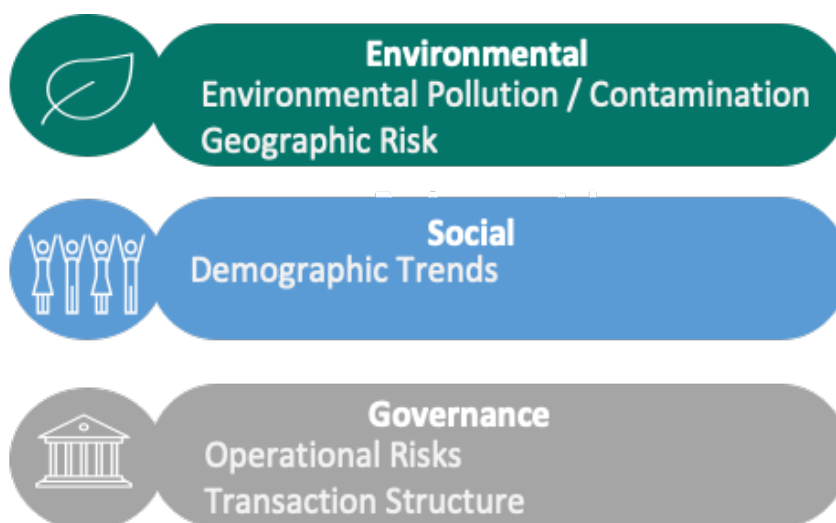
Rating agencies have long developed various in-depth frameworks to assess ESG default risk related to entities and sectors. They also play a critical role in the ABS market assigning ratings to specific offerings indicating relative risk of default. Ratings for ABS issuances consider factors such as corporate linkages to the issuer and/or servicer, the underlying lease or loan assets, and an assessment of the overall structure of the vehicle. ABS ratings are distinct from entity or sector ratings in that the analysis is focused on a fixed set of assets over the specified time frame. It is important to note in all cases the agencies are assessing the likelihood of default within the issued asset pools rather than an evaluation of the relative attractiveness of the investment. The intent is to offer data and transparency for potential investors to use in their own investment analysis. Further, since ABS offerings typically represent a spread of asset, borrower and geographic risk, credit enhancements, and transaction structure, it is common for the rating of an issuance to be overall more favorable than the overall rating of the issuer.

Rating agencies have largely taken an organic approach to assessing ESG related credit risk as the factors that can have an impact are largely elements that have always been part of the agencies assessments. As such, ESG considerations, rather than containing new data are called out in specific ESG sections or ratings. What follows are high-level summaries of rating agency treatment of ESG assessment in recent ABS reports.

KBRA, (Kroll Bond Rating Agency), is active in ratings in the equipment ABS market. In a recent analysis for a securitization by Encina,<sup>12</sup> a section on ESG factors is included in the report. KBRA does not assign a separate score or ESG rating for ABS issuances. Instead, ESG factors are integrated into the analysis and a separate ESG section discusses potential ESG risk factors and mitigants. **Exhibit 6** (see next page) illustrates the ESG factors highlighted in the report. The environmental factors mentioned are pollution/contamination and geographic risk. The pollution comments indicated that the pool may include vehicles such as trucks that are subject

to emissions standards and the recovery of older, non-compliant vehicles can be negatively impacted. The geographic risk section noted that “high state concentration leaves the collateral pool susceptible to adverse economic conditions, regional recessions and natural disasters which may negatively affect loan performance or collections.” This risk is mitigated by including a geographically diverse pool. The social element identified is demographic changes that drive consumer preferences which are mitigated via diversity in the pool of obligors, industry, and equipment type. The governance elements identified are operational risks and transaction structure. KBRA incorporates evaluation of key processes such as underwriting criteria, collections policies, residual setting policies, and disaster recovery and makes adjustments to the base case loss assumptions – positive or negative - based on the evaluation. Transaction structure was specified as an important governance factor. Examples of items reviewed are adherence to representations and warranties, compliance with credit and eligibility criteria and, reporting on collateral performance.

### Exhibit 6: ESG Factors Highlighted in the Report



Source: The Alta Group, LLC

Both Moody's and Fitch Rating provided reports on the recent John Deere Owner Trust 2021-B.<sup>13</sup> Fitch provides ESG relevance scores for corporates and their issuances. They assign a relevance rating of 1-5 with 1 indicating no impact and 5 meaning ESG factors have a high impact.<sup>14</sup> In the report on the John Deere Trust Fitch assigned an ESG relevance score of 3 meaning such issues are credit-neutral or are expected to have minimal impact. The report indicates that the rating is due to the fact that extreme weather events can adversely alter agricultural conditions resulting in diminished crop yields and associated cash flows. The rated pool has less than 15% exposure in states recently experiencing such adverse effects, namely, California, Iowa, and Nebraska.<sup>15</sup> Moody's rating indicated that at least one ESG consideration was material to the credit rating action for the offering.<sup>16</sup> Moody's can issue a CIS, (credit impact score) if ESG factors are determined to have a material impact on the overall entity or issuance rating.<sup>17</sup>

A recent example of a green ABS is the Trinity Rail secured portfolio railcar equipment notes issued in June 2021 – their third such offering.<sup>18</sup> The report states that the leases were originated pursuant to Trinity Industries Green



Finance Framework which is designed to allow Trinity to issue green bonds. Proceeds from the ABS issuance will be used to finance or refinance eligible green assets in the low-carbon transportation category. The ESG section of the report identified asset-related compliance risk and transaction reporting in accordance with Green Bond designation. Trinity released their Green Financing Framework in January of 2021 in accordance with Green Bond Principles (GBP) set out by the ICMA, (International Capital Markets Association).<sup>19</sup>

A 2020 survey from the Structured Finance Association found a significant shift in focus towards ESG strategies.<sup>20</sup> The top reasons issuers of securitizations cited for implementing ESG strategies and communication frameworks were alignment with corporate values and demand from investors.<sup>21</sup> The survey further noted that although respondents indicated that 88% do not currently target ESG investors or funds, 43% indicated that they are developing ESG-focused issuance programs.<sup>22</sup>

### **Bank Facility Implications:**

Equipment finance companies with sustainability goals and their lenders should look into sustainability-based bank facilities. A number of ESG-based bank credit facilities have been announced over the past year in the large corporate space, under which pricing increases or decreases based on the borrower's results against its sustainability goals. As an example, in early Q4 2021, Ford announced that it had entered into a bank facility, in which the following performance metrics are used to determine periodic pricing, including:

- Reducing GHG emissions from its manufacturing plants
- Increasing the percentage of renewable electricity consumed in the company's manufacturing plants, with the ultimate goal being 100% by 2035, and
- Lowering Ford of Europe's CO2 tailpipe emissions per passenger vehicle consistent with EC standards and Ford's carbon neutrality goals.

Banks with ESG-based offerings include Wells Fargo, Bank of America, Citi, HSBC, Deutsche Bank, Mizuho, and others. Borrowers and lenders can potentially see lower cost of funds by utilizing such a structure and have it be managed through the normal compliance process. Key to implementing such a structure is to establish clear, measurable, and unambiguous targets.

## **Underwriting and Portfolio Management**

### **Underwriting Implications:**

Industry participant interviews showed that most of the interviewees who are pursuing an ESG strategy are looking at ESG as a business segment rather than converting the entire originations focus to ESG assets. As such they are committing a prescribed amount of funds to "green assets" as part of their overall portfolio. Therefore, the focus to date has been on the environmental impact of the assets rather than underwriting individual transactions for an ESG score or including ESG data into an existing scoring model. As the industry's participation in ESG matures, it is likely that ESG factors will work their way into the transaction underwriting process, driven by availability and pricing of funds, utilization of Green Bonds as a funding mechanism, etc. As mentioned elsewhere in this paper reporting will depend on the availability of reliable ESG-related data generated by potential clients or available through third parties such as rating agencies and the ability to work this data into a format consistent with existing scoring models and Risk Assessment Criteria (RACs).

To the extent that a transaction relies on the benefits of the project to create the ability to repay the obligation, underwriting must focus on the predictability of cash flows (or cash flow savings), the type and duration of any tax or financial incentives, the available support of a strong third party, secondary markets for the underlying asset(s), as well as any transaction-specific risks identified in the underwriting process.

### **Insurance Implications:**

As portfolios of green assets grow, a shift in insurance risks is likely to occur, as different risks and mitigants arise from the use of such assets. For instance, EVs typically cost more to insure than their gasoline-powered counterparts because they are initially more expensive and cost more to repair in the event of a crash than gas-powered vehicles. Other factors include the potential for battery fires from lithium-ion batteries, liability from autonomous vehicles, drone-related privacy and property damage issues, increasing weather-related claims due to climate change, and others.

As a whole, however, transparency in ESG provides insurance companies a view into data that can be used as risk assessment tools. According to a study by Allianz and the research firm, The Value Group,<sup>23</sup> there is increasing scientific evidence that companies with favorable ESG metrics outperform their less sustainable peers from a risk standpoint. More sustainable companies attract higher quality employees and motivate their workforce; they gain a reputation advantage over their competitors, and they attract less regulatory and fiscal backlash. The findings indicated that a commitment to ESG was highly predictive regarding losses relating to regulatory fines and risk created by the general wherewithal of the business. ESG is also correlated to workforce safety and health risks and general claims.

Directors and Officers (D&O) insurance protect the personal assets of the leadership of the company and their families against actions brought against them in the operation or management of the company. ESG necessitates improved governance, better information, social awareness, and environmental diligence. Logically, it seems that as corporate awareness of and commitment to these issues improves, D&O claims should be reduced. The greater awareness of such issues among investors, employees, and the general public, however, makes the opposite also potentially true. Despite safe harbor protections provided by SEC regulations, disputes over compliance and liability can be more likely to happen going forward, making D&O insurance just as important as ever.

### **Asset and Sector Concentration Risk:**

Although certainly on the radar screens of leasing and finance companies, asset and sector concentration arising from ESG financing are likely too new to be a major risk to date. Irrespective of any ESG designation, traditional risk management hallmarks remain critical to the success of any equipment finance company. These include managing and setting limits on vendor, end-user, geographic, and equipment concentrations, as well as performing periodic portfolio reviews to address such concentrations before they become problematic. The proliferation of new vendors, companies, and technologies and the reliance on continuing services and warranty coverage underscores this need.

Much of the equipment described herein have broad application across multiple industries, such as EVs and IT equipment. As for markets such as agriculture or healthcare, the market should be underwritten, and exposure limits set by individual balance sheets and risk appetite. As has always been the case in this industry, newer technologies and vendors/manufacturers should dictate selecting end-users who can pay regardless of performance of the equipment and ensure documentation terms address the unconditional obligation to pay.

### **End-User Sector Challenges:**

Much of the equipment described herein is not sector-dependent and should not necessarily create concentrations in end-user types. Others, such as EVs, aircraft, healthcare, etc. are specific not only to an overall market, but also specialized sub-markets that need to be analyzed and managed just as if ESG was not

part of the strategy. Lower demand for office equipment due to expanding work-from-home policies, and fewer financing opportunities for mining and fossil fuel production are current market shifts that need to be monitored and managed. Each organization needs to be committed to traditional credit, portfolio management, and asset management tenets along with its commitment to ESG to ensure the ultimate success of the strategy.

### **Change Management and Monitoring:**

Due to its relative newness as a business classification, most firms financing ESG assets generally have segregated the assets in some fashion to make them identifiable in the broader portfolio, but the transactions' assets are not actively managed for ESG-related issues within the portfolio. For instance, if a transaction qualifies under an ESG strategy at origination (e.g., E-Vs or clean energy projects), they stay there for the life of the transaction. If an issue arises due to a governance problem, such as data security, or a social issue like a supplier using child labor, those assets continue to be tracked as "ESG Assets." As the market matures, it is likely that more active assessment of a transaction's inclusion in an ESG portfolio will be required by fund managers and lenders to maintain an ESG designation.

Prudent managers of equipment finance businesses will want to segregate their ESG portfolios to assess performance over time. Reporting will likely need to become more detailed and custom as the market matures, meaning that industry participants will want to build in flexibility to allow the reporting to evolve over time. Industry participants should begin addressing information and reporting gaps before devoting significant capital to these markets.

### **Implementation and resistance to change:**

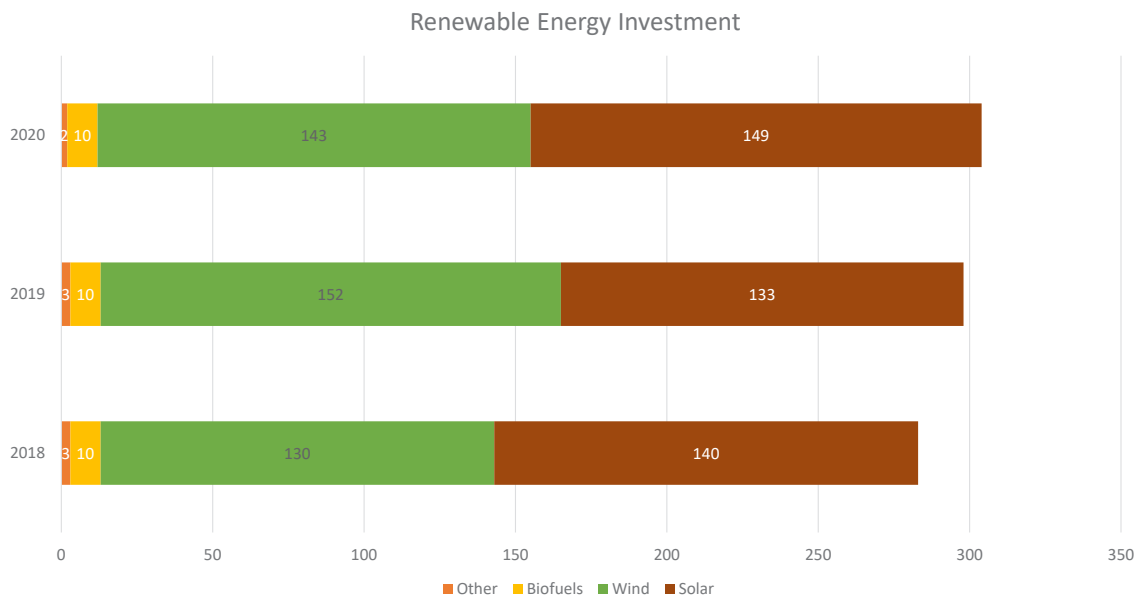
Irrespective of the best intentions of senior EF management, ESG-based transactions will still need to work through established (in many cases long-established) transaction approval processes and RACs. One of the factors our interviewees identified as a key to success is the necessity to clearly communicate the strategy and obtain the buy-in and commitment of personnel critical to the success of the strategy. A study by McKinsey and Co.<sup>24</sup> indicated that the most important factor in the implementation of a new strategy is to create clear ownership and commitment to the change. This involves communication of the call to action, obtaining employee buy-in, and involving employees in the implementation and management of the process. In addition, management must "walk the talk," committing to ESG principles part of the culture rather than just a buzzword.

## **Key Industry Segment Opportunities and Risks**

### **Key segment drivers:**

The pandemic uncovered systemic risks and accelerated necessary investments to mitigate climate risk and drive DEI progress. The UN estimates that the level of investment required to attain the SDGs by 2030 is about \$5T per year. During 2020, investment in the 'E' element of ESG, particularly, decarbonization or energy transition topped \$500 billion despite disruptions caused by the pandemic<sup>25</sup>. This level of committed capital exceeded the previous year by 9%. Key areas of investment were renewables, up 2% year over year, and electric vehicles up a whopping 28%. The largest year-over-year increase was in CCS, (carbon capture and storage) up 212% to \$3B in this nascent but critical investment area. China topped the investment with \$135 billion, (down 12% year over year). The U.S. came in second at \$85 billion, (down 11% year-over-year), with the largest investment in renewable energy followed by electrified transport. **Exhibit 7** (see next page) illustrates investment in clean energy, a key area of investment in achieving carbon reduction targets.

**Exhibit 7: Global Investment in Energy Transition by Sector (NEF, 2021)**



Source: The Alta Group, LLC

Spending in energy transition is clearly on the rise and critical to climate risk mitigation. Capital equipment across industries is a vital component of the solution in energy, transportation, and many other ESG-related sectors. Industry interviews uncovered sectors seen as areas of particular importance in equipment finance. In this section current and future opportunities in equipment finance in transportation, healthcare, IT and network infrastructure, renewable energy, buildings, and food and agriculture will be explored. **Exhibit 8** (see next page) highlights the areas industry participants indicated they are focusing on as part of their ESG strategy. Healthcare and energy efficiency topped the list followed by electric vehicles and food and agriculture. In this section ESG-related capital equipment market segments that represent material finance opportunities are summarized. The sectors reviewed include transportation, IT, including network infrastructure, healthcare, energy, and agriculture. Finally, transition opportunities in energy and carbon emissions are reviewed.

Another generic driver for the industry is the market shift from traditional financing to usage and bundled managed services offerings. These offerings support the migration to a more circular economy. Following this 'Industry sectors opportunities' section is a section that more specifically defines circular economy solutions. These solutions are a crucial tool in addressing environmental challenges as they can significantly reduce resource usage while extending equipment utilization and lifecycle. That section defines the elements of a circular solution and the key considerations for equipment finance companies in delivering them.

A related critical dynamic across ESG investment areas is the nascency of the technologies under development. Many, if not most, of the technologies that have the potential to close the gap in addressing climate change are under development or have yet to be invented. Many of these technologies are also components of a bundled solution. The combination of these emerging technologies, many not yet proven or at commercial scale, along with the bundled nature of circular solutions will likely require finance companies to consider a broader spectrum of risks and potential opportunities. The key considerations discussed in the circular economy section provide a roadmap to more effectively implement circular offerings.

### Exhibit 8: Industries Included in Portfolio Because of ESG Focus



Source: The Alta Group, LLC

### Transportation:

For many finance companies, transportation is a logical entry point into ESG financing, as it is both familiar and impactful. The industry has significantly and steadily reduced emissions over the last 20+ years and is the center of a number of innovations arising from new technology and refinements to existing technology. These include, but are not limited to the following:

### Vehicle and Fuel Technology:

**Battery-Powered E-Vehicles:** Amazon has grabbed recent headlines by committing to acquire 100,000 electric delivery vehicles from Rivian, a startup EV manufacturer in which it has a significant investment. In addition, Volvo announced an order of 100 of its FM Series electric trucks by European shipping and logistics company, DFDS. Beyond the headlines, traditional manufacturers like Ford, GM, and Volvo are committing to an electric-powered future with new electric-powered products, by investing in other EV manufacturers or both. Newer companies like Tesla, Workhorse, and Rivian develop clean slate products with substantial investor backing. The most immediate financing opportunity for the industry is in medium-duty electric delivery vehicles, since product is available, and the lack of charging infrastructure can be overcome by proximity to a company-owned facility. Due to the relative simplicity of electric motors, EVs can provide lower maintenance vs. their internal combustion counterparts. They also have lower fuel costs, far better emissions profiles, near-silent operation, and congruence with ESG goals. Additionally, a number of states are offering significant incentives to facilitate the acquisition of EVs.

Disadvantages include higher initial costs, concerns around range, availability of charging facilities, and reliance on lithium supplies for battery production. Most of the world's known lithium supplies are in Australia, Chile, Argentina, and Bolivia and most lithium is processed for further use in China. There is growing concern that we could be trading one finite resource (oil) for another (lithium) and increasing reliance on foreign countries. Another environmental issue to be addressed is what to do with the batteries when they reach end-of-life. While the majority of lithium-ion batteries created for use in EVs are still in service, the industry is addressing ways for the batteries to be reused, recycled, and repurposed.



**Charging Infrastructure:** Obviously, the proliferation of battery-powered EVs necessitates the buildout of a charging infrastructure network. Significant planning needs to go into implementing a charging solution. A reasonable first step is to reach out to the local utility to ensure the availability of power to the site and what government and manufacturer incentives are available to subsidize the build out. There are a number of companies that specialize in building out EV infrastructure. Before undertaking such a buildout, an operator would need to understand the initial and projected fleet sizes, available land for the project, type(s) of vehicles being charged, details about when the charging will take place, the telematics being used, typical route distances, payloads, whether charging will take place indoors or outdoors, and other relevant data. Once all of this has been determined, the utility and EV infrastructure provider can work in tandem to deliver the appropriate solution. The cost of a single port EV charging station ranges from \$300-\$1,500 for Level 1, \$400-\$6,500 for Level 2, and \$10,000-\$40,000 for DC fast charging. Installation costs vary greatly from site to site with a ballpark cost range of \$0-\$3,000 for Level 1, \$600- \$12,700 for Level 2, and \$4,000-\$51,000 for DC fast charging<sup>26</sup>. Depending on the size and complexity of the installation, these installations can make interesting financing opportunities but will come with significant soft costs and collateral risks. The Infrastructure and Jobs Act commits \$7.5 billion to further develop the network of charging stations in order to encourage the transition to EVs.

**Fuel Cells:** Another promising eco-friendly technology in development by Mercedes-Benz, Hyundai, Toyota, Kenworth, Hyzon, and others is hydrogen fuel cell-powered vehicles.<sup>27</sup> These vehicles are powered by generating electricity through an electrochemical reaction as opposed to combustion. In a fuel cell, hydrogen and oxygen are combined to generate electricity and heat, with the only byproduct being water. They are being rolled out now and, similar to EVs, are being deployed where refueling infrastructure exists, like the Port of Los Angeles. The advantages of this technology include carbon-free operation, a near-limitless supply of fuel, near-silent operation, and simpler refueling than plug-in electrics. Negatives include the lack of infrastructure, both for refueling and for the extraction of hydrogen. The hydrogen extraction process is costly and at present requires the use of fossil fuels, partially negating the benefits. Relative to battery-powered electrics, on a per unit of power basis fuel cells, are considerably more expensive, although as the infrastructure is built out, those cost differences could narrow.

**Hydrogen Combustion:** Another technology in development is “burning” hydrogen in an internal combustion engine. This technology has a number of developmental hurdles, as hydrogen is not nearly as energy-dense as the gasoline it would replace, so it would take a very large hydrogen tank to give the vehicle an acceptable range or the hydrogen would have to be compressed, raising potential safety issues in the event of a crash. Another approach to hydrogen as a fuel is green ammonia. Ammonia is made up of hydrogen and nitrogen molecules and can be burned as fuel. While green ammonia has the advantages of being currently produced, its cost is up to 4x higher than fossil fuels and produces NOx emissions. The price disadvantage has the potential to narrow due to scale and a number of companies are developing applications for green ammonia as a fuel.

**Biodiesel:** Biodiesel is an alternative fuel made from organic matter rather than crude oil and represents an interim step between traditional diesels and EVs discussed above. It is far cleaner than traditional diesel fuel, it can be made from almost any organic material, it can be used in any existing diesel engine made after 1987. It also has a number of government subsidies that provide incentives for the production of fuel and building out the necessary infrastructure. Its downsides include proneness to gelling at low temperatures, it can damage rubber engine gaskets and it diverts crops that would otherwise be used for food.

With any new technology, there will be winners and losers, and those participating in the financing of these vehicles will need to be aware of those inherent risks prior to entry. Electric and fuel cell-based truck manufacturer Nikola faces an uncertain future as its CEO, Trevor Milton, has been charged with fraud by the SEC for providing false and misleading information about the status of its products to investors. Despite these issues, the company has created a working prototype and expects to begin deliveries of EVs before the end of 2021 and fuel cell-powered trucks by 2023. The ultimate viability of the venture remains to be seen.

As highlighted above, a number of alternative fuel options exist, with others expected in the near (Dimethyl Ether, or DME) future and over the longer term (such as Hydrogen Combustion). Multiple approaches may gain traction while others are unable to overcome hurdles. As with any emerging technology, it is critical to balance uncertain equipment values and performance with strong documentation and borrowers' credit quality/business prospects in the approval process.

**Delivery Drone and Robot Fleets:** Last-mile deliveries are the costliest and least efficient part of the shipping chain. Companies such as UPS, Amazon, and Google are leading the way toward using battery-powered drones to address these last-mile issues, with each company receiving FAA approval for the use of electric-powered drones for package delivery. Although we are still a few years away from air delivery being common, commercial-use drones are a financing opportunity now, as their use is growing increasingly common in the agriculture (crop and irrigation monitoring) and healthcare (transplant and pharmaceutical deliveries) industries. For drones greater than 55 lbs., the registration and lien perfection processes are essentially the same as for other aircraft, making financing a familiar process for those companies currently financing small aircraft. According to Global Market Insights, the commercial drone market is projected to grow from \$20 billion in 2020 to \$55 billion in 2027, a GAGR of over 10%.<sup>28</sup> Another way the delivery companies are addressing the last mile delivery issue is with delivery robots. These autonomous vehicles navigate sidewalks and secure their contents with an access code provided only to the intended recipient. Deployment has been limited to date in this application, but robots are currently being used in significant numbers in industrial, healthcare, and logistics applications. According to Verified Market Research, the Global Autonomous Delivery Robots Market size was valued at USD 24.30 Million in 2019 and is projected to reach USD 236.59 Million by 2027, growing at a CAGR of 34.30%.<sup>29</sup>

**Aircraft:** In July 2021, United Airlines announced a commitment to buy 100 19-seat electric short haul aircraft from Heart Aerospace, a company in which United has made a significant equity investment.<sup>30</sup> Delivery of these planes is scheduled to begin in 2026, pending FAA certification. The range of 250 miles is largely dictated by the weight of the batteries relative to the size of the aircraft, but the aircraft has the potential to introduce efficient air travel for very short hauls. Traditional turboprop engine maintenance has historically been too expensive to make such travel economically feasible. The viability of electric aircraft remains to be seen, but United's investment in the technology is an interesting initial step.

Several airlines, including Delta and United, have committed to a net-zero carbon policy. A net-zero commitment for an airline is challenging because of reliance on carbon-based fuels. Airlines are gradually converting to Sustainable Aviation Fuel, which still emits carbon, but generates it from more sustainable sources such as Biomass, similar to the biodiesel mentioned above. The net-zero commitments from airlines also rely heavily on utilizing offsets, or commitments of funds to companies that apply these funds to carbon-negative projects such as carbon capture, acquisition, and reclamation of rainforest land, tree planting.

**Maritime Shipping:** Although ocean-going shipping vessels generate 2-3% of global carbon emissions per S&P Global Platts Analytics, several studies have estimated that maritime shipping could account for as much as 17% of global greenhouse gas (GHG) emissions by 2050 if left unregulated. To help address this potential increase, the International Maritime Organization, an agency of the United Nations, mandated limits on sulfur content in its fuel oil effective 1/1/2020. The industry is targeting a 50% reduction in GHG emissions by 2050.<sup>31</sup> The means to achieve this goal will come from shared R&D regarding:

- Utilization of alternate fuels, such as green methanol
- Utilization of zero-emission equipment in the loading and unloading process
- Operational improvements, including use of advanced logistics software
- Design and technical improvements

In addition, a group of twenty maritime financial institutions has formed a group called The Poseidon Principles Association to ensure the assets they finance also meet the IMO 2050 GHG goal. Signatories such as Citi, ABN AMRO, Credit Agricole, Credit Suisse, Société Générale, and others have signed on as part of their overall ESG commitments. The industry association International Chamber of Shipping has gone a step farther than the guidance of the IMO and committed to net-zero GHGs by 2050. Their roadmap includes many of the same methods as the IMO but relies heavily on the utilization of carbon offsets described above to get to net zero.

**Rail:** Rail, on average, moves one ton of freight approximately 480 miles on one gallon of diesel fuel, roughly three times the rate of diesel trucks.<sup>32</sup> While rail is considered relatively eco-friendly in its current form, the industry is implementing ways to reduce GHG emissions. Some of the technologies being utilized are:

- Utilizing electric cranes at intermodal facilities
- Stop-start technology for diesel locomotives to minimize idling
- Implementing computer software systems to calculate the most fuel-efficient speed for a train on a given route; determine the most efficient spacing and timing of trains on a railroad's system, and monitor locomotive performance to ensure peak efficiency
- Weight and friction reduction for rail cars, increasing train capacity

Longer-term, BNSF, in conjunction with the state of California, is testing the feasibility of battery-powered electric locomotives to supply some or all of the propulsion power needed to propel its freight trains.<sup>33</sup> These locomotives are being tested for use in conjunction with diesel-powered locomotives to create a hybrid technology similar to that used in automobiles. At present, the hybrid locomotives are being utilized on a run between Barstow and Stockton, CA., with future deployments dependent on the trial results.

### **Information Technology/Infrastructure:**

The IT departments of many corporations are large consumers of electricity. Despite a focus by many manufacturers to make equipment more energy-efficient and have a smaller footprint, the overall growth in demand for computing power has driven usage that outstrips these efficiency gains and will continue to do so into the foreseeable future. IT manufacturers and consumers have recognized this issue and are driving several initiatives to control the energy consumption and waste caused by these trends. In addition, IT departments can utilize this increase in computing power to trigger energy-efficient initiatives, such as utilizing software to optimize running lines of code, deployment, and utilization of corporate assets and other carbon-reduction initiatives.

IT Equipment Manufacturers have been focused on ESG for a few years and have made significant commitments to the implementation of ESG strategy. In addition to wanting to “do the right thing” for the environment, stakeholders, and society as a whole, a commitment to ESG principles has become a necessary part of their market strategy due to increasing pressure from stakeholders, clients, and governments around the world. Industry participants are in competition for qualified applicants who are increasingly seeking out ESG-friendly companies as employers. A commitment to ESG principles has allowed these companies to attract the best and brightest candidates as well as develop the products critical to the future of commerce.

**Workload Optimization Software:** Whether the workload in question is an IT workload or optimizing workflows from manufacturing processes, utilizing existing infrastructure more efficiently (as described in the Rail section above) can bring about gains in carbon footprint management. Looking at assets from an ESG perspective does not always have to entail utilizing green technology or eliminating emissions, it can also come about from making more efficient use of existing assets. This is where workload optimization software comes in. This type of product can help optimize delivery routes, server utilization, energy consumption, or almost anything else in the production/transportation process.

**Infrastructure as a Service:** Not unlike the rest of the economy, consumers of IT are becoming less inclined to own assets and more inclined to pay a fee for a service, including software, storage, servers, and most other forms of IT processing. This structure plays well with an ESG strategy, as the equipment remains in place as long as the SLAs are being met, rather than being replaced on a fixed schedule. Many IT service providers such as Amazon Web Services and Microsoft Azure will supply the equipment for such services and charge on a monthly basis. Many of the dynamics of these IaaS contracts resemble a lease, in that the service continues whether or not the equipment has been paid for, so it can perform much like holdover rent after the “debt” has been amortized. Financing and leasing companies are working with IT service providers to offer financing for the assets underlying the service contracts. Key to the success of these arrangements having a service provider with a track record of delivering services on a timely and reliable basis. Such contracts generally have SLAs where an unremedied breach can eventually cause a termination of the contract. A provider of financing must structure the obligation, so its interests are covered in the event of such a cancellation. With these protections in place, financing “as-a-Service” offerings can be very lucrative as discussed in the Circular Economy section of this presentation.

**IoT and Artificial Intelligence:** Internet of things (IoT) connectivity has made it possible to remotely monitor assets and processes that previously required a physical presence.<sup>34</sup> The applications for IoT in an ESG environment are almost limitless, whether providing early warning on forest fires, monitoring oil pipelines, reporting on diesel engine emissions, or myriad other applications. Artificial Intelligence takes these data and applies corrective actions based on programming and learning from past events. The proliferation of these technologies requires sensors with internet capabilities and creates immense amounts of data. Computing power, storage, networking equipment, analytical software, remote sensors, as well as physical and electronic security are all necessary to utilize the capabilities these technologies present. As these applications become more ubiquitous, the need for processing capabilities will grow rapidly and present significant financing opportunities for the industry. In 2021, it is estimated that there are more than 10 billion active IoT devices. This number is expected to surpass 25.4 billion by 2030.

**Cybersecurity Software:** Society is becoming increasingly dependent on data and interconnectivity, a fact not lost on hackers, ransomware developers, governments, and others intent of breaching networks for profit or other illegal purposes. As interconnectivity grows and the threats become more



sophisticated, products like cybersecurity and threat detection software become crucial to the governance of any firm. These products are important for any finance industry participant to utilize in its own systems and also represent a client financing opportunity going forward.

**Storage devices:** As demand for data increases, so will the need for the ability to store and access that data. Over the past few years, the technology for storage has changed, moving from primarily spinning disk to all-flash array storage. The benefits of this technology include simplicity, durability, and reduced size factor. The change in technology and the proliferation of data bodes well for increased demand for financing of storage devices.

**Purpose-Built Data Centers:** Historically, company data centers have been located within office space occupied by the company. These data centers are convenient because of their proximity to staff and other resources but are often capped in their ability to utilize power and efficient cooling. This has driven a trend toward purpose-built data centers, offering access to alternative power, efficient cooling, and more secure physical and electronic access to the assets. Cloud providers such as Amazon Web Services and Microsoft Azure and others offer improvements in technology, such as hot-cold aisle cooling, in which cooling is provided to every other aisle and utilizes cold air containment to ensure the cold air goes only where it is needed. Purpose-built data centers are also more energy efficient because when applications are moved to the cloud, they are converted to run across numerous optimized, workload-sharing servers, so each server is operating closer to its capacity. Another innovation being utilized is liquid immersion cooling, where the gear is immersed in liquid, greatly reducing the power required for cooling. Microsoft Azure has committed to using 100% renewable energy by 2025, being water positive, replenishing more water than they consume by 2030, being zero waste by 2030, and net-zero deforestation by 2030. Such commitments are common among large data center operators. Next tier regional providers lacking the financial wherewithal of Microsoft and Amazon could be interesting sources of new business as they build out competitive facilities.

Opportunities include financing migrations to public and private clouds, Overall growth of IT consumption, networking gear, software to optimize IT and non-IT workloads, storage devices also provide financing opportunities. These products are often acquired through a Software as a Service (SaaS) model, which has unique document characteristics that will need to be structured around. Large suppliers such as Microsoft Azure and AWS are acquiring increasing percentages of IT gear and providing compute power as a service and utilizing third-party financing to augment and on-balance sheet strategy. Numerous IT service providers are addressing this market as well, with smaller balance sheets and a greater need for third-party financing. Where the equipment is not on premise, it can present lien perfection issues and lenders must be aware of landlords' rights to equipment located and operated on their premises.

## Healthcare:

By its nature, the Healthcare sector fits well into an ESG financing strategy for industry participants, as the equipment is utilized to benefit society as a whole. It covers a broad spectrum of potential clients and ticket sizes, from Healthcare Systems to Hospitals to Clinics, Veterinarians, home health, and many others. Similarly, ticket sizes can range from four figures or more to seven or more. Many hospital systems have been reporting on ESG topics for years, focusing on services provided to underserved segments of the communities they serve, the diversity of the workforce, and other social concerns.

Healthcare has experienced high levels of consolidation for the past few years, a trend that is expected to continue as the provision of care moves away from hospitals and more toward outpatient and alternative care



settings.<sup>35</sup> According to a study by Deloitte Consulting, at the national level, 2030 inpatient hospital revenue will be 35% lower and demand for hospital beds will be 44% lower than 2020, with specialized care facilities being distributed throughout the communities they serve. This redistribution of care creates opportunity for equipment finance for financing diagnostic equipment, but also lighting and HVAC retrofits, CRA financing, and other ESG-related investments.

Consolidation creates a number of governance issues at the corporate level. Day-one issues include making disparate security, IT, accounting, and other systems, the integration of which is critical to the management of the merged firms. Due to the high degree of Personally Identifiable Information (PII) that healthcare providers maintain, data security, intrusion detection, and integration services are critical investments. In addition, the digitalization of imaging and records retention regulations have taxed the storage capacities of many healthcare providers. Storage devices, cloud storage services, and data migration services are industry opportunities worth considering.

Much like IT manufacturers, healthcare equipment manufacturers have been early adopters of ESG strategies, and for many of the same reasons. As described below, circular economy models are being adopted to prolong the useful life of equipment through refurbishment, utilization of existing remarketing channels, and creation of new markets in underserved communities around the globe. Expanding access to healthcare is a key social aspect to ESG.

### **Energy:**

Renewable energy accounts for just under 12% of energy usage in the U.S. Wind tops the list at 3% followed by hydroelectric power, wood biofuels, and solar, waste, and geothermal (Energy, EIA.gov, 2021). The energy sector globally is responsible for 75% of all carbon emissions (Agency, 2021). Investment in renewable sources of energy and efficiency will continue to be critical around the globe in order to mitigate climate risk.

Utility scale renewable energy is funded typically via project finance involving complex structures including project a sponsor, equity investors, tax equity investors to take advantage of federal tax incentives, and lenders documented in several different agreements between the parties. The overall underwriting of renewable projects relies on the future cash flows of the project which are secured via PPA's or power purchase agreements. PPA's are typically 10–20-year agreements for the purchase of power and associated renewable energy credits from a renewable energy generator and the purchaser which can be a utility or a commercial/industrial corporation. It is not uncommon for developers of large-scale renewable energy projects, especially wind or solar, to lease rather than purchase the real estate for the project. In such cases, long-term, typically 25–30-year leases are put in place with the landowners specifying the monthly lease price including any increases during the term of the lease. There are a number of funds that will purchase such leases from landowners offering them a discounted value of all future lease payments.

Since renewable project finance is considered its own asset class not typically included within the equipment finance market, the focus of this section will be financing mechanisms for renewable energy and energy efficiency solutions at commercial facilities.

As commercial building owners grapple with changing tenant demand and consider adaptive reuse models, they must also consider climate change resiliency and energy efficiency. It is estimated that commercial building account for 40% of all carbon emissions worldwide and 35% of all global REIT properties are exposed to increasing climate hazards while smart building technology becomes mainstream. The realities facing building

owners are clearly multi-dimensional. Making use of available financing tools for property owners is critical.

**Commercial Building Related Energy Solutions:** The commercial real estate market was hit by a tsunami of change because of the pandemic. Commercial buildings emptied in compliance with lockdown mandates. Businesses adapted by implementing technology and adjusting processes to deliver on their mission with a remote workforce. Emerging from the pandemic companies are considering what form work will take in the future. Some companies have made remote work permanent, some mandating full time back to the office while others implement plans for a hybrid approach. One certain result is that less commercial office space will be required in the future.

**Energy Savings / Energy as a Service Offerings EaaS:** There has been growing interest in as-a-service models across the equipment finance space for several years. Such models can lend themselves to a circular economy solution which is described later in this section. EaaS, (Equipment as a service), models grew as a way to capture the value of the energy efficiency gap. The gap is used to describe the phenomenon where energy efficiency technologies exist to reduce power costs, but customers fail to take advantage of savings due to various market or behavioral factors. EaaS models provide the potential to expand the deployment of low carbon technologies.

The EaaS business model can allow customers to take advantage of energy savings without having to make any upfront capital investment. In the electricity sector, EaaS models provide customers with services such as lighting or HVAC. The product usually takes the form of a subscription service whereby the customer contracts for certain electrical or other power for a fee. Essentially such contracts are subscriptions for predetermined required power service levels.

EaaS models arose to use anticipated energy savings to fund necessary equipment upgrades. Energy service companies offer lighting retrofits or other power-related equipment under a performance-based contract. Under such contracts, the energy service company pays for the upgraded equipment and for the electricity to power it. The customer pays for the lighting or other power services. These contracts are typically structured such that payments to the service provider are funded through projected energy savings and require the energy service company to share the performance risk of the upgraded equipment. EaaS contracts typically are 5-15 years in duration and the customer has the option to purchase the underlying power-related equipment at the end of the contract.

Increasingly there are software technology providers who offer energy savings programs directly to power users such as Flywheel or Carbon Lighthouse via software-based solutions that use sensors and data to uncover energy-saving changes. Others, such as Sparkfund work under a vendor type model with the energy services provider to deploy technology to facilitate EaaS offerings. Available EaaS offerings have broadened to address a wide array of power-related elements including:

- Commercial HVAC
- Lighting
- Backup generation
- Water filtration and conservation
- Energy management systems
- Refrigeration

- Electric vehicles and charging stations
- Storage
- Fans

EaaS models are successful in migrating power users to more efficient and resilient power infrastructures while reducing overall energy usage.

**CPACE – Commercial Property Assessed Clean Energy:** CPACE financing is a tool for commercial property owners to finance the implementation of clean energy related improvement in their properties. CPACE benefits commercial property owners by providing a vehicle to make commercial properties more energy efficient and resilient. It allows for low-cost, long-term funding for investment in energy efficiency, renewable energy, and water conservation. Rule and regulations governing CPACE differ by state and affect the ability to offer CPACE financing.

CPACE finance is currently available in 20 states and the District of Columbia<sup>36</sup>. It is popular as a funding mechanism because it allows developers and other building owners to implement comprehensive retrofits with no out-of-pocket costs. CPACE is 100% long-term financing attached to the real estate and repaid through the property tax assessment extending 20 years or more. CPACE is offered by CleanFund, Greenworks Lending (recently acquired by Nuveen), Petros Pace Finance LLC and others and others. CPACE repayment obligations are tied to and are transferred with property ownership. From a risk standpoint, CPACE obligations are junior to the property tax lien and senior to any mortgage or mezzanine debt. One of the selling features of CPACE is that given the long-term nature of the financing, the associated increase in property tax assessment is often equal to or less than the operating cost-benefit.

**Commercial Solar Finance Incentives:** Commercial solar installations can be a very effective manner to generate renewable energy and take advantage of federal tax incentives. Most commercial buildings have the advantage of flat, wide, and often expansive roofs that can support a significant number of solar photovoltaics (PV) panels. Depending on the size of the PV installation a commercial user can offset some or all of their electricity costs. Solar PV equipment financed through debt financing qualifies for the ITC as described below.

The federal investment tax credits for the installation of commercial solar PV systems are in the form of investment tax credits or ITC<sup>37</sup>. The solar ITC is a federal tax credit that can be claimed on federal corporate income taxes for a certain percentage of the cost of the solar PV system that is placed in service during the tax year. To be eligible for the ITC, a solar PV system must have commenced construction prior to 2019. For systems that commenced construction in 2020, the tax credit decreases to 26%, and for those commenting in 2021 or beyond the maximum tax credit is 10%. A solar PV system that is eligible for ITC can also use accelerated depreciation corporate deduction. Systems in service prior to December 31, 2022, can elect to claim 100% bonus depreciation.

To be eligible for the business ITC for solar PV the systems must be used by a business subject to U.S. Federal income taxes, located in the U.S. or U.S. territories. Eligible project expenses included solar PV panes, inverters racking, and sale and use tax on the equipment, installation cost indirect costs, step-up transformers, and circuit breaker, and energy storage devices.

For commercial entities without a large tax liability, there are ways to partner with a tax equity investor with a large tax appetite to make use of the tax benefits. Some of the models used are sale leasebacks where the developer sells the PV systems to a tax equity investor who leases it back to the commercial development. Another method is a partnership flip where the developer and tax equity investor form a partnership and the economic returns flip from the investor to the developer after the tax equity investor makes use of the tax benefits.

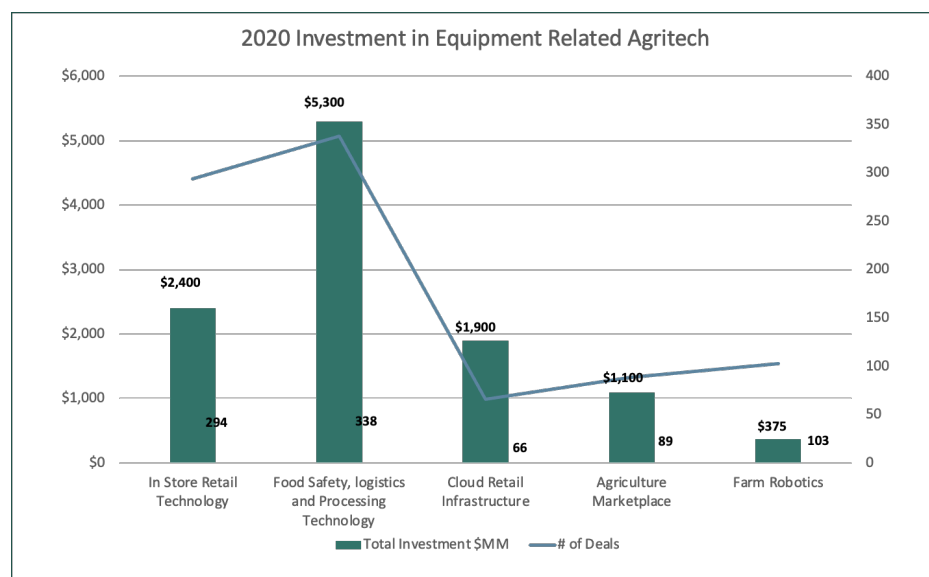
### **Agriculture:**

Demand for more organic products and locally produced food accelerated during the pandemic. A dramatic shift occurred as shopping for food in person and dining in restaurants quickly transitioned to skyrocketing use of take-out food ordering and delivery applications. As consumer tastes and demand change, the agriculture business grapples with the need to increase production and yield while mitigating carbon emissions. Current estimates by the World Economic Forum forecast a population increase from 7.3 billion people today to 9.7 billion in 2050. Today agricultural related carbon emissions account for 25% of all emissions. At the same time, it is estimated that 30% of food grown is wasted, either not harvested for a variety of reasons or unused by consumer purchasers. Further adding to the challenge, water availability is expected to fall short of irrigation demand by 40%<sup>38</sup>.

The challenge is clear – solutions must be found to feed the planet in more productive, carbon neutral, and healthy ways. It is estimated that 87% of the necessary increase in food production will come from yield increases resulting from more intensive and often technology enabled yield improvements, 7% from increased crop intensity, and only 6% from the expansion of farmland.<sup>39</sup> Addressing this critical increase in food demand in a sustainable manner is the challenge for the industry the solutions agrifood tech businesses hope to deliver.

**Agtech and Foodtech:** The terms agtech and foodtech encompasses the application of technology anywhere across the entire food ecosystem from upstream farm processes to downstream distribution preparation and consumption. **Exhibit 9**, from Agfunder, an Ag research, and VC firm, outlines the investment in 2020 in capital equipment related agtech sectors.<sup>40</sup> 2020 was a banner year for investment in ag and food tech with about \$30 billion raised, a nearly 35% increase over 2019. The key trends, largely pandemic driven, behind the increased investment are efficient supply chains and alternative ways of growing, processing, and transporting food to consumers and trends towards protein alternatives. In fact, Impossible Foods, an animal protein alternative company raised a \$500MM round in the middle of the pandemic validating the future for the protein alternatives market. For the first time in seven years upstream investments, are closer to the farm than the consumer surpassed downstream investments. Innovative food start-ups and eGrocery start-ups raised over \$7 billion and Ag biotech investment increased 60% YoY to 1.6 billion.

Agribusiness marketplace deals did very well in 2020, with two notable companies, Indigo and Farmers Business Network (FBN), raising \$360MM and \$250MM respectively. Both Indigo and FBN have entered the carbon trading market described in the following section.

**Exhibit 9: Agtech and Foodtech Application Areas**

Source: The Alta Group, LLC

**Agribusiness Marketplaces and Agriculture Carbon Trading:** Agribusiness marketplaces offer products including crop protection, seed, and livestock products as well as finance products such as land, equipment, crop marketing, and insurance. Some marketplaces such as FBN and Indigo offer the ability for farmers to create value through the implementation of carbon capture practices. Such programs incentivize farmers to implement carbon sequestering techniques such as reduced tilling and planting cover crops. The technology provided by the marketplace allows the farmer to quantify the amount of carbon sequestered and translates that into credits to be made available for sale on the marketplace.

**IoT Farm Management and Robotics:** The enormous challenges faced by the agricultural industry begin with simply protecting current crops from damage caused by climate change to increasing the yield per acre of productive farmland. IoT (Internet of Things) sensor-based technologies hold significant promise across multiple applications to help meet these challenges. The largest agricultural equipment manufacturers, John Deere, CNH, and AGCO are investing in IoT applications to deliver innovations such as autonomous farm vehicle operation and managing machinery maintenance and utilization. Two equipment-based solutions seeing explosive growth are IoT applications in irrigation and soil management, and drone utilization in farming.

- **IoT Soil Management and Irrigation:** IoT sensor technology is deployed in irrigation and soil management rendering significant benefits<sup>41</sup>. By delivering real-time and location specific information about irrigation and nutrient levels, farmers are better able to target precise levels of irrigation, and nutrient application increase crop yields. Images of crops can also be transmitted allowing farmers to more easily and quickly monitor signs of disease or pests. IoT sensors for such agricultural applications are delivered in drones as well as above and below ground sensors. A recent McKinsey study found that broad-based implementation of digital IoT solutions could increase global gross domestic product by \$500 billion and increase industry productivity by 7-9%.<sup>42</sup>



- **Robots:** The application of robotics in farming has a broad set of current and potential applications. Those with the most adoption to date utilize robots to replace human labor in completing repetitive tasks. Dairy management and crop harvesting are among the most common applications. In the harvesting process, robots use multiple camera implementations to first decipher if the plant is ready for harvesting and then to guide the robot blade as it harvests the produce. RMS, (robotic milking systems), are commonly used in dairy farms across the upper Midwest and the Northeast. RMS technology has resulted in increased milk production and improved quality of life for dairy cows.

### Transition to the New Eco-Economy:

While much of the technology described represents a significant opportunity for the future, there will be a transition period during which we move away from current technology and develop/perfect the new, cleaner technology. Opportunities from this natural transition could include:

- Financing the replacement of older equipment with more eco-friendly versions of existing technology.
- Providing capital for public and private infrastructure to facilitate the use of newer technology, such as charging stations, hydrogen plants, and refilling stations.
- Small- and large-scale remediation equipment to address current environmental issues, such as water treatment.
- CO2 capture plants.
- Partnering with entities that invest in carbon-negative projects, effectively providing carbon offsets, and allowing projects to be viewed as carbon-neutral. There are several such firms planting trees, reclaiming rainforest, investing in alternative energy projects, plastic reclamation and recycling projects, methane recapture, and a number of others.
- Investment in technologies that help companies track and analyze the carbon footprint of an initiative, allowing them to reduce or offset it for corporate ESG goals.
- Forklifts long ago adapted to environmental concerns. Since they were often operated indoors, emissions had to be minimized. Electric and Compressed Natural Gas technology can fit within an ESG strategy due to their zero or nominal emissions and carbon footprint.

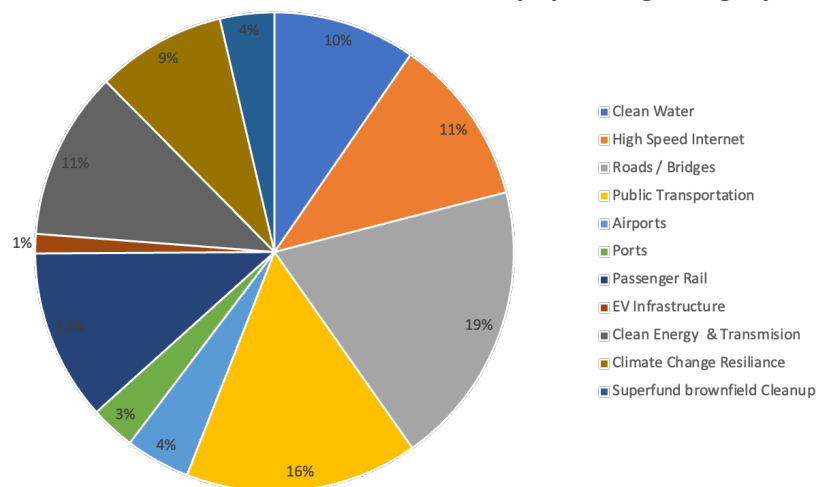
### Infrastructure Bill:

On November 15, 2021, President Biden signed a new \$1.2T infrastructure bill, the Infrastructure and Investment Jobs Act, that will cover a broad swath of infrastructure spending categories including \$500B in upgrades to roads and bridges over the next 5 years. **Exhibit 10** illustrates the percentage of total spending allocated to each spending category.<sup>43</sup>

Of the \$1.2 trillion in funding, \$550 billion is incremental new spending over the next five years, split fairly evenly between the surface transportation network, \$284 billion, and enhanced core infrastructure, \$266 billion.<sup>44</sup> The largest part of the transportation funding is for roads, bridges, and other major projects. The second priority is passenger and freight rail followed by airports, ports and waterways, public transit, and EV infrastructure. More than half of the all-new funding will be directed by the Department of Transportation through state and municipal grants, (both formulaic based on miles of road and population, and competitive project oriented), the Highway Trust Fund, (funded from federal fuel tax and earmarked for road construction and mass transit), loans and other agency programs. The core infrastructure spending is targeted to fund upgrades to the power grid to shore up clean energy transmission, investment in broadband internet access, investment in clean water projects, and superfund site cleanup.

## Exhibit 10: Infrastructure Bill Allocation by Spending Category

**\$1.2T Infrastructure Bill Allocation By Spending Category**



Source: The Alta Group, LLC

For the equipment leasing industry, the infrastructure bill investment will lead to increased demand for construction and road building equipment, commercial electric vehicles, EV batteries and charging infrastructure, and broadband networking equipment. Some of this equipment will be sourced directly by state and local governments while other equipment will be sourced by contractors to state and local governments as well as other recipients of competitive project funding grants.

## Circular Model Support for ESG Initiatives

### Linear versus Circular Economic Models:<sup>45</sup>

The industrial revolution took advantage of what appeared to be an unlimited supply of natural resources for decades. It cultivated the linear economy where products were manufactured, used, and then discarded. The upside of this model was economic and personal prosperity. The downside was the escalation in the use of natural resources, more rapid obsolescence, and higher proportions of non-recyclable waste. Over the past 3 decades, the consumption of raw materials has grown to over 100 billion tons annually. Only a third of these materials remain in use beyond a year while 15% represent emissions of climate heating gases and roughly 30% end up in refuse. Less than 10% is recycled.<sup>46</sup>

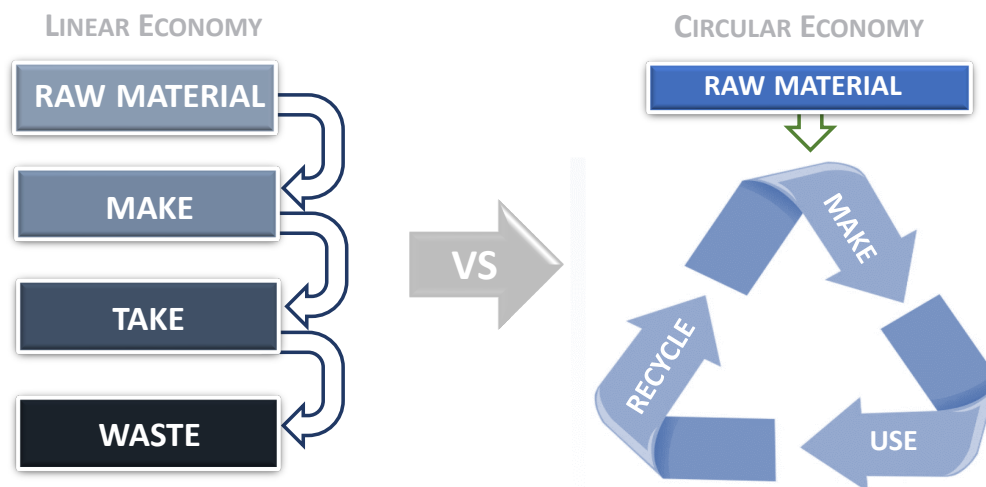
Because of the high proportion of waste being generated, the industry is being challenged to transform how they design and manufacture products for end-user consumption. Many manufacturers have already switched from selling or leasing individual equipment assets under a linear model that focuses on a 'MAKE-TAKE-WASTE' economy to one that focuses on a circular economic model where the recycling of assets is more easily controlled through various contractual arrangements with end-users. These contracts are rich in content and can include equipment, periodic maintenance, help desk, software applications, delivery, installation, and recycling that are provided as comprehensive solutions under a services arrangement. These services can

either be managed internally by the manufacturers/vendors or outsourced to third parties. The circular model emphasizes a more responsible use of raw materials, more efficient utilization of assets, and more aggressive recycling or shared use of a single asset.

A comparison of the two models is graphically represented in **Exhibit 11** below. The Linear Economic model emphasizes a single product lifecycle where the goal of making and selling the maximum number of individually owned assets is contributing to substantial waste. The Circular Economic model demonstrates the opportunity to reduce the use of raw materials by leveraging a non-ownership model that focuses on recycling and re-use of assets to support multiple users over an elongated product lifecycle.

### Exhibit 11: Linear vs. Circular Models

#### LINEAR VS. CIRCULAR MODELS IMPACT THE GENERATION OF WASTE



Source: The Alta Group, LLC

From an end-user perspective, in addition to the preservation of natural resources, there are substantial commercial benefits that can be harvested when asset ownership is de-emphasized under more agile usage models.

- When products, components, and materials are re-circulated, there can be a corresponding decline in requirements for new raw materials used in new production. This contributes to a reduction in manufacturing costs that can potentially be passed on to end-users in the form of price reductions.
- A more reliable supply of reusable products also makes it easier to expand markets to some end users for technologies that may have been unaffordable under less friendly new asset ownership models.
- The end-user experience is generally more reliable when assets are maintained under usage models that include services for maintenance and output management.

From a manufacturer's perspective, there are equally compelling reasons to examine usage-based options.

- It can accelerate technology adoption for existing customers while also opening up markets for secondary users.

- There are economic benefits in optimizing resource costs through more effective recycling of returns.
- In addition to hardware, service streams enhance overall profitability.
- Customer loyalty improves with turnkey solutions that deliver high-quality performance.

Moving towards usage models for a manufacturer can potentially require product re-design in order to effectively shift from single user ownership to assets that are better suited for a shared economic model, or to assets that can adapt to performing multiple tasks. This redesign intends to integrate hardware, software, and services into a high-performing digital nervous system.

A common requirement for design integration is the ability to access usage and key performance data of the underlying hardware. The Internet of Things (IoT) connects assets to the internet where data is created, collected, and transmitted for analysis. It provides details on the location of the asset, how it is being used and whether or not there is a maintenance requirement. With the addition of remote access to sophisticated analytical software, predictive analytics can be used to schedule preventative maintenance. This will replace traditional 'break-fix' models that are more costly and disruptive for end users. The intersection between hardware, software, services, and IoT will ultimately facilitate the transition to circular or sharing models by moving from the simplest process of collecting usage data for invoicing to examining the data in order to mitigate future risks and ultimately to harvesting data for new revenue and service streams.

### **Circular Model Risk Management:<sup>47</sup>**

Although fair market value leases are a step in the right direction towards improving end of life assets, these leases are still generally positioned by the funder as single-user models with preferred residual recovery coming in the form of lease extensions at the end of the initial contract period. In many cases, the asset still follows the 'Make, Take, Waste' linear model at the end of its useful life with the original lessee. More robust circular models are geared towards providing higher levels of utilization, potentially with multiple users, and higher levels of reliability that can prolong the life of the underlying asset. These models generally involve service contracts that provide comprehensive and integrated systems of hardware, software, and services for a stated contract term. Unlike fair market value contracts, they generally do not provide options for the end-user to purchase hardware at the end of the initial contract period. This would defeat the objective of the service provider to sustain a long-term service relationship with the end-user.

The parties to these service contracts always include a primary service provider, who is often the vendor, and the end-user. Although service providers can opt to monetize committed contract payments to third-party funders through assignment programs, unlike traditional lease contracts, the relationship of the funder to the end-user is generally silent. Similar to leasing, an assignment of contract proceeds converts a portion of the contract to cash for the service provider and can also transition some of the contract risks to the funder.

Because of the more extensive content included in these contracts versus more traditional leases, there are incremental risks that need to be examined to ensure that critical risk areas stay within defined tolerance levels for all parties to the contract.

The types of risks that need to be adequately addressed and mitigated include credit, residual, performance, usage, accounting, and data security. Each of these is explored in more detail as follows:

**Credit Risk:** Although credit risk is familiar territory for equipment lessors, scalable and comprehensive underwriting processes are not generally a core competency for most service providers. The most effective

method for the service provider to distribute and mitigate this risk is to assign committed payments to a third party, who will underwrite the contract based on traditional underwriting methods.

**Residual Risk:** Even if the service provider elects to assign the committed payment stream to a third-party funder, there are legitimate reasons to retain the residual asset. Recycling assets into cost-effective service contracts to secondary markets provides an opportunity to expand an addressable market while optimizing asset utilization. It also increases the service provider's participation in higher levels of service stream revenues and profits. However, the decision to retain control of these assets has consequences to the service provider or manufacturer's balance sheet that also need to be factored into the equation.

**Performance Risk:** One of the most crucial aspects of any service contract is the ability to sustain committed levels of performance. This can be especially challenging when service providers or manufacturers rely on subcontracted service support. Even with hell and high-water clauses incorporated into the service contract for embedded hardware, some service contracts can be so highly integrated with software and services that a service default can render the hardware irrelevant. Because of this, the assignment of these service contracts to third parties is often conditional on the service provider or manufacturer providing adequate levels of recourse to absorb any default risks.

**Usage Risk:** Circular economic models generally include varying degrees of usage commitments and that can range from minimum usage commitments or termination fees at the lowest level of flexibility to cancellation for convenience at the highest level. If substantial risk exists, it will impact the service provider or manufacturer's ability to assign the contract to third-party funders and can also require rental vs. sale revenue treatment. Conditions that can mitigate this risk might include:

- 'No competitive replacement' contract clauses
- End-user essential use of assets
- Reliable performance history to demonstrate immaterial levels of service default

**Data Security Risk:** Service contracts often require assets to have embedded internet connectivity (IoT) to create, collect, monitor, and analyze streamed data. Assets that are connected in this way are considered 'smart-assets'. In some cases, data collected from end users can provide service providers with incremental sources of revenue. However, harvesting data in this fashion would be subject to strict compliance with regulatory requirements around privacy and data security.

**Accounting Risk:** As risks accumulate in these transactions for service providers or manufacturers, the ability to book sale revenue, keep assets off the balance, or monetize the transaction with a third party are at higher risk. All these risks should be given careful consideration as offerings are constructed for end users.

## Circular Model Readiness Requirements<sup>48</sup>

Given the significance of circular models to an overall ESG strategy, and its importance as a competitive advantage for equipment finance companies, the ability to execute such a strategy requires careful consideration. A frequent misstep in executing service or consumption models is ignoring critical development activities when trying to move too quickly from market awareness to the launch of an offering. The exclusion of any critical steps in the process can open the door to future issues related to asset monetization, sale revenue recognition, billing, asset management, and performance risks to name a few.



In addition to examining the risk categories that were outlined in the previous section, the following considerations and process steps represent a blueprint of activities that should be addressed as part of a transition plan from traditional sales, leasing, or services models to integrated usage models. Individual companies can modify the priority and sequencing of activities to suit their internal capabilities. However, it's important that consideration be given to each category to make sure that fundamental requirements are not accidentally overlooked.

**Market Analysis:** The first step in the development of any offering should be to ensure that feedback is solicited with regards to the relevance of the offering from the perspective of the end-user, selling resources, and service executives. In the absence of doing this, the value proposition can be underdeveloped, risks can be underestimated, and the sales teams can experience disconnected communications with regards to priorities. Key activities to address during this first step include:

- Defining the addressable market
- Identifying the content of the offering and the associated partners and profit streams
- Soliciting feedback with regards to the potential value proposition
- Establishing a refined target market focus to align with company objectives

**Funding Sources:** There are generally two sources of funding for transactions of this nature:

**Internal Funding:** Manufacturers and service providers who currently self-fund leasing transactions are much better prepared to address the incremental requirements that exist with these circular/usage models. In the absence of a current leasing process, manufacturers and service providers need to define treasury guidelines in addition to creating new processes that integrate lease accounting, underwriting, contract administration, usage billing, and other administrative requirements into core platforms and applications.

**Third-Party Funding:** The ability of the manufacturer or service provider to monetize portions of the contract will be impacted by the contract's underlying terms and conditions. If there are existing vendor leasing programs, these programs can often be leveraged to include the assignment of committed receivables to the same funders. In some cases, where existing funders may not have the sophisticated leasing platforms to accommodate usage models, or a vendor leasing program doesn't exist, the manufacturer or service provider would need to identify qualified partners who can address the full scope of support required.

**Alliance Strategies:** Services contracts with end users can often include subcontracted relationships for hardware, services, software, and other contract content support. This can add to the performance assurance complexity in managing these contracts. There can also be collaborative 'go to market' strategies to tap into the identified addressable market. In order to mitigate issues and facilitate joint marketing objectives, relationships with suppliers and subcontractors should be carefully managed by considering some of the following as part of the relationship management process:

- Establish focal points between the parties
- Establish customer engagement strategies
- Define service roles and responsibilities with tight service level agreements and penalties for non-performance
- Develop cross training for Go-To-Market sales initiatives and collaboration
- Align incentive programs and performance objectives

**Legal Readiness:** The nature of circular models involves weaving multiple components and parties into end-user services agreements, assignment agreements, and supplier contracts to ensure that each party's commitments are adequately represented to the end-user and that one party's interests are not inadvertently subordinated to another. In addition to ensuring that all templates are sufficiently vetted in the process, there is also a requirement to ensure that any end-user contract changes go through similar scrutiny if required.

**Business Transformation:** Requirements to support circular models are influenced by budget, risk appetite, resource expertise, administration process capability, and funding options. This requires a transformation exercise that, at a minimum, includes the following:

- Evaluate proposed offering structures priority criteria and established boundary conditions
- Identify specific organizational support requirements
- Incorporate IT investment requirements for administrative capabilities into the planning process
- Provide for quality assurance oversight to address contract complexities and resolve problems efficiently

**Asset Management:** Circular models, especially those that involve shared or short-term usage, require effective asset management in order to monitor the utilization and condition of the underlying equipment. Since usage can impact some assets more detrimentally than others, having this information at the asset level can influence residual assessment methodologies and overall residual optimization strategies.

**Pricing:** Managing circular model pricing requires examining individual and overall content profitability requirements, identified risk variables, and contract terms and conditions. Asset value recovery can play heavily into pricing decisions on more flexible usage contracts because of the high risk of underutilization. However, end-users are often willing to pay for convenience (e.g., Hertz daily rental rates). In other cases, the opportunity to upsell higher margin services and software can provide price subsidization for other elements of the contract content while still achieving stronger levels of overall revenue and profit. Ultimately, competitive practices and offerings will be the equalizer between internal margin requirements and the end user's perception of value.

**Accounting for Service Providers:** Aligning the offering with financial requirements can be a challenge. Multiple variables influence the balance sheet and bottom-line profit. Some of the more common variables include the following:

- FASB/IFRS accounting guidelines based on the overall structure of the transaction
- Internal vs. third party financing influences on risk positions, cash levels, profitability, and balance sheet objectives
- Recourse or overall transactional risk influences on sale revenue recognition
- Price mitigation

**Value Proposition and Go-To-Market:** In order to shift from ownership to circular financial models, end-users require a demonstration of economic or other significant value. Sales resources may require similar motivations in the form of toolkits, incentive programs, and other sales engagement techniques to encourage this kind of transition. All of this requires strong internal and external communication plans to achieve the levels of scalability that continue to support program investments.

Financial innovators recognize the opportunity of transitioning to circular models and are preparing for and investing in this change.

*“By giving our customers greater access to our technologies and services, there are broader systemic savings. For example, we have a strong company commitment to safer care and better outcomes across our portfolio. Those outcomes have implications for the broader healthcare system. Our Sustainability Solution’s offerings save our customers millions through reprocessing and remanufacturing services, and our Ambulatory Service Center (ASC) model allows for a more efficient model of delivery.” (James Cress, Vice President and General Manager, Stryker’s Flex Financial Business)*

The benefits of circular models to the equipment leasing industry far outweigh the challenges. Sharing, subscription, and consumption programs demonstrate the positive influence that the industry has in supporting asset optimization and sustainability requirements. New financing markets will open up for end-users who have previously been denied access to costly technology, and data will be transformed into knowledge with more effective sharing of information that is gathered under servitization models.

## Asset Management

### Increasing Importance of Asset Management:

As the industry shifts toward financing environmentally friendly assets, the asset management function moves from being often tactical to a more strategic level due to risks and opportunities presented by the assets being financed. While most companies will not see a drastic shift immediately to the makeup of their portfolios, changes over time are inevitable. Existing portfolios could see a number of performance changes, such as increased end-of-lease returns due to shifting product demand, changes in holdover rent as lessees develop equipment strategies, changing secondary markets due to regulatory and consumer demand shifts, and any number of other possible issues. This uncertainty demands that asset management have a seat at the table as strategy is developed, especially for companies focusing on residual-based products. Involvement of the asset management team in the originations/approval process provides the opportunity to address and structure around issues rather than being reactive at lease terminations when options are likely to be fewer.

To the extent asset management expertise does not reside in house, there are a number of third-party options for appraisal, strategy assessment, return inspection, and pre-closing inspection. Especially with newer vendors/manufacturers, it can be very important to inspect the condition and verify location for assets where feasible.

Asset management is also critical in establishing and vetting the alliances necessary to implement a circular equipment model. Vendor remarketing and refurbishment capabilities cannot be taken as a given, as circular models have the risk of competing with the new product channel for sales. It is best to have an alternative under consideration upfront in the event of changes in the relationships or product demand.

As with most change, unforeseen risks and opportunities will arise over time. Markets for old technology can emerge or disappear, technological changes can render whole asset classes obsolete. Periodic asset portfolio reviews can assist in monitoring trends and identify risks while there is still an opportunity to react.

### **OEM Influences:**

For those industry participants focused on vendor originations, strategic alignment with the equipment vendor is crucial. If the vendor's focus is new product sales regardless of the interests of financing partners, the finance company can find itself in competition with the vendor at lease expiration. If a vendor is committed to a secondary market for its products and has a program in place for refurbishment and/or redeployment, the goals of all involved are made more achievable. It is very difficult for a manufacturer to formally commit to refurbishing the equipment for a third party and not affect revenue recognition. It is therefore advisable to align with a vendor with similar aftermarket goals to protect residual investments.

As products are designed for less waste and circular models, opportunities for down-streaming used equipment can become more desirable. For a user not needing the latest technology, a three-year-old off-lease piece of equipment can be perfectly capable for their application. In addition, non-current generation IT equipment can be utilized in applications where uptime and response time aren't critical, such as business continuity/disaster recovery (BC/DR) sites.

**Recycling Capabilities:** Where resale of equipment at end-of-term isn't a viable solution, having a ready capability to recycle the product can help reduce waste otherwise created by obsolete products. Alignment with the equipment vendor or establishment of relationships up-front can greatly reduce the effort and expense of dealing with such issues at lease conclusion.

**Remarketing Assistance:** A number of equipment vendors, especially publicly-traded multi-national companies, have committed to ESG principles through public announcements and creating periodic reporting on their progress toward established goals. Much can be learned about commitment and strategy from CSRs. As an asset management tool, the CSR can be used to ensure strategic alignment, as revenue recognition rules often make it impossible for a vendor to formalize remarketing assistance.

## Industry Interviews and Best Practices

Nine equipment finance companies agreed to participate in an interview related to ESG strategies and practices. Participants selected included medium and large banks, independents, and manufacturers.

Three broad topics were selected for discussion that included the following:

- ESG strategy overview and disclosure process
- Internal focus on accountability/governance, underwriting, and asset management
- External focus on customers, suppliers, and industry segments
- The results of these conversations are represented as follows.

### ESG Strategy Overview and Disclosure Process

Interview participants were asked to share perspectives on their ESG strategies and disclosure reporting. Companies with a strong focus on ESG strategies represented those with more well-defined initiatives that are cascaded throughout the company (e.g., corporate sustainability reporting, employee focus on specific ESG initiatives). Disclosure reporting was defined as having a separate Corporate Social Responsibility report, 10K references, or reporting based on other frameworks (e.g., UN SDGs, SASB, EU Commission). Feedback on the strength of ESG strategies and disclosure reporting from the 9 companies interviewed is represented in **Exhibit 12** below. There were no companies interviewed without a minimum level of attention to critical ESG issues and topics, such as climate change or Diversity, Equity, and Inclusion (DEI).

**Exhibit 12: Linear vs. Circular Models**



Source: The Alta Group, LLC



7 out of 9 (78%) of the companies interviewed have a strong ESG focus but may have different levels of formalized reporting. Generally, the formality of the reporting is directed by the parent organization and/or is influenced by specific regulatory requirements. Regardless of the level of disclosure, if there is a strong focus on ESG or sustainability, the feedback from participants is that this focus has been integrally woven into the fabric of the company and has evolved to a point where it is considered a guiding principle for most activities. The belief is that a conscious culture around ESG and sustainability goals fosters client centricity, employee DEI, internal efficiencies, business development, and generous participation in community programs.

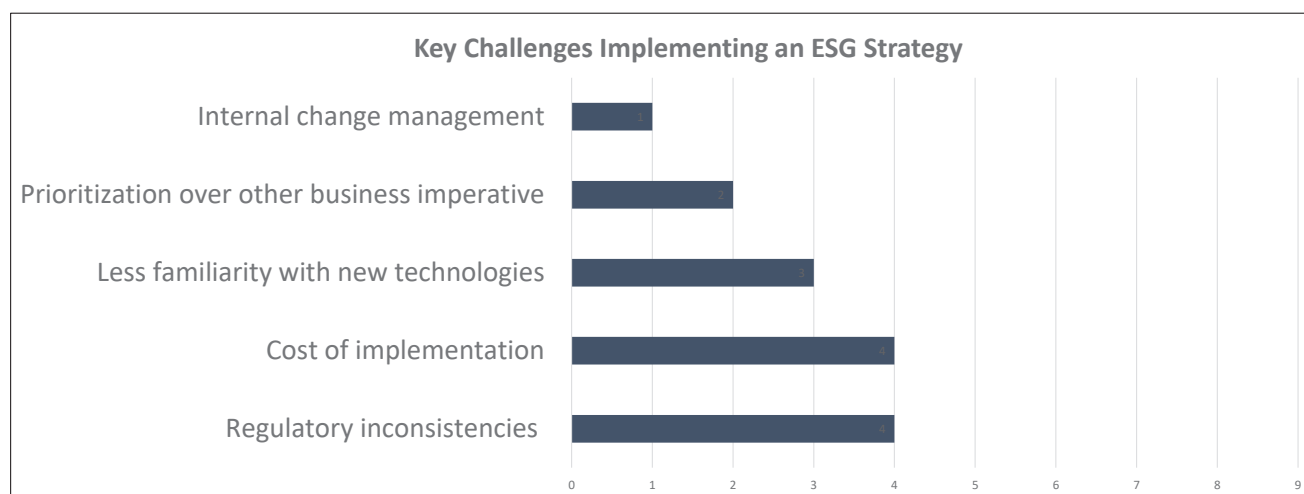
Banks and independents, with a strong ESG strategy and focus, may have had an initial focus on social and governance issues related to ESG. However, they are quick to acknowledge that this is changing. They have recently turned more attention to expanding portfolios that foster emissions-free or other environmentally friendly technologies. They are also developing programs and offerings that enhance value add to vendor partners, examine options for trading carbon credits, increase utilization of assets and improve responsible residual management.

*“CSI Leasing has been providing innovative, sustainable IT solutions for decades – long before helping the environment became fashionable. In order to enhance the circular economy, we invested a tremendous amount in our wholly owned remarketing and recycling facilities. This has allowed us to keep useful equipment in hands, and obsolete equipment out of landfills.” (Arnaldo Rodriguez, President CSI Leasing)*

All of the captives who participated in these interviews had parent companies who have pre-existing CSR programs, policies, and reporting. These CSR practices are considered drivers of company revenue, brand reputation, and investment value. The manufacturing parent may have a heightened level of accountability to become responsible stewards for the environment through improved product design, manufacturing, and supply chain processes. However, they are also driven to formalize their management of social and governance programs. Many of these programs then cascade to the captive for participation. Companies that have well-established voluntary CSR disclosure reporting are aware that they are in a much better position to address near-term mandatory ESG disclosure requirements.

22% of the interview participants had less focus on ESG strategies and no known formalized reporting. Although they may have a culture to ‘do the right thing’, there are no intentional investments or defined targets that have been earmarked as part of an ESG strategy. The perspective on disclosure is that unless initiatives can be measured and are material, voluntary disclosure may not be meaningful. While there is an acknowledgment that voluntary disclosure can potentially leverage positive messages into new business, employee, and partner opportunities, there was a contrary perspective that until reporting is more standardized, self-promotion by some companies could shame others into irresponsible or exaggerated disclosure.

Interview participants identified 5 challenges that were prominent in the implementation of their ESG strategy. These are reflected on the next page in **Exhibit 13**.

**Exhibit 13: Key Challenges Implementing an ESG Strategy**

Source: The Alta Group, LLC

Regulatory inconsistency was one of the two most often cited challenges by at least 4 interview participants. This is being driven by requirements from different geographies and standards setters (e.g., Value Reporting Foundation, International Accounting Standards Board, Global Reporting Initiative, SEC, etc.). It will continue to plague ESG strategy implementations until regulations, standards, materiality, and metrics are more defined.

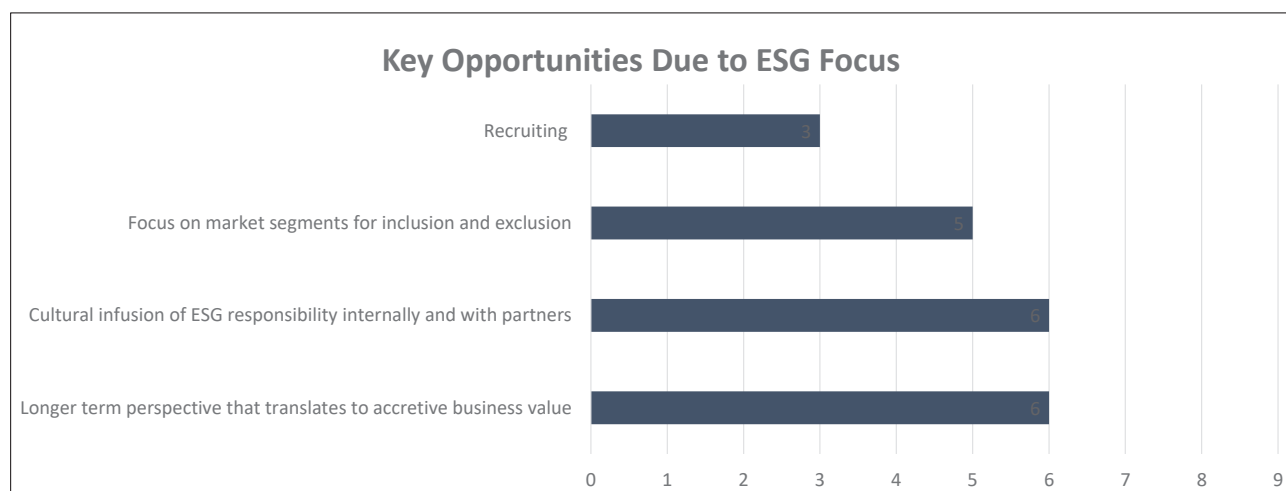
Cost of implementation was considered an equally challenging issue. As more disclosure is mandated, this will translate into increasing levels of investments necessary to implement initiatives, as well as the underlying reporting to track and manage performance and progress. For those companies who have more actively managed ESG or CSR initiatives for a longer period of time, they are already able to correlate long-term tangible business benefits that come from investments in brand identification for sustainability. However, they also recognize that new regulations will require new investments that will not deliver immediate tangible benefits. The challenge is being able to translate more of the intangible benefits into measurable ones.

The lack of familiarity with new technologies was mentioned as having ramifications in evaluating and managing portfolio risk. New technologies, such as electric vehicles with rechargeable batteries, are not yet sufficiently mature to provide a high level of comfort in portfolio or residual stability. There is an added complication as new technology is also being designed and manufactured to support a 'circular' versus 'linear' model. This requires building new processes and relationships to deal with enhanced vendor remanufacturing support or secondary market alternatives.

The challenge of prioritizing ESG implementation against other business imperatives requires transparency as to how decisions are being made and how these decisions align with corporate strategy. Ultimately, decisions have to demonstrate success in the form of accretive business value. Employee communication is critical to building trust, managing change, and assigning accountability against measurable objectives.

In addition to challenges, participants interviewed pointed out even more similarities in opportunities that emerge with an ESG focus. **Exhibit 14** highlights the four areas most referenced.

**Exhibit 14: Key Opportunities Due to ESG Focus**



Source: The Alta Group, LLC

Several participants have been focused on ESG or CSR for years, if not decades. Because of this, they believe there is sufficient history to demonstrate that this focus has resulted in longer-term accretive business value. Although short-term investments may be painful to the bottom line, the opportunities that emerge from ‘doing the right thing’ can be considerable. In multiple conversations, one of the most important benefits has come in the form of vendor program selection. Manufacturers are beginning to examine funding partners more critically based on their ability to trust partners to have similar sustainability objectives. ESG or CSR initiatives provided funders with more demonstrable evidence of differentiation and was deemed to be a strong competitive advantage in growing business volumes.

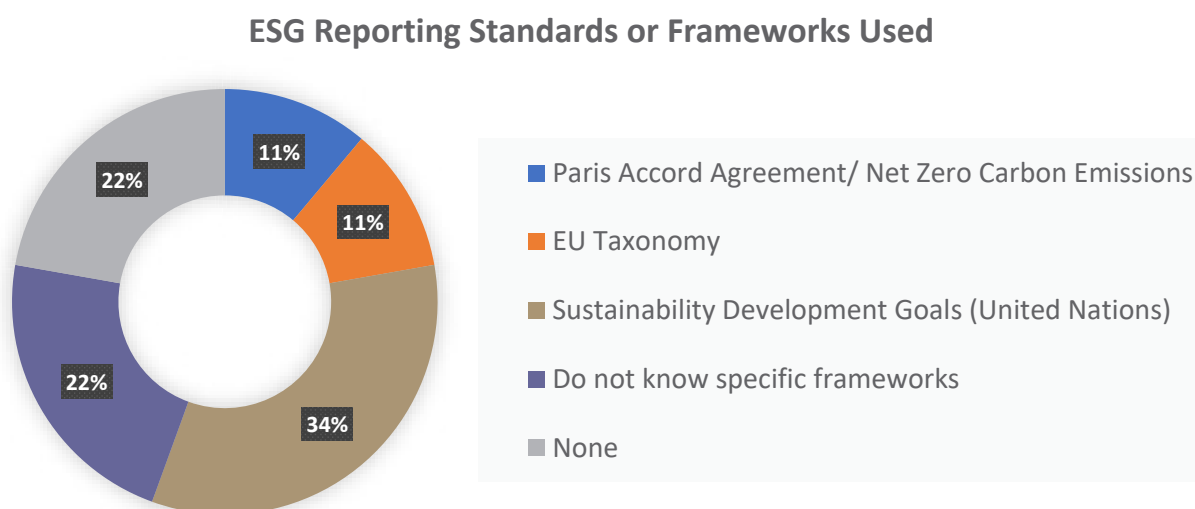
Another highly ranked opportunity comes from infusing an internal corporate culture of ESG responsibility that also extends to partnerships. Funders who have a strong ESG focus are proud of their social programs, DEI initiatives, energy conservation, work from home options, and many other employee-driven initiatives. All of these activities contribute to a healthier, happier work environment. Because manufacturers are challenged to demonstrate supply chain rigor in sourcing raw materials, parts, and services from partners who can demonstrate a sustainability focus, Captives are also encouraged to carefully examine their partnerships with syndicators and downstream remarketers to ensure that this responsibility cascades throughout the financing and leasing process.

New market segments and industries are becoming more attractive to many funders. Sustainability initiatives have opened up new opportunities to examine alternative energy technologies, emerging geographies, and new product offerings to ensure that sustainable product solutions are available to a broader spectrum of end-users. It has also contributed to a perspective that some industries need to be exited or de-emphasized to enhance portfolio sustainability percentages.

More successful recruiting was called out by 3 of the participants as a very important opportunity. Millennials are eager to work for companies that have more progressive reputations around issues that are particularly important to them.

An important emerging requirement for ESG will be mandatory versus voluntary reporting. While some of the companies interviewed are further ahead than others with regards to reporting, there is no standardization. **Exhibit 15** shows the variety of standards and frameworks used by the interviewees. In some cases, the factors being managed by a company represent an extensive adoption of the framework or standards while other companies only select a single element of focus (e.g., diversity, climate).

**Exhibit 15: ESG Reporting Standards or Frameworks Used**



Source: The Alta Group, LLC

4 out of 9 (44%) participants interviewed admitted that they do not have any form of reporting or are not aware of any specific framework or set of standards being used.

3 out of 9 (34%) participants focus on the United Nations Sustainability Development Goals (SDG). SDGs are considered to be the launchpad towards more measurable taxonomies and permit a wide range of voluntary disclosure across 17 different ESG-related factors. In most cases, SDGs create the framework for published CSR reports.

Two participants utilize either the Paris Accord Agreement (PAA) with an objective to get to carbon reduction (net-zero emissions) or the EU Taxonomy, which also focused on environmental factors related to climate, resources, pollution, and biodiversity. In both cases, environmental focus becomes a bridge into broader ESG issues for the future. The complexity in adopting other broader taxonomies was noted as part of the challenge.

Lastly, when asked how industry organizations such as the Equipment Leasing and Finance Association can better support evolving ESG initiatives, there were several universally supported responses including:

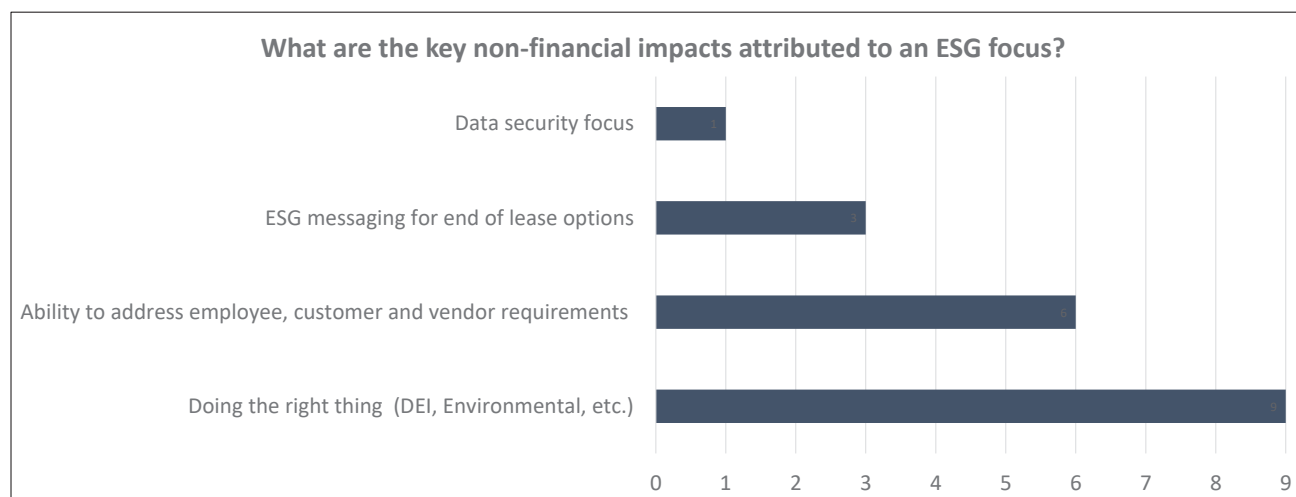
- Providing periodic updates on regulatory, tax, political oversight, and advocacy
- General education and best practices (e.g., diversity practices)
- Thought leadership on market requirements (e.g., circular models and other initiatives)

## Internal Focus and Implications

### Non-Financial Impacts:

We asked our respondents what they identified as the key non-financial benefits they have experienced from their ESG efforts. **Exhibit 16** represents their responses. All of the respondents indicated that “doing the right thing” was a benefit in itself, reflected in DEI initiatives, helping the economy move to a more sustainable future and generally being part of a solution rather than part of a problem. Second on the list was the ability to harmonize with key stakeholders’ requirements. Employees’ desires to work for a company aligned with their beliefs is becoming a larger factor in their willingness to stay with an employer long-term. Also, as vendors and clients adopt their own ESG initiatives, they are increasingly looking for partners with similar commitments and results. Alignment of objectives allows for improved “stickiness” and a more defensible market position. One-third of respondents saw a benefit in end-of-lease messaging, as having more eco-friendly options positions the company for better messaging and differentiation in a crowded leasing marketplace. Only one respondent mentioned improved focus on data security as a benefit, but with the mounting threats on data and Personally Identifiable Information (PII) being mounted globally, improved governance in this area can only benefit the industry as a whole.

**Exhibit 16: Key Non-Financial Impact Attributed to an ESG Focus**



Source: The Alta Group, LLC

### Accountability:

One of the key success factors for an ESG strategy is commitment from the board of directors. Of our nine respondents, all but one reported ESG directives being driven at the board level. Most respondents indicated that presently the directives tend to be more goal-oriented but are evolving to specific targets as the strategies mature. These directives took a number of different forms, such as diversity and inclusion initiatives, volunteerism, and “green” asset financing goals. The boards of these companies have underscored their



commitment to ESG principles by assigning responsibility for ESG efforts to a key officer or team within the organization. Our foreign-owned and captive respondents all reported a strong culture within the organization to focus on these principles.

While not universally true, it was common among respondents to have a key employee (e.g., Chief Diversity Officer, Director of Green Energy, etc.), a team (e.g., Women in Leadership, Employee Network Group), or a department (HR, e.g.) to manage and report on ESG initiatives. What was clear from the responses is that simply stating that a company has an ESG strategy is meaningless to investors, partners and employees. What drives results is for the initiative to become a part of the culture that permeates the entity. For an ESG, or any, strategy shift to be embraced by key stakeholders, companies must:

- Walk the talk. Simply stating an ESG strategy does not create an impact. Demonstrating that commitment and communicating results, good or bad, allows stakeholders to form an attachment to the strategy.
- Measure performance and tie individual and departmental goals to results.
- Allow employees to take part in implementation and have a voice in direction.

Several respondents reported having periodic focus groups and team discussions around ESG. While compensation is not directly tied to results, several respondents indicated that ESG-related goals were part of management goals, which were cascaded throughout their departments, consistent with announcements from a number of public entities. Over half of respondents expected compensation to become less subjective and more directly tied to ESG performance as their strategies matured.

All of our respondents indicated that they have industries they avoid, although many of these policies predate any ESG policies. Some of the common excluded industries are:

- Fossil Fuels
- Cannabis
- Tobacco
- Strip mining
- Pornography

In general, the equipment finance industry has very limited exposure to these industries regardless of a commitment to ESG.

All of our respondents reported targeting or planning to target certain industries or business types as part of their ESG strategy. These included:

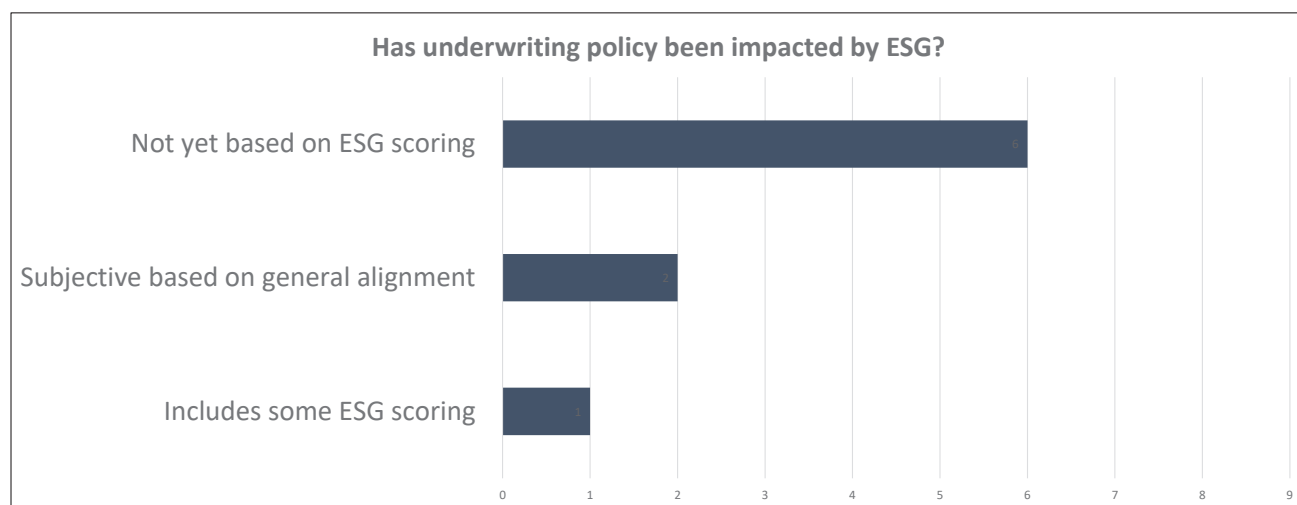
- Electric vehicles and related infrastructure
- Sustainable energy (solar, wind, hydrogen extraction, etc.) and related transitional projects
- Essential use healthcare
- Water reclamation
- Sustainable and humane agriculture
- Disadvantaged Business Enterprises or DBEs (businesses owned by minorities, veterans, females, LGBTQ, or other economically disadvantaged parties)

## Underwriting:

All of our participants seeking to add ESG assets reported moving into markets adjacent to asset classes they were already targeting, thus leveraging existing experience and expertise in those markets. For instance, those financing trucks were moving to finance electric delivery vehicles. As a result, most of our respondents indicated that they had not changed their underwriting standards to accommodate a shift toward more eco-friendly assets (see **Exhibit 17** below). The ESG transactions are selected using traditional underwriting criteria along with their fit within strategy. All participants expected that as the market evolves, ESG criteria will be included in scoring models and RACs.

Key to establishing a credit approach to these transactions is to involve the credit department early in the process, giving them a voice in the strategy rather than forcing new types of transactions into an infrastructure ill-equipped to handle them. Those respondents currently financing emerging technology rely on traditional credit analysis combined with creating portfolio concentration limits on newer equipment types and are considering third-party ESG rating tools as part of their processes for the future.

**Exhibit 17: Impact on Underwriting Policy Due to ESG**



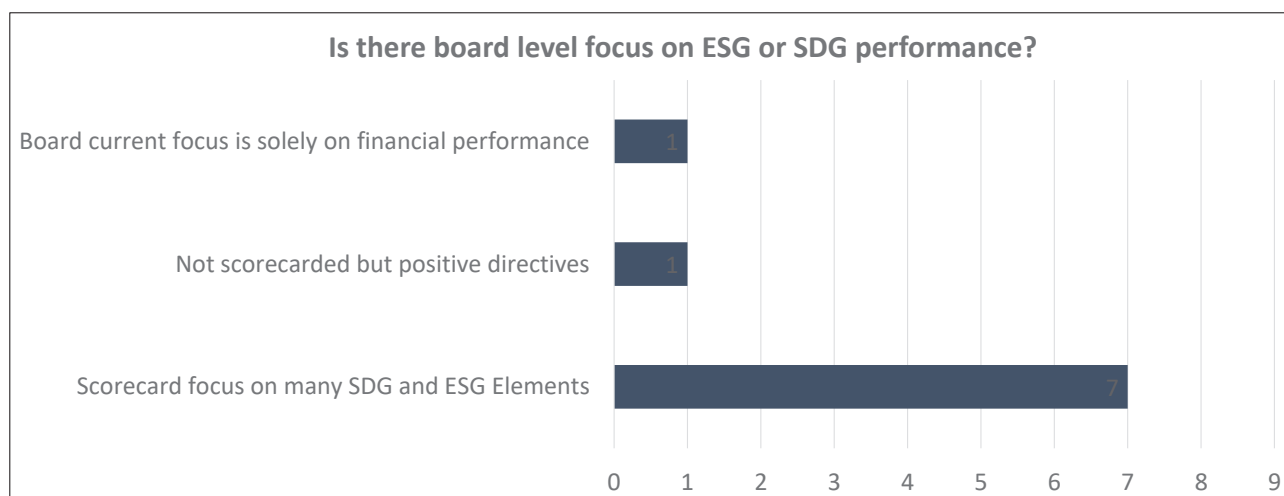
Source: The Alta Group, LLC

## Governance:

ESG has become an increasingly relevant focus at the board level across industry types. In fact, the NACD, (National Association of Corporate Directors), notes that ESG performance is critical for investment decisions, value creation, value preservation, and, ultimately, the future of the corporation itself<sup>49</sup>. The spotlight shown on issues of social justice and DEI during the pandemic has only increased the demand for oversight of ESG at the board level and throughout corporate management. This section will review findings from the interviews regarding significant ESG governance factors such as board-level focus and senior management targets for ESG, DEI efforts, community social engagement, and cybersecurity.

**Board Level ESG Focus – Senior Management Targets:** As **Exhibit 18** illustrates below, a significant majority of companies indicated that there was a board-level focus on ESG, most often measured based on the impact on the UN SDG's. Some spoke of the ESG management focus in terms of positive directives or as a subjective focus area that were nevertheless viewed as important ESG elements. A focus at the board level solely on financial performance was rare.

**Exhibit 18: Board Level Focus on ESG or SDG**



Source: The Alta Group, LLC

International banks stood out as having the most advanced board-level governance of ESG followed by captives. They discussed the boards' responsibility not only for creating the ESG framework but also for reviewing associated risk measurement policies. A common theme highlighted targets set at the bank parent level which are now beginning to filter down throughout the organization. A couple of standout best practices included a global committee that oversees efforts to create and grow ESG focused businesses and board-level focus on ESG driving business strategy for the last 15 years. Experience and a high level of competence at both the senior management level and at the board level were highlighted as the single most important indicator of ESG risk, resilience, and performance by rating agencies.

The discussions about senior level ESG targets tied to compensation were consistent across the board. It revealed that today most have high-level KPIs built into overall performance targets, but only one reported specific metrics tied to compensation. In the one case with specific metrics, two-thirds of incentive compensation was tied to non-financial metrics such as employee engagement, DEI, and volunteerism. Most predicted that ESG measurements tied to executive compensation will be increasing, which has been borne out by 2021 proxy filings. As the standards for disclosures are evolving many equipment finance companies are gathering data and considering what ESG-related targets make sense at the board and executive levels. One area of measurement, where several examples were provided, was the percent of business originating from sustainability or ESG-related activities. Progress was measured based on the percent increase of ESG-related financing. Examples included the percentage of new business derived from ESG-related areas and increased diversity.

**DEI Strategy and Measures:** There was no question in the interviews that DEI is a key priority across the equipment finance ecosystem. Without exception, the discussions covered enthusiastic and significantly enhanced diversity efforts since the beginning of the pandemic. The importance of DEI to recruiting, retention, business results, brand, and risk mitigation came across resoundingly clear in the interviews. Some of the increased efforts around DEI included:

- Hired Chief Diversity officer
- Created a voluntary diversity committee
- Implemented targets for percent of diverse candidates on job interview slates
- Focused effort to increase diversity at managing director level
- Increased specific efforts to recruit for diversity
- Adopted the use of personal pronouns

There is keen awareness across the workforce of a company's ability to demonstrate the value of diversity in their actions. Employees are watching what senior management is doing and where progress is and is not being made. In an example one interviewee provided, there is less and less tolerance for stating things such as support for BLM while continuing to contribute to political candidates who do not support diversity. Companies must walk the talk in order to recruit and retain talent and avoid brand damage.

In stark contrast to a common understanding of the importance of DEI, there was a noted lack of specific management targets or disclosures on progress towards DEI targets. Although there might be information provided on DEI progress in company level CSR or ESG reporting, it is not currently included in KPIs with a direct connection to executive compensation. Several participants discussed subjective, or high-level KPIs with largely subjective assessments of progress in executive incentive compensation. Measures on diversity are evolving and most expect that their organization will be increasing the focus and measurement of DEI efforts with more direct ties to compensation plans. As these measures evolve there are important discussions happening within organizations about DEI best practices and, thoughtful approaches to what and how to share information.

**Community Engagement:** Not surprisingly, a focus on ESG in corporate boardrooms coincided with an eye towards stakeholder impact. Community engagement is a priority throughout the industry. Such efforts are evident not only in volunteer activities and monetary donations but also in community impact-oriented finance activities. Community Reinvestment Act (CRA) financing remains a meaningful vehicle for banks to have an impact on the local community in assets such as affordable multi-family housing. Positive community impact has a multi-dimensional positive outcome in that many employees want to work for companies with a clear social mission that makes a positive difference in the communities in which they exist. Employees, in turn, want the opportunity to serve their communities. They place great value on their employers providing them with options to do so. Some of the examples discussed on community engagement activities included:

- Paid time off to volunteer in the community
- Scholarship programs / funds
- Mentoring
- Donations to local organizations serving the homeless
- Sponsorship of diverse channel partners through industry training programs
- 0% financing to HBCU

**Cybersecurity:** Cybersecurity is an integral part of ESG efforts, especially in the financial services industry. Cybersecurity oversight fits squarely in the ‘S’ pillar of ESG as an area of social concern. Data privacy and the protection of personally identifiable information (PII) are increasingly critical for companies and a critical element of maintaining the trust of customers and vendor partners.

Increased use of technology and data creation to deliver global solutions has increased opportunities in financial services while simultaneously creating new cyber risks. The World Economic Forum Global Risk Report 2021 lists cybersecurity failure as a critical global threat. The NACD board survey found that 60.5% of board directors identified cybersecurity as important or very important.<sup>50</sup> In 2018, the General Data Privacy Regulation (GDPR) in Europe and, in that same year, the California Consumer Privacy Act CCPA, became law. Both have increased compliance and oversight requirements and impose penalties for non-compliance.

For the equipment finance industry, data security is critical. In fact, it is one of the non-financial benefits of an ESG focus cited in the research. In the IT finance sector data, scrubbing is now an essential element of the equipment recycling process to ensure the removal of PII (Personally Identifiable Information). One company interviewed discussed their use of an ethical hacker to probe for areas of vulnerability to data breaches

### **Asset Management:**

As with credit underwriting, any initiative involving a shift in the types of equipment being included in a lender’s portfolio necessitates the involvement of asset management early in the process. All of our participants underscored the importance of asset management going forward due to the unknowns created by rapidly changing technology. Some of the issues to be addressed are:

- Impact of new asset types on existing portfolio performance
- Battery life vs transaction term
- Strategic alignment with the vendor regarding off-lease equipment
- Potential secondary markets for new equipment types
- Appropriate portfolio concentration levels
- Equipment technical aspects vs current and projected market demand
- Likelihood of holdover rent at end of term
- Potential for equipment obsolescence
- Ability and cost to relicense operating software upon a remarketing event

## **External Focus and Implications**

### **Accountability:**

Eight of our nine respondents reported being in varying stages of assessing their supply chains for ethics, labor practices, DEI issues, pollution, and other ESG-related concerns. Half of these were looking at these issues on an informal basis, while the other four reported either having or developing specific criteria for their partners. In addition, four of our nine respondents reported that their customers and suppliers are requiring ESG-related disclosures as part of a periodic review process. One of these four has engaged a third-party ESG rating company to assess their operations and make it easier to address ESG-related questions in the RFP response process.



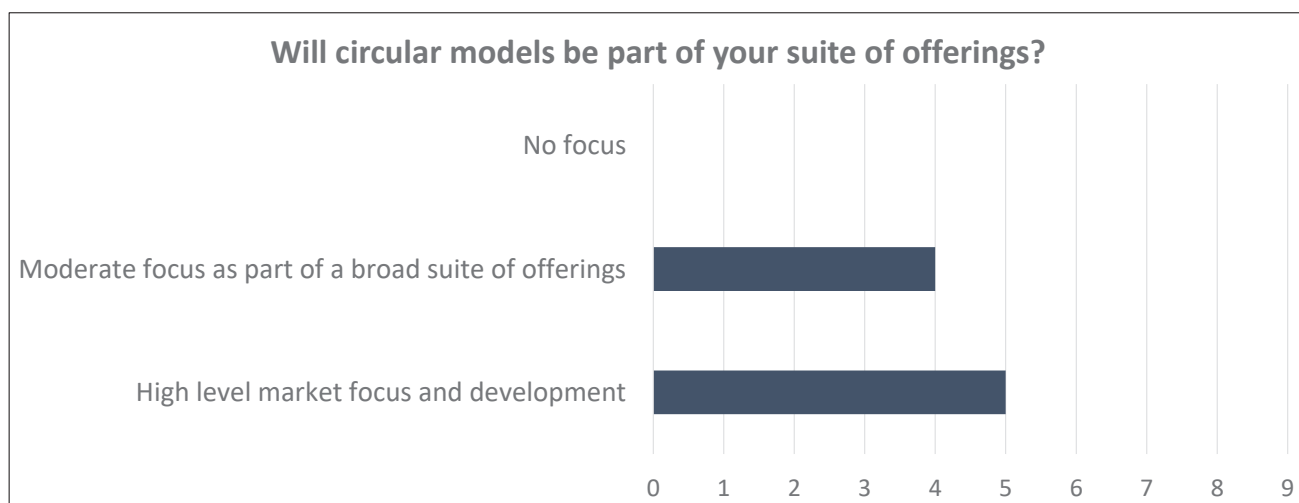
## Underwriting:

Vendor and industry underwriting are critical concerns when assessing an ESG strategy. To help manage the risks, all of our respondents elected to target adjacent markets to those being already being served outside of an ESG strategy. Many of the manufacturers and sellers of new technologies can be undercapitalized relative to their more traditional counterparts and the market for their products is less established. One respondent described their vendor selection criteria as “looking for a partner rather than a victim,” meaning that they work with vendors who are on the same page relative to financing as a sales tool and remarketing of the equipment at end of term.

## Asset Management:

As part of our assessment of the asset management implications of an ESG strategy, we asked our participants whether circular models would be among their product offerings. As shown in **Exhibit 19** below, all of our participants planned to include circular offerings due to client demand for usage-based models and manufacturers’ commitment to sustainability.

**Exhibit 19: Circular Model Offerings**



Source: The Alta Group, LLC

## Other:

One of our respondents indicated that they have partnered with a third-party provider of carbon offsets to facilitate customers’ progress toward zero-carbon commitments. In addition, another respondent indicated their company’s policy to purchase offsets against air travel as part of their own net-zero commitment. These arrangements are common among larger companies and are expected to increase in popularity as the market matures.

Another external factor to consider is the ESG commitments of financial partners and their impact on the syndications market. As more financial services firms look to build ESG-related assets, the needs of financial partners will change, potentially making it more difficult to place oil and gas and other GHG-heavy transactions.

Also, it is likely in the near term that until a common ESG framework exists and the secondary market for transactions matures, parties to a syndicated transaction will view it very differently regarding:

- Utilization and type of carbon offset
- Viability of an equipment manufacturer or technology
- Environmental impact of an asset or group of assets
- Strategic fit

For those relying on syndication for funding or risk management, communication with partners about evolving strategy will be critical.

Three respondents volunteered that they believe external communication is critical to see the full benefits of their ESG strategy. Some of these potential gains from public awareness include:

- Recruiting
- Getting on vendor short lists for opportunities
- Attracting investors
- Avoiding the reputational risk of not appearing to have an ESG commitment

Some of the ways that companies raise awareness of their ESG strategies include thought leadership articles, CSRs, participation in conferences, recruiting events, and many others depending on the market, circumstances, and desired outcomes.

## ESG Disclosure Frameworks

This section explores global efforts to assist primary stakeholders in understanding, contributing to, and adapting to KPI and standardization frameworks that will be used to address disclosure and measurement requirements.

### ESG Disclosure Overview

ESG data collection, standard setting, and disclosure is an alphabet soup of acronyms that have fostered an environment of chaos, confusion, and conflict. Public companies have had to navigate a wide range of optional and required disclosure expectations. This current confused state represents a typical outcome when different stakeholders and different purposes drive disclosure that, as of today, is primarily voluntary. Although there are some SEC disclosure requirements for climate change in the United States, most activities under the broader umbrella of ESG are ill-defined. All of this is already under review at an international level and is expected to also be tackled by the SEC in the not-too-distant future as it relates to non-climate change topics. This will undoubtedly result in a lengthy debate on mandatory vs. voluntary disclosure between standards setting organizations, third-party metric providers, government, quasi-government, nongovernment organizations, and other stakeholders. Multiple surveys were conducted by external organizations to solicit feedback from public companies with regards to emerging standards requirements. These survey results are summarized in **Appendix A**.

### ESG On-Going Evolution of Sustainability Reporting Ecosystem

The growth in ESG reporting is rooted in CSR reporting. In the 1970s, CSR was a starting point for businesses to take ownership of sustainability initiatives. It was considered part of the social contract between businesses and their obligation to constructively serve the needs of society. While CSR aims to drive corporate accountability, ESG criteria have an objective to make it measurable.

As stakeholders seek more information on how ESG impacts are being managed, the range of impacts also continues to evolve. One concern to investors is the fact that what is considered to be a material issue can also change over time. This is called 'dynamic materiality'. An example of this is a comparison of climate change, which has evolved to be a material issue over the past decade, to Covid-19, which created a material impact over the course of a year. Because the demand from stakeholders to better understand all of these sustainability risks and opportunities can impact a company's access to capital, many companies choose to not only provide ESG information based on SEC and industry requirements but are volunteering disclosure on a number of other issues. In many cases, what gets measured gets disclosed but is not necessarily managed or material.

This complex and ever-changing level of requirements, enabled by the unlimited supply of sustainability information and information assurance services provided by third-party service organizations, has contributed to the proliferation of ESG standards' setting and frameworks initiatives and has created even more confusion for organizations trying to navigate this landscape.

Frameworks and standards are complementary parts to the overall ESG and sustainability reporting ecosystem:

**Frameworks:** Provide guidance on how information is structured for disclosure and what topics should be covered

**Standards:** Specific and actionable reporting requirements for topics covered under the framework and with associated metrics. Standards make 'frameworks' actionable.

As complex as it was to bring transparency, accountability, and efficiency to financial reporting (see **Appendix A** for an overview of this evolution), sustainability and non-financial disclosure is even more complicated. The economic objective of financial reporting is well defined, while the objectives of users of sustainability information can range from those making economic decisions to those making judgments about how a company's values align with their own. Financial reporting is also much less dynamic. Most financial ratios and assessment tools are products of years of historical analysis that have contributed to a high degree of reliability in the metrics developed whereas the dynamic nature of sustainability reporting is not nearly as 'time tested'.

Similar to the role that the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) played in the evolution of bringing integrity, enforceability, and consistency to the financial reporting evaluation, current ESG efforts to create standards and frameworks represent a comparable attempt to bring order to chaos for sustainability reporting. Unfortunately, these efforts have been characterized by a wide range of interests and organizations with unique sets of stakeholders and unique definitions on materiality. Three of these initiatives are referenced below and then explored in greater detail:

1. International Sustainability Standards Board (ISSB), a commitment by five leading sustainability disclosure organizations to consolidate into a new board
2. UN Sustainability Development Goals (SDG)
3. EU Corporate Sustainability Reporting Directive (CSRD)/European Financial Reporting Advisory Group (EFRAG)

## **#1: International Sustainability Standards Board (ISSB):**

In September 2020, several major non-financial reporting organizations issued a statement of intent to work together towards developing comprehensive corporate reporting guidelines that complement financial accounting standards and principles. On November 3, 2021, after the Glasgow COP26 meeting, the International Financial Reporting Standards Foundation Trustees formally announced the formation of the ISSB. The ISSB will be the most well-established international effort to bring consistency to standard settings. It is the culminating joint effort of organizations that included the Value Reporting Foundation (VRF), the Global Reporting Initiative (GRI), the Climate Disclosure Standards Board (CDSB), and the Carbon Disclosure Project. More detail on each of these organizations can be found in **Appendix A**.

The International Financial Reporting Standards Foundation, which already oversees the International Accounting Standards Board (IASB) and corresponding IFRS accounting standards used in over 140 countries, will provide oversight for this sustainability standards board. A key objective of this new board will be to publish initial standards by 2022. Two prototypes have already been created for climate and other general disclosure that outline materiality and other guidelines around strategy, governance, risk management, and establishing metrics. These prototypes are foundational and are intended to provide both public and privately held companies with a path towards improved disclosure. Hopefully, this will accelerate the adoption of disclosure guidelines as the ISSB prepares to solicit feedback on exposure drafts before finalizing standards. Although the priority prototype is for climate disclosure, the general disclosure prototype will follow a similar framework. There is an expectation that final climate standards will be issued by the end of 2022 and general disclosure standards for all other ESG activities will follow. While mandatory adoption of ISSB standards is subject to individual country jurisdiction, there will continue to be political, societal, and employee pressure to move in the direction of disclosure that is both consistent and reliable. Exhibit 20 provides a high-level summary of current recommended key reporting elements for the two prototypes that have been drafted for Climate and General sustainability topics.<sup>51</sup>

## Exhibit 20: Key Reporting Elements for ISSB Prototypes

### GOVERNANCE

Disclosure that enables users of the information to understand processes, controls and procedures to monitor and manage climate or other sustainability risks and opportunities. Disclosure can include, but is not limited to, some of the following:

- Identification of individuals or groups responsible
- How responsibilities are reflected in policies or board mandates
- Assurance that skill levels are adequate for responsibility
- Process and frequency of review of related risks and opportunities
- Process to incorporate risks and opportunities into strategy, risk management policies, etc.
- Establishing performance and remuneration targets
- Cascade of requirements throughout organization

### STRATEGY

Disclosure that enables users of the information to understand the entities strategy for addressing significant risks and opportunities and whether it is incorporated or core to the entity's strategy. Disclosure can include, but is not limited to, some of the following:

- Identification of risks and opportunities that impact business model, strategy and cash flows over the short, medium or long term
- Disclosure of qualitative, and quantitative when feasible, analysis of the entity's resilience to significant risks including how the analysis was undertaken, the boundary and time horizon of the analysis and the results of the analysis
- Definition of 'short, medium and long term'

### RISK MANAGEMENT

Disclosure that enables users of the information to understand how an entity's existing and emerging sustainability related risks are integrated into existing risk management policies. Disclosure can include, but is not limited to, some of the following:

- Process why which risks are identified
- Process for assessment of risk
- How risks are being monitored, managed and mitigated including related policies
- Extent to which, and how, the management process for these risks are incorporated into the entity's overall risk management process

### METRICS & TARGETS

Disclosure that enables users of the information to understand how an entity measures and monitors its significant sustainability related financial risks and opportunities. Disclosure can include, but is not limited to, some of the following:

- Cross industry, industry and activity metrics relevant to entities regardless of industry and business model
- Key performance indicators used to assess progress
- Explanations of methods used and any changes in or replacement of key metrics previously used



Although this new ISSB board, has the backing of the Value Reporting Foundation, G7, and the International Organization of Securities Commissioners (IOSCO), there is no worldwide buy-in. The U.S. Securities and Exchange Commission (SEC) and the European Commission are less supportive of any efforts that might inject worldwide politics into the process or undermine the current reliability of financial reporting. Commissioner Peirce, one of five commissioners of the SEC, has voiced skepticism of sustainability reporting under the ISSB jurisdiction because standards associated with economic decision-making may be weakened as the board intends to serve the needs of constituencies other than investors.<sup>52</sup> Consequently, the SEC is weighing options to introduce its own initiative in the U.S. Although one option would be for the SEC to write its own disclosure rules, many businesses and institutional investors would prefer a more independent entity, like the FASB, to create or oversee a sustainability board. This would mirror the international community's creation of the International Sustainability Standards Board (ISSB) as a parallel board to the International Accounting Standards Board (IASB). There is also an expectation that rather than start from scratch, any U.S. effort would also draw from the work already done by the Sustainability Accounting Standards Board (SASB), who has focused on specific standards for 77 different industries, as well as selected efforts that will be the focus of the newly created ISSB.

## **#2: United Nations Sustainability Development Goals (SDGs):**

Another common reference with regards to ESG and sustainability frameworks is the United Nations Sustainability Development Goals (SDGs). These goals were established in 2015 by the United Nations General Assembly as a blueprint for a more sustainable future. SDGs are 17 very broadly defined interdependent issues facing humanity.

Both SDGs and the SASB materiality framework offer ESG-related standards to measure a company's performance. Where the UN SDGs created momentum to help companies and investors understand the impact of long-term sustainable business models, SASB (now part of the recently established ISSB) provided a view as to whether or not these sustainability issues were financially material to companies in a specific industry.

Each of the 17 UN SDGs listed below has multiple targets and indicators with which to monitor or measure progress. SASB has successfully mapped over 90% of its standards to the SDG goals and individual targets.<sup>53</sup>

- Poverty
- Hunger
- Health and well-being
- Education
- Gender equality
- Clean water and sanitation
- Affordable clean energy
- Work and economic growth
- Industry innovation and infrastructure
- Reduced inequalities
- Sustainable cities and communities
- Responsible consumption and production

- Climate action
- Life below water
- Life on land
- Peace, justice, and strong institutions
- Partnerships for the goals

MSCI, formerly Morgan Stanley International, measured progress of 8550 companies towards SDG targets in March 2021. Companies were evaluated along with the range of “strongly aligned” to “strongly misaligned” in terms of positive or negative contribution to each of the 17 goals. The largest number of companies reporting on any individual goal was under 2000 of the 8550 companies in the MSCI database. Some of the key findings included the following:

- Goal Alignment: 38% were aligned and 55% were misaligned or neutral. Only .2% of companies were strongly aligned to UN SDGs
- Geographical progress: While Asia, Europe Australia/New Zealand scored between 15%-19% of companies having positive alignment, the U.S. trailed at 8%.
- Best and worst performing goal: ‘Responsible production and consumption’ was one of the most strongly aligned goals with 115 companies meeting the criteria. The targets measured included building sustainable infrastructure, energy efficiency, and creating green jobs. However, there were 598 companies that were strongly misaligned to the same goal, making it also the worst performing goal. The specific targets that performed the worst were climate action and affordable and clean energy.<sup>54</sup>

### #3: EU Corporate Sustainability Reporting Directive (CSRD)<sup>55</sup>:

The CSRD, published in April 2021, amends the 2014 Non-Financial Reporting Directive (NFRD). The NFRD required larger listed companies, with more than 500 employees, to disclose information on the way they operate and manage social and environmental challenges. The CSRD addresses the demand for enhanced scope related to reporting standards. The CSRD will amend existing EU laws to mandate reporting and assurance activities and will improve the ability to achieve an EU goal of having sustainability on par with financial reporting. The key elements of the CSRD include the following:

- **Scope:** Expands the NFRD scope from large, listed companies with more than 500 employees to all large EU companies plus all large and small companies that are listed. The expectation is that this will increase the number of companies subject to the directive from approximately 12K under NFRD to almost 50K under CSRD.
- **Reporting:** Double materiality is an extension of a key accounting concept of materiality of financial information and required disclosure reporting. Double materiality takes the concept one step further. It was introduced by the EU Commission as part of the non-binding guidelines on NFRD. Under this reporting direction, ESG issues create risks and opportunities that are material from a financial perspective, an impact perspective, or both. The principle of ‘double materiality’ will remain under CSRD but companies who are deemed to be in-scope will also have to report on mandatory sustainability standards (regardless of materiality).
- **Audit:** For the first time, CSRD addresses the issue of data inconsistencies by requiring audit assurance for sustainability information.

- **Digitization:** Sustainability information must be incorporated into management reports versus being reported separately. It must be digitized so that it can be incorporated into a single European repository.
- **Timing:** If the proposal is adopted, with agreed upon standards, large in-scope companies would be required to comply for financial years starting after January 2023. Smaller companies will have to comply from January 2026.

The standardization of sustainable reporting is one of the most important aspects of the CSRD. The EU Commission has made it clear that it is their ambition to align with other EU initiatives so that there is no duplication in reporting requirements.

## Stakeholder Perspectives and Key Challenges

Investors, sustainability experts, standards setters, rating agencies, and companies who report on their own and others' progress towards sustainability goals are all stakeholders in the process to bring more effective measurement and management to ESG initiatives.

Stakeholders in the investment community, Sustainability Accounting Standards Board (SAB), Value Reporting Foundation (VRF), Securities and Exchange Commission (SEC), accounting firms, academia, and others provided valuable insight on the current landscape of standard setting and the challenges that exist in driving towards more consistently applied and meaningful data.

Key challenges identified included standards convergence efforts, lack of materiality guidelines, the impact of dynamic change, implementation costs, and potential political overtones and influences. Each of these is explored in more detail as follows:

**Standards convergence:** The chaos of having multiple frameworks and standards created the motivation to merge similar and complementary frameworks. The international community is ahead of the U.S. in terms of both financial and non-financial standards setting activities. The EU Commission has led non-financial reporting standards as part of its Non-Financial Reporting Directive (NFRD). Because the NFRD has little rigor in data quality or consistency, it was amended in the CSRD to substantially increase the number of in-scope companies and sustainability reporting requirements. The EU Commission, however, will also work with the International Sustainability Standards Board (ISSB) to try to enhance the congruence of initiatives and reduce redundancy in requirements. The ISSB will start with a focus on climate change before moving on to standardizing other ESG disclosure topics. Although this specific effort will include an international board, the U.S. will initiate its own effort in order to incorporate the language of securities laws required in the U.S. The SEC will be influenced by these other standard's initiatives and likely to look for guidance from pre-existing SASB industry standards rather than 'reinvent the wheel'. There is also a high likelihood that although US companies will not be bound by non-U.S. standards in the U.S. if they operate internationally, standards will be applied based on the jurisdiction in which they operate. One of the concerns emerging in this convergence activity is the concept of liability around disclosure. The SEC is likely to take a position that some disclosure, particularly with regards to Scope 3 emissions resulting from assets that are not owned or controlled by the reporting organization, are deemed to be 'forward thinking' disclosures that would provide the company with safe harbor from litigation. All of these topics are on the table with regards to convergence activities.

*"Over the next five years, I expect to see fewer acronyms in the alphabet soup, but I don't expect a single set. Even in an ideal world, it's not clear to me that all of the distinct reporting needs related to corporate activity around the globe can or should be overseen by a single standard setter or regulator." (Jeffrey Hales, Charles T. Zlatkovich Centennial Professor, McCombs School of Business at the University of Texas and Chair of the SASB Standards Board Value Reporting Foundation)*

**Lack of materiality guidelines:** The capital markets are based on principles that materiality matters or else there's no distinction between what is material vs. 'noise'. Although there are prolific frameworks and standards, today, companies often need to develop their own stories based on what they know about a framework, why it might be material to them, and how they are measuring and evaluating it. A good first step is that there needs to be a good understanding of what investors might be missing in their ability to evaluate a company. The increase in the number of companies using SASB standards, which focuses on financial materiality within specific industries, from a handful a few years ago to more than 50% of the S&P Global 100, highlights a movement towards reporting on more financially material aspects of ESG.

**Data consistency and assurance:** Investors are swimming in a sea of information due to companies who are capitalizing on their ability to use AI to collect thousands of data points. However, there is no clarity on how to manage it or to create consistent algorithms to measure what is communicated. This is especially critical as disclosure becomes more regulated and requires investor communications to be validated and standardized. There is agreement amongst most investors that ESG data is prolific but not necessarily valid. This contributes to the practice of greenwashing.

*"Greenwashing becomes easier when investors are inundated with more information, especially when that information isn't prepared in a way that allows for meaningful comparisons. Disclosure standards can help to filter the set of information being disclosed and to make that information more decision useful for users. They are a key defense against greenwashing." (Jeffrey Hales, Charles T. Zlatkovich Centennial Professor, McCombs School of Business at the University of Texas and Chair of the SASB Standards Board Value Reporting Foundation)*

For this reason, most companies need to own their own disclosure narrative versus relying on data integrators providing data for analysis. Going forward, there is an expectation that data assurance will become increasingly important to address two distinctly different requirements. The first is an increase in demand for investors to understand a company's impact on ESG. The second is to assist investors on how to vote shares and make investment decisions. This second requirement has a different threshold in terms of data assurance and will contribute to the momentum and demand for enhanced data assurance.

Data assurance will continue to be under the microscope by the Securities and Exchange Commission. In fact, in April 2021, the Division of Examinations of the Securities and Exchange Commission issued a Risk Alert with regards to a review on ESG investing. The alert identified instances of potentially misleading investor practices related to ESG processes and representations regarding the adherence to global ESG frameworks and the use of underlying information. A key conclusion of the examination was that investment firms should

evaluate whether their disclosures, marketing claims and other public statements related to ESG investing are accurate.<sup>56</sup>

**Dynamic change:** The rigor of traditional standardization models, like FASB, are not as effective in dealing with the dynamic nature of ESG issues. These issues are subject to rapidly changing regulations and innovation and can render standards outdated before they are issued and implemented.

**Implementation Cost:** ESG advocates are cautious about focusing on the cost of implementation of initiatives. This is especially important as it relates to future proofing the supply chain. Standardization will need to cover investments required, impact on future cash flows, and any specific risks to the company associated with these costs.

**Political overtones:** Standard's setters are keenly aware of the risk in allowing political agendas to get in the way of giving investors the tools to evaluate a company's sustainability performance.

Most stakeholders believe that the investor is the primary audience for more standardized disclosure. Stronger ESG performance is used to weigh a portfolio more favorably by many investors. ESG is also part of the due diligence exercise in examining private equity (PE) investment opportunities.

Although more companies are paying attention to sustainability and discussing it on investor calls, unless issues are related to core business activities, some topics are ignored. Universal topics that are of higher interest to investors include:

- Climate
- Human capital management
- Incentives for ESG
- Governance principles
- SASB industry standards adoption

Within these topics, the first objective for investors is to understand how ESG initiatives benefit the business. Because SASB standards focus on how initiatives impact performance, adoption of SASB standards are viewed favorably. Although a lot of disclosure is considered voluntary today, there is an expectation that more will be mandated in the near term.

Portfolio investors shared that ESG impacts every buy, sell and hold position because long-term shareholders want to understand the effect of the long-term value of an enterprise. With this in mind, the best companies tend to integrate ESG into the fiber of the company's overall strategy even if disclosure is not yet robust.

From the perspective of standard setters, there is a belief that information requirements fall into two critical categories, neither of which are sufficiently captured in existing systems and standards today:

- Information required by capital markets to assess enterprise value. Financial models are good for what is controllable but less useful when ESG intangible costs and benefits become increasingly important elements of business models and strategies.
- Information required by governments to create regulations, tax incentives, and policies.



While there is overlap in these two categories, the information used is different. On the value creation side, information requirements have been driven by asset managers. Governments have led the initiative for regulatory policy and non-financial requirements. Looking five years into the future, standards setters agree that one set of standards with one governing body is not yet likely given the multiple interests being served for investors and governments. However, there is hope that the distinctions between these initiatives, standards, and frameworks will continue to be clarified and harmonized.

When standards-setters were asked how their initiatives might positively impact capital markets, there was agreement that companies are changing their operations in response to what is being reported. An example was cited with regards to Dodd-Frank mining safety disclosures required in the 10K. Research has found that required disclosure had a significant impact in decreasing the number of accidents and incidents. It was also presumed that this improvement was due to investments in company operations. Going forward, capital markets will need to figure out what information is useful to demonstrate cost of capital payback.

Typical financial metrics generally reflect historical performance perspectives. The challenge with ESG performance involves creating a prospective view that incorporates ESG values into longer-term decision making. Rather than focus on past performance, the objective is to demonstrate progress by quantifying potential impacts and designing guidelines that ultimately create value. Progress reporting on non-financial metrics (e.g., emissions, resource consumption, diversity) is not dissimilar to financial metric tracking and includes identifying and mitigating non-financial risks.

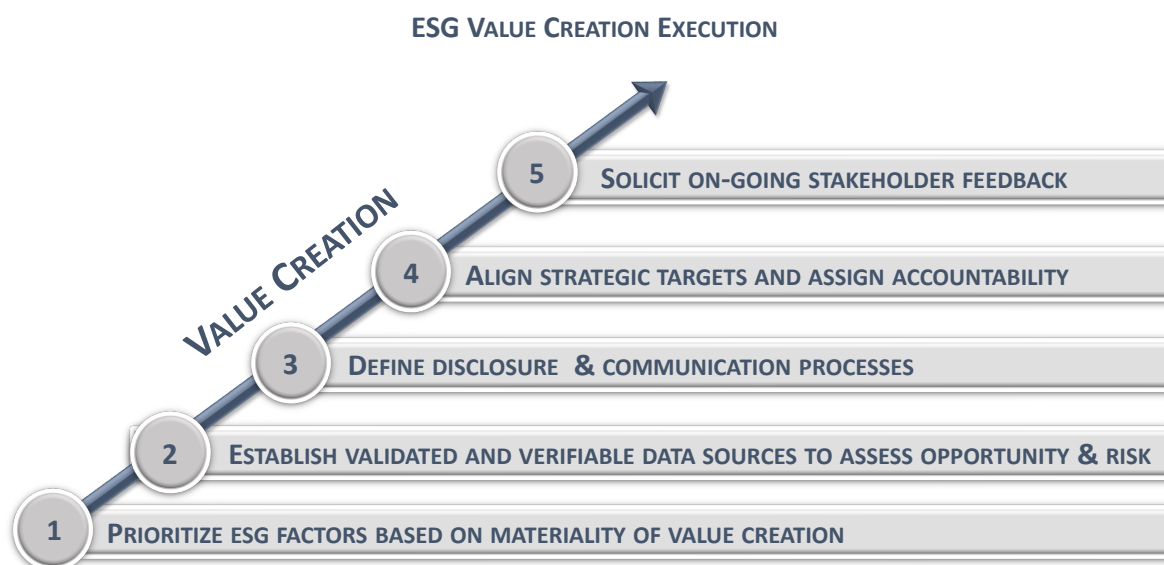
A legitimate question is 'who' will own the overall process for ESG disclosure execution within a company. This differs from individuals who might have accountability and management of a specific ESG metric. Finance departments, as existing financial metric gatekeepers, are likely to play a prominent role in the disclosure process as ESG reporting becomes more integrally linked to financial reporting disclosures. Finance skills in fiduciary reporting, data analysis, internal controls, and governance are well suited to support the evolving standards and requirements for ESG value creation, performance assessment, and disclosure reporting.

## ESG Value Creation and Execution Focus

Adoption of ESG strategies, driven in part by an aggressively evolving regulatory environment, will require the equipment leasing industry to examine both internal and external options that better align with investor and market demands.

The ability to leverage ESG to create value requires a strong management commitment to incorporate ESG into the core strategy of the company. At a minimum, this involves a 5-step approach to successfully execute an ESG value creation strategy as represented in **Exhibit 21** and further defined below:

**Exhibit 21: ESG Value Creation Execution**



Source: The Alta Group, LLC

1. **Prioritize ESG factors based on the materiality of value creation:** If you can't measure it, you can't manage it. The challenge in this first step in the process is to isolate ESG activities that have a material impact on longer-term performance to enable the creation of an effective management performance process.
2. **Establish validated and verifiable data sources to assess opportunity and risk:** Internal and external data sources can be utilized to drive high-quality retrospective and predictive analysis. Risks can also be mitigated by incorporating data security and infrastructure sources into traditional internal control process management.
3. **Define disclosure and communication processes:** Although some disclosure is mandated by regulatory agencies, there are optional or voluntary disclosures that can be included in a CSR report. A CSR is a formal document that attempts to assess the positive impact that a company might have on the world around them. Immateriality or lack of transparency is a common flaw and contributes to 'greenwashing'.

To promote a positive image with regards to ESG disclosure, it becomes imperative that internal and external disclosures and communications are well defined and have strong internal process management focused on sustaining materiality, transparency, and validation as key criteria for disclosure.

4. **Align strategic targets and assign accountability:** As you move further up the ladder in the execution of a mature ESG value creation program, there needs to be strong alignment of strategic objectives that incorporate ESG as a key pillar. Key performance indicators need to be established with corresponding targets and assigned performance accountability.
5. **Solicit on-going stakeholder feedback:** One of the challenges with non-financial ESG performance measurement is the fact that it is much more dynamic when compared to its financial counterpart. Stakeholder familiarity and reliance on key financial metrics have been time-tested. In contrast, ESG priorities and the data associated with those priorities changes rapidly based on cultural, environmental, social, and other emerging material issues. It becomes imperative to keep up with values considered important to key stakeholders. This requires creating a process to solicit and prioritize stakeholder feedback on a regular basis.

New segments, asset classes, and offerings that focus on ESG requirements will undoubtedly create growth opportunities for the equipment leasing industry. However, successful execution is dependent on addressing internal organization, process, implementation cost, policy, and disclosure challenges.

## Conclusion

As this research report is published in the early months of 2022 at the same time as worldwide ESG momentum is building, clarity on the rules of the road for ESG transparency, disclosure, and capital deployment remain dynamic. The pandemic-induced supply chain, inflation, competition for talent, and pending interest rate increases add short-term complexity while shedding a stark light on the urgency of ESG strategy. **Exhibit 22** illustrates the insights gleaned throughout the research and previously described in the introductory section. This research intends to provide insight and framework to inform equipment leasing and finance companies to begin or continue their ESG journey.

### Exhibit 22: Key ESG Research Insights



Source: The Alta Group, LLC

## Appendix A: Standards and Disclosure Supplemental Content

### Public Company Survey Feedback on Disclosure and Reporting Initiatives

In order to incorporate input from key stakeholders into the SEC disclosure initiatives, a survey of 436 public companies was sponsored by the U.S. Chamber of Commerce's Center for Capital Markets Competitiveness (CCMC), Nasdaq, and others to better understand current practices and ESG reporting challenges related to climate change requirements with an intent to demonstrate the impact that ESG disclosures have on public companies and their stakeholders in general. Participating public companies, representing 17 industries, ranged in size from \$700M to over \$5B. Key findings include some of the following:<sup>57</sup>

- 61% indicated that ESG is a subjective term and difficult to define by regulators.
- 50% responded that third-party standard setters focus on immaterial information and lack transparency in the data.
- Because there are a vast number of standard setting bodies (e.g., Sustainability Accounting Standards Board, Global Reporting Initiative, Task Force on Climate related Financial Disclosure, Customer Data Platform, International Financial Reporting Standards, United Nations Principles for Responsible Investing, EU Non-Financial Reporting Directive, industry specific organizations), companies are inconsistent on which one(s) they use.
- Overwhelming support (89%) for a scaled approach in ESG disclosure that might be based on market capitalization, revenue, type of registrant, or other metrics.
- 82% agreed that companies should have the flexibility to determine how and what to disclose based on individual issues that are material to them.

The survey findings confirm that developing standards for ESG will require a healthy degree of caution and cooperation between all stakeholders to create an effective system of disclosure in the United States.

Another survey, The KMPG Survey of Sustainability Reporting 2020, included 5200 of the largest companies from 52 countries as well as the largest 250 revenue producing companies in the Fortune 500. This survey focused on global trends in sustainability reporting. Today, 80% of companies surveyed now report on sustainability, substantially up from 12% when the survey was first published in 1993. Drivers of this growth include the impact of new laws and regulations as well as a growing awareness of the importance of ESG risk management and the impact that ESG factors have on financial performance. It is important to understand that efforts to drive cooperation in the development of comprehensive guidelines will require looking at the broad array of stakeholders. There are two distinct lenses when looking at ESG issues: 1) those that create financial consequences and 2) those that impact society and the environment and create reputational risk. Financial relevance versus reputational risk is becoming increasingly more important in sustainability reporting.

Going forward, social issues associated with human rights, employee rights, diversity, and equality will ultimately take on the same financial relevance as has been witnessed with climate change disclosure. This will shine an even brighter spotlight on ESG assessment methodologies and standards. Of the 5200 companies surveyed, a significant majority of them use both Global Reporting initiative (GRI) and Sustainability Accounting Standards Board (SASB) as preferred reporting frameworks. GRI focuses on organizational impacts while SASB focuses on financially material issues. Together, they offer a more comprehensive perspective on performance. Another key component of any reporting framework includes a requirement for information integrity. Over 50% of the 5200 companies surveyed utilize third parties to provide this assurance<sup>58</sup>.



## Evolution of Financial Reporting Frameworks and Standards

The evolution of financial reporting frameworks and standards provides a good comparison to evolving sustainability and ESG disclosure. In the United States, the Accounting Principles Board (APB) was the authoritative board for certified public accountants and financial reporting from 1959 until 1973. It was the first generation of standard setting. With a part-time staff and a lack of complete independence from the government, the APB was slow and ultimately only published 31 opinions over the 14 years it was in operation. It was replaced by a more independent Financial Accounting Standards Board in 1973 and remains as the authoritative standards setting board for companies in the U.S. Similarly, in 1973, the rest of the international community, represented by accountancy organizations from a number of different countries, created the International Accounting Standards Committee (IASC) with a goal to harmonize accounting practices. In 2001, the IASC was replaced with a more independent standard-setting body, the International Accounting Standards Board (IASB). The standards created by the IASB are referred to as International Financial Reporting Standards (IFRS). These two governing bodies, FASB and IASB have matured to where financial markets can rely on the high quality, integrity, and enforceability of the standards to consistently evaluate financial performance.

## ISSB Formation Based on Collaboration of Key Organizations

On November 3, 2021, subsequent to the Glasgow COP26 meeting, the International Financial Reporting Standards Foundation Trustees formally announced the formation of the ISSB. The recently formed ISSB will be the most well-established international effort to bring consistency to standard setting. It is the culminating joint effort of five primary organizations that included the following:

**Value Reporting Foundation (VRF):** The Sustainability Accounting Standards Board (SASB) and the International Integrated Reporting Council (IIRC) were two of the five organizations that participated in the statement of intent to work together. In June 2021, these two organizations finalized a merger to become the Value Reporting Foundation. The intent of the merger was to consolidate staff from four different continents to work with the International Financial Reporting Standards (IFRS) Foundation to launch an International Sustainability Standards Board (ISSB) and to define the framework for integrated reporting.<sup>59</sup> The contribution from each of the founding organizations demonstrates the value of an underlying framework and the standards and metrics that bring the framework to life.

- **International Integrated Reporting Council (IIRC):** Global coalition of regulators, investors, accounting professionals, and other stakeholders who shared a common view that the integration of financial and non-financial reporting will become the corporate reporting norm and will enhance accountability and stewardship of a broad range of interdependent issues. The International Framework (IR) was created as the foundational framework for the future. It includes content such as an organization overview and how the organization operates; a description of the governance structure and its ability to create short, medium-term, and long-term value; a definition of the organization's business model; identification of specific risks and opportunities that impact the ability to create value; and strategy and resource allocation to support the direction of the company and how it intends to get there.<sup>60</sup>
- **Sustainability Accounting Standards Board (SASB):** Focused on financially material issues for external reporting with industry specific standards that identify risks and opportunities most likely to impact a company's financial condition, operating performance, or risk profile. One of the most significant contributions of SASB was to define how issues are substantially different from industry to industry. They defined metrics for 79 different industries to enable a deeper dive into sector specific information.

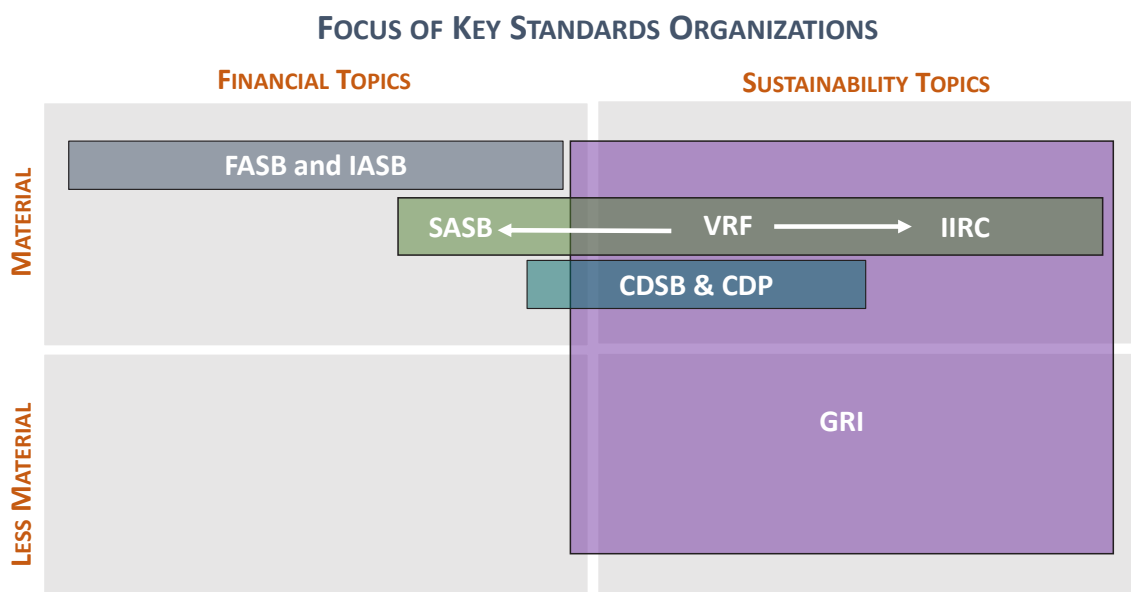
**Global Reporting Initiative (GRI):** Focused on developing standards for comprehensive disclosure on the organizational impacts of sustainability rather than financially material issues. GRI drives the discussion and narrative around sustainability issues whereas SASB focuses on those issues that are financially material. When GRI is used in conjunction with SASB standards, the combined reporting provides a more holistic perspective of sustainability impacts.

**Climate Disclosure Standards Board (CDSB):** An international consortium of businesses and environmental organizations focused more specifically on developing a framework and standards for climate change and environmental disclosure, specifically the Task Force on Climate-related Financial Disclosure (TCFD).

**Carbon Disclosure Project (CDP):** A not-for-profit charity that runs disclosure systems to manage environmental reporting. The CDP works closely with the CDSB to provide a platform for companies and investors to disclose climate change and environmental information.

**Exhibit 23** is a representation of these four organizations depicting their general focus on financial versus sustainability topics and the relative materiality of those topics. Since the definition of materiality can vary between organizations, **Exhibit 23** is only intended to be an illustration of relative differences. As a general rule, ESG materiality should be those factors that are likely to have a more consequential impact on the financial condition or operating performance of a business within a specific industry or sector. For example, fuel consumption is a more material issue for the transportation industry while data security will be of much more concern to the technology industry. In both cases, a failure to address material industry issues can also result in significant financial consequences. The challenge in creating meaningful integrated disclosure for both financial and non-financial issues is to ultimately bring some level of convergence to the many different standards and metrics that exist today.

**Exhibit 23: Focus of Key Standards Organizations**



Source: The Alta Group, LLC

## Glossary

Reference	Definition
<b>ABS</b>	Asset Backed Securities
<b>AUM</b>	Assets Under Management
<b>CDP</b>	Carbon Disclosure Project is a not-for-profit charity that runs disclosure systems to manage environmental reporting. The CDP works closely with the CDSB to provide a platform for companies and investors to disclose climate change and environmental information.
<b>CDSB</b>	Climate Disclosure Standards Board is an international consortium of businesses and environmental organizations focused more specifically on developing a framework and standards for climate change and environmental disclosure.
<b>Circular Model</b>	Circular models focus on the design, manufacture, usage, and recycling of assets that reduce the use of raw materials and waste.
<b>COP26</b>	26 <sup>th</sup> meeting of the Conference of Parties to the Paris Agreement
<b>CRA</b>	Community Reinvestment Act – Federal law designed to encourage commercial banks and savings associations to meet the needs of all borrowers including low- and moderate-income neighborhoods
<b>CSR</b>	Corporate Social Responsibility
<b>CSR Reporting</b>	Corporate Social Responsibility reporting is an internal and external facing document to communicate efforts related to environmental, ethical, philanthropic, and economic and their impact on the environment and the community. Considered part of the social contract between businesses and their obligation to constructively serve the needs of society. While CSR aims to drive corporate accountability, ESG criteria aim to make it measurable.
<b>CSRD</b>	Corporate Sustainability Reporting Initiative Directive published by the European Union in April 2021, amends the 2014 Non-Financial Reporting Directive to require disclosure of information related to the way companies operate and manage social and environmental challenges.
<b>DBE</b>	Disadvantaged Business Enterprise
<b>DEI</b>	Diversity, Equity and Inclusion
<b>ESG</b>	Environmental(E), social (S), and governance (G) factors are used to evaluate, measure and predict corporate financial performance based on the sustainable and ethical impacts associated with these factors.
<b>FBN</b>	Farmers Business Network
<b>GBP</b>	Green Bond Principles – developed by the ICMA
<b>GFANZ</b>	Glasgow Finance Alliance for Net Zero

<b>GHG</b>	Greenhouse Gasses
<b>Greenwashing</b>	Represents the practice of making false or exaggerated sustainability claims.
<b>GRI</b>	Global Reporting Initiative focused on developing standards for comprehensive disclosure on the organizational impacts of sustainability rather than financially material issues.
<b>HBCUs</b>	Historically Black Colleges and Universities
<b>ICMA</b>	International Capital Markets Association
<b>IIRC</b>	International Integrated Reporting Council was part of the merger into the Value Reporting Foundation in June 2021 along with the Sustainability Accounting Standards Board (SASB). The IIRC was a global coalition of regulators, investors, accounting professionals, and other stakeholders who shared a common view that the integration of financial and non-financial reporting will become the corporate reporting norm and will enhance accountability and stewardship of a broad range of interdependent issues.
<b>IoT</b>	Internet of Things, a reference to the use of the internet for pieces of equipment to “talk” to one another.
<b>KBRA</b>	Kroll Bond Rating Agency
<b>ISSB</b>	<p>International Sustainability Standards Board is the most well-established international effort to bring consistency to standard setting. It was created in November 2021, by the International Financial Reporting Standards Foundation Trustees, after the Glasgow COP26 meeting and will consolidate the efforts of multiple organizations that include:</p> <ul style="list-style-type: none"> <li>• Value Reporting Foundation (VRF)</li> <li>• Global Reporting Initiative (GRI)</li> <li>• Climate Disclosure Standards Board (CDSB)</li> <li>• Carbon Disclosure Project (CDP)</li> </ul>
<b>Linear Model</b>	The linear economic model emphasizes a more substantial contribution to waste when assets are produced without optimizing utilization or recycling opportunities.
<b>PAA</b>	Paris Accord Agreement
<b>RACs</b>	Risk Assessment Criteria
<b>ROI</b>	Return On Investment
<b>PII</b>	Personally Identifiable Information
<b>RMS</b>	Robotic Milking System

<b>SASB</b>	Sustainability Accounting Standards Board was part of the merger into the Value Reporting Foundation in June 2021 along with the International Integrated Reporting Council (IIRC). It focused on financially material issues for external reporting with over 70 industry specific standards that identify risks and opportunities most likely to impact a company's financial condition, operating performance, or risk profile.
<b>SDG</b>	Sustainability Development Goals established by the United Nations in 2015 as a blueprint for a more sustainable future. There are 17 broadly defined SDG categories related to interdependent issues facing humanity.
<b>SEC</b>	Securities and Exchange Commission
<b>SFDR</b>	In March 2021, the European Union implemented the first phase of the Sustainable Finance Disclosure Regulations (SFDR). These regulations aim to prevent the practice of making false or exaggerated sustainability claims known as 'greenwashing'.
<b>Sustainability Reporting Ecosystem</b>	Includes frameworks and standards for reporting and disclosure. Frameworks provide guidance on how information is structured for disclosure and which topics should be covered. Standards create specific metrics and actionable reporting requirements for topics covered under the framework. Standards make 'frameworks' actionable.
<b>SRI</b>	Socially responsible investing where the spectrum of investing can range from traditional investing, which is singularly focused on return on investment, to philanthropy, where ROI can be totally ignored in favor of inspiring positive change in the world.
<b>VRF</b>	Value Reporting Foundation was created in June 2021 as a result of the merger between the Sustainability Accounting Standards Board (SASB) and the International Integrated Reporting Council (IIRC). The intent of the merger was to consolidate staff from four different continents to work with the International Financial Reporting Standards (IFRS) Foundation to launch an International Sustainability Standards Board (ISSB) and to define the framework for integrated reporting



## Methodology

The methodology used to complete the research paper utilized the following five components.

1. Equipment Leasing & Finance Foundation Research including:
  - The Equipment Leasing & Finance Industry Horizon Report
  - The Archives of Annual State of the Equipment Finance Industry Reports (SEFI)
2. ELFA Research including:
  - Monthly Leasing and Finance Index (MLFI-25) and MLFI-25 & Beige Book Quarterly Review
3. Alta's intellectual property and experience
4. Direct person-to-person interviews with key industry stakeholders including equipment finance companies, manufacturers/vendors/captive finance companies
5. Outreach to funding sources, accounting, legal and regulatory advisors/standards experts, and rating agencies and investment banks
6. Primary research in contemporary ESG topics such as data and frameworks, sector specific investment trends, rating agency approaches, and research.

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Jonathan Alwin, Société Générale Equipment Finance

Razi Amin, ASPEN Capital Solutions LLC

Julia Gavrillov, Moritt Hock & Hamroff LLP

Valerie Gerard, The Alta Group

Eric McGriff, Wintrust Specialty Finance

Tom Ware, Tom Ware Advisory Services, LLC

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CSI Leasing

DLL

Mitsubishi HC Capital America

LEAF Commercial Capital Inc.

Société Générale Equipment Finance

Stryker's Flex Financial

In addition to those noted above, several companies expressed a preference for remaining anonymous. These included one large bank and one large manufacturer captive.

We would also like to acknowledge the participation of several individuals and/or organizations who contributed to providing expert insight. These included:

Jeffrey Hales, Charles T. Zlatkovich Centennial Professor, McCombs School of Business at the University of Texas and Chair of the SASB Standards Board Value Reporting Foundation

Kroll Bond Rating Agency

Macquarie Capital

## About the Researchers

### Patricia Voorhees

Patricia is an advisor focusing on the Fintech and sustainable finance markets with over 25 years of experience in commercial finance and technology. She works across the Fintech ecosystem advising Fintechs, international banks/ finance companies on investments/acquisitions, capital raising, alliances, and strategies that foster B2B finance innovation and sustainability.

Patricia believes that Fintech can enable solutions delivering positive impact in addressing some of our most pressing challenges such as inclusion and sustainability and support the realization of the UN Sustainable Development Goals. She offers her experience and energy towards those goals. She is a conference speaker, guest lecturer, and author of several articles on the circular economy, fintech, and inclusive finance.

Prior to joining the Alta Group Patricia was with GE Capital for over 16 years holding various executive positions including General Manager of Office equipment finance and Managing Director of M&A where she led many successful acquisitions and vendor captive strategic alliance development efforts. Patricia began her career at IBM in Systems Engineering and Client Management roles.

Patricia holds a BA in economics from Western Connecticut State University and MA degrees in Ethics and Society and Education for Peace and Social Justice from Fordham University.

### Diane Croessmann

Diane is currently a Director at The Alta Group where she brings extensive experience in the equipment and financing industry. Her career has focused on designing, deploying, and managing equipment leasing, financing, and managed services programs both nationally and internationally. Today, she brings that experience to a broad spectrum of clients who require support in examining strategies for market entry, asset management, managed services, and a wide range of other activities that focus on developing and optimizing equipment leasing, financing, and managed services opportunities.

Before joining The Alta Group, Diane served as the worldwide managing director of Lenovo Financial Services where she designed and implemented a global strategy for equipment leasing and managed services solutions.

Prior to Lenovo, Diane held multiple domestic and international executive level positions at Xerox where she was primarily involved in the development and deployment of a multi-billion-dollar captive leasing business. Other executive level experience at Xerox included being the controller of North America, vice president of customer operations, vice president/director of worldwide strategy, vice president/director of business transformation for the managed services business division, and general manager of leasing and customer business operations for Eastern Europe/Middle East, Latin America and India.

Diane had the pleasure to serve on the board of directors and executive committee of the Equipment Leasing and Finance Association, where she was involved in driving industry awareness for managed services. She is also a recognized industry speaker on topics including changes in lease accounting and migration to managed services offerings. She was a certified public accountant with Ernst and Young early in her career after graduating from Syracuse University in New York with a Bachelor of Science degree in accounting.

## **Gary LoMonaco**

Gary LoMonaco joined The Alta Group in 2021 as a director working primarily in the firm's Strategy and Competitive Alignment practice. He has spent over 35 years in the equipment finance business, with a broad range of expertise in the vendor and captive finance markets. He has held senior management roles in a number of prominent firms, with hands-on management of credit, operations, documentation, syndications, sales, originations, and vendor program management.

Gary is passionate about using his broad-ranging background to drive clients' success in establishing and optimizing finance capabilities in vendor and captive companies. He also is passionate about the environment and social concerns, having provided executive leadership for two ESOP-owned companies, sponsoring a number of initiatives to foster employee engagement, educate them about the benefits of employee ownership and minimize the carbon footprint of the firms. His commitment to the environment was fostered by his father, a prominent environmental engineer.

Prior to joining The Alta Group, Gary held senior management positions with Sirius Computer Financial Services, Forsythe/McArthur Associates, Banc of America Leasing and Capital, Fleet Capital Leasing, Heller Financial, and several other firms. He is active with the Equipment Leasing and Finance Association (ELFA), having served twice on its board of directors and served as chair for both the Vendor and Captive Finance and Independent Business Councils. Gary holds a BS degree in Business Administration from Southern Illinois University.

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