

Center for Sustainable Business

Sustainability Value Framework Tool

NYU Stern CSB 2023



A BETTER WORLD THROUGH BETTER BUSINESS

CSB Responsible Investing Framework for Private Equity

Context

- After <u>Phase I</u> of the PE Responsible Investing Framework, CSB identified practical tools needed to help GPs, LPs, and portfolio companies embed sustainability
- CSB conducted interviews with GPs, LPs, and other stakeholders
- CSB aims to maximize PE's potential through a sustainability lens (versus extractive capital via financial engineering, destroying jobs, communities and even the company itself if overleveraged/under-capitalized)

Phase I

- Academic literature review of the state
 of private equity
- Development of a PE Responsible
 Investment Framework
- Categories of impact: management & human capital, financial engineering, fund management, strategy & innovation, reporting transparency, societal impact

Phase II

The second phase of research supports the implementation of a responsible investing approach across the ownership lifecycle

Chapters

1 Learnings from Interview Process

- 2 Value Framework (Stage 1): DD Assessment
- 3 Value Framework (Stage 2): Issue Prioritization & KPI Development
- 4 Next Steps
- 5 Appendix

After conducting initial research, CSB began interviewing 30+ GPs, LPs, and others to identify key areas of focus

Research Process



CSB defined GP practices across the lifecycle to understand where specifically tools are needed

	Deal Sourcing / Pre DD	Due Diligence	Owne	ership	Exit
			Early Investment	Holding	
Current Practice	 Check company against exclusion list* ESG data request* If Impact focus, sourcing only on specific criteria (e.g., Quality Jobs) Gating methodology 	 Reviewing material issues, some ESG KPIs* Deal teams conduct valuation analyses (advanced may add ESG sensitivities) ESG scorecard 	 Outline what KPIs to be tracked* Focus on cost cutting Management team dialogues Outline ESG accountability structures* 	 Track some KPIs (potentially EDCI, LP- required, or regulatory) Create annual sustainability reports at portco level (SASB material metrics) Send ESG data to LPs 	 Add a sustainability story to sell at exit (often hacked together instead of planned for)
Limitation / Issues	 Difficult to understand how deep to go with ESG 	 Valuation doesn't reflect full extent of ESG Difficulty in understanding how "ESG mature" portfolio company is Lack of data for SMEs Not factoring opportunities 	 Lack of understanding of what KPIs to use Lack of knowledge around best sustainability levers to focus on Lack of developed ESG strategy 	 KPIs that are tracked are focused on process, not outcome 	 Lack KPIs to point to for sustainability story Never captured "avoided costs"
Areas of Interest & Rationale Where to Prioritize) Focus of Dis	• N/A scussion	 Quick valuation assessment DD tool denoting material issues (separate from holding period tool) 	 Denoting most impactful sustainability levers is adjacent to ROSI and allows business to know what to focus on immediately Accurately capture specific value creation 	 Helping frame material sustainability levers at early investment allows GP to know what to track over lifetime Track KPIs and link to valuation throughout 	 Track ROSI/ESG metrics to substantiate sustainable value growth at exit

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*indicates best practice

CSB considered a range of approaches for the value creation tool

	DCF Tool	Sensitivities Tool (Scenario Analysis)	Multiples Tool (Comps)	Bespoke KPIs	Case Studies	Two-Part Assessment & Strategy Tool
Description	DCF comparing a "Base Case" to an "ESG Case" and seeing the incremental benefit / cost	Provides a range of outcomes when considering future scenarios (e.g., hurricane area, sensitivity = frequency doubles)	Collection of benchmarked company multiples within specific industries (ESG- focused companies)	Develop a library of bespoke KPIs to better link finance with ESG	Develop a set of real- world case studies proving the link between sustainability and higher valuation	Composed of 1) quick assessment tool on material issues & drivers, and 2) deep dive tool denoting ESG strategy & KPIs
Pros	Easy to explain and easy for the audience to visualize	Easier to defend a range of outcomes rather than a single enterprise value	Simple for GPs to use, they would just look to the tool for directional guidance on what multiples are for similar firms	Potentially easy for GPs to adopt/track	Easy to disseminate and audience likely to use the case studies if they are effective	 Relevant to GPs in two stages and according to their needs Easier to explain and validate
Cons	Developing the underlying data proxies is a difficult and time-intensive process, GPs have own tools	Unclear on if GPs would actually adopt this or how it would layer on existing models	Existing services already provide comps analysis by industry for public companies, difficult to isolate ESG	Less appetite for more KPIs, already so may metrics to report	CSB has already done similar work, and while it is illustrative, it does not help the PE firm assess specific portcos	• Less quantitative than other approaches

During the DD phase, GPs need a quick assessment tool to identify material risks/opportunities; this changes once they are holding the company

Rationale for Two-Part Value Tool

Effectively Identifies and Measures Sustainable Value Creation

Second aspect of framework (after DD assessment tool) identifies the **most important sustainable value levers and helps define KPIs to track over the course of the investment**

Different Needs at Each Point of Investment Lifecycle **DD Phase:** quick, high-level tool due to time constraint – identify the material issues, practices, and value drivers before ownership

Holding Period: define the highest impact ESG areas, define associated KPIs, and measure over time, pointing at real data at exit and developing a sustainable growth story

Applicable to
Wider
Audience• Framework can be applied by various
stakeholders – GPs, portfolio companies, other
practitioners

Proposed Workflow

Stage 1 of Framework Tool – Quick Assessment

- Once a company has been identified during the DD process, select 1 of 11 SASB sectors
- 2. Model auto-populates the most important material issues, practices, and value drivers for the target (both risks & opportunities)
- 3. For each material issue, research the target's commitments and progress, and rate the target across key criteria – the analysis for the first tool is complete, providing a quick and directional assessment via an auto-sorted heatmap

Stage 2 of Framework Tool – Prioritization

- Prioritize the top 3-5 most important material issues/strategies that will drive the most value through new criteria
- 2. Measure KPIs over time and build the sustainable growth story; at exit, GP can point to track record of improvement and sustainable value creation to receive an ESG premium valuation

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In the first stage of the tool, users input the sector of the target portfolio company and rate it across key criteria

2 Auto-Populated Buckets

1

Identify Target &

Sector

After selection of sector, the tool identifies the most relevant material issues for the sector, then indicates mitigating or value-adding strategies, and underlying practices and value drivers

Material Issues (Defined by SASB)	Strategies	Practices	Value Drivers
 Energy Management 	 Improving Energy Efficiency & Use of Renewables 	 Adopt products, services, and processes that use less energy Convert energy purchase (or generation) to renewables where possible 	 Lower energy costs Reduced exposure to energy cost volatility or grid break-downs Reduced regulatory fines and risks



Logic Flow

Navigating the Cover Page



Center for Sustainable Business

NYU GP Sustainability Value Framework Tool

This two-part assessment and strategy tool aims to help GPs and PE practitioners analyze potential portfolio companies performance on material issues and provides guidance on which sustainability strategies and practices can drive financial value for the target company. The tool is intended to be used first during the due diligence phase to gain a high-level assessment of ESGrelated risks and opportunities that can drive improved financial performance, then in the early holding period for material issue prioritization and strategy and KPI development, culminating in strategic inputs and ESG and ROSI (aligned financial metrics) KPIs that can be used to monitor and improve performance during the life of the investment.

4/24/2023

Tab Directory:	
Instructions:	Overview of tool goals and process flow + guidance on how to use tool
Process Map:	Detailed step-by-step outline of the process with associated outcomes and benefits per step; process map visual included
Stage 1 >	
DD Assessment:	First part of value framework tool, model auto-populates material issues, strategies, practices, and value drivers based on "Sector" selection; includes scoring methodology
DD Guidance:	Guidance on how to score target company across six relevant criteria
Ranked Table:	Auto-sorted table of material issues, provides sense check of how target company is performing on "Sector" relevant material issues
Stage 2 >	
Issue Prioritization:	Prioritization of material issues to define top 3-5 to focus on; scoring component across several criteria
Prioritization Guidance:	Guidance on "Issue Prioritization" scoring + list of questions used to prioritize material issues
Heatmap:	Table of outputs from "Issue Prioritization," broken into Upside vs. Downside; included Stage 1 outputs for comparison
Graphs:	Graph outputs from "Issue Prioritization" tab, scatterplots used to pick top 3-5 issues; illustrates Upside vs. Downside
Relevant KPIs:	Sheet pulls from database of relevant KPIs + guidance on how to create relevant ESG & ROSI KPIs
Output Sheet:	Final output sheet containing all info generated from the process, user can develop KPIs and in depth strategies for the final prioritized issues
Backup >	
Strategies & KPIs DB:	Database linking strategies with practices and value drivers + KPI database
SASB DB:	Database of SASB material issues, used for auto-lookups
Weightings:	Weights for DD Assessment scoring
Benchmarking:	List of best-in-class companies by "Sector" - compare target company to relevant best-in-class examples
Company Examples:	Examples of a high-scoring company (Clif Bar) and low-scoring company (Kraft Heinz)
Cover Instructio	ns Process Map Stage 1 > DD Assessment DD Guidance Ranked Table Stage 2 > Issue Prioritization Prioritization Guidance I (+

Instructions

- Appears complex, but the user needs to complete only one tab in Stage 1
- The cover page outlines each of the tabs in the workbook along with a short description of the purpose of each tab
- Each tab belongs to one of two categories, as indicated by the following color-coded arrows:

 Indicates a tab that contains supplemental information that informs other tabs

 Indicates tabs that drive the model and require user input

DD Assessment: Sector Selection

	ABC	D	E	F		G	
1		Value Assessment Model - P	art 1		_		_
3		Yellow Header = User Fills O	ut				
4							
5							
6		Target Company (Fill Out):	Kraft Heinz				
7		Sector:	Food_Beverage	Dropdown List of Sectors			
8		Material Issues	Financials Financials Health_Care Infrastructure Renewable_Resources_Alternative_Energy	ctices		Value Drivers	Curre
9		Step 1: Select "Sector" in Cel	Resource_Transformation Services Technology_Communications	yes, and Value Drivers wil	ll Auto-Popu	late	Step : Deno REMC
10	1 GHG I	1 GHG Emissions	Mitigating Climate Change Impacts	• Reduce emissions across a scopes, focusing on direct e first, but also focusing on w biggest emissions are	all three emissions /here the	 Operational efficiencies in tercosts Reduced exposure to regulate fines and fees Reduced reputational and marisk Lower cost of capital Improved employee recruitmeretention 	rms of Dry Comr • "Acl Progr • "Ear ient and
	2	² Energy Management Cover Instr	Improving Energy Efficiency & Use of Renewables Fuctions Part 1 >	• Adopt products, services, processes that use less ene • Convert energy purchase DD Assessment	and ergy (or Scoring	Lower energy costs Reduced exposure to energy volatility or grid break-downs Ranked Table B	Comr • "Re (per r • "Pro cost Progr • "On enchmarki

Commentary
 User selects 1 of 11 sectors, then the sector's material issues, associated strategies, practices, and related value
 We have kept the analysis at the sector level, but there is potential to go more granular to the industry level (SASB splits out the 11 sectors into 77 sub- industries)
 While SASB's guidance and metrics are more process-focused, it is often the first resource that practitioners turn to, so we used SASB as a starting point

DD Assessment: Manual Scoring

Target Company (Fill Out):	Kraft Heinz	User Research & Scoring								
Sector: Material Issues	Food_Beverage Strategy	Current State / Progress / Growth	Scoring Notes (if Needed)	Current Progress	Clear Targets	Innovation & Growth	Risk Mitigation	Credible Reporting Standards	Mgmt / Org / Board Capabilities	Total
Step 1: Select "Sector" in C	ell E7, then Material Issues, S	Step 2: <u>Manually</u> Input Current Practices and Answer How Target is Employing Denoted Strategy. Use Annual Reports and Other Public Sources. MUST MANUALLY REMOVE ONCE MOVING TO NEW TARGET	Step 3: Score & Weight Curr	rent Practices	Just Input Sco	res of 1-5)				
GHG Emissions	Mitigating Climate Change Impacts	Commitments: • "Achieve Net Zero carbon emissions by 2050, halving same by 2030" Progress: • "Early Stage"	Weak target, vague progress description	1	3	2	2	3	2	2.1

Commentary

- Now, the user researches the target company across the relevant material issues, specifically looking for **stated commitments and progress towards commitments;** user manually inputs findings
- The user assesses (with scores of 1-5) the target company across six criteria: Current Progress, Clear Targets, Innovation & Growth, Risk Mitigation, Credible Reporting Standards, and Management/Organization/Board Capabilities
- The scores are weighted and aggregated to a total score
- OPTIONAL: Model provides option to keep or remove issues to help funnel analysis / remove irrelevant issues in later stages

CSB provides guidance on the six scoring criteria along with relevant questions

Scoring Methodology for DD Assessment

#	Bucket	Description	Questions
1	Current Progress	Target company's current progress and efforts on the material issues	 How is the firm currently performing on the material ESG issues for its sector? Has the firm reported progress over time, and how much? How does this compare to competitors? Leader vs laggard?
2	Clear Targets	Company's defined future sustainability commitments; companies that score well have very specific targets with associated timelines	 Has the firm defined clear ESG targets? Are ESG measurement systems in place and is there a clear plan for managing material issues? Are they reporting useful KPIs that provide a credible view of sustainability performance? Are targets focused on the most material aspects?
3	Innovation & Growth	Target company's approach to the material issues, looking at upside opportunity	 Does the target exemplify innovative thinking around mitigating/answering material issues and the underlying strategies? New product, new geography, new practice?
4	Risk Mitigation	Target company's approach to the material issue, looking at downside risk	 How is the firm performing on material issues from a risk perspective? Are there any trends/incoming regulation that will hurt the target's business case? Proactive vs reactive? What happens if the target company does not mitigate the risk? What is the impact? Financial impact?
5	Credible Reporting Standards	Credible reporting standards include SASB, ILPA, etc.	 Is the target using any industry reporting standards? Is ESG reporting audited by a third party? Is target reporting on the most material issues and across the value chain?
6	Mgmt / Org / Board Capabilities	Management's / Organization's / Board's strengths in enacting a sustainability agenda and processes	 Does management have the capability or resources needed to address the material issue and associated strategy? Does the board have ESG-focused professionals or members with sustainability experiences/skillsets? Is there a board committee with responsibility for ESG strategy and auditing?

DD Guidance

The model automatically sorts and ranks the issues and strategies

Material Issues	Strategy	Current Progress	Clear Targets	Innovation & Growth	Risk Mitigation	Credible Reporting Standards	Mgmt./ Board/ Org. Capabilities	Total (Weighted)	Value Drivers			
Product Design & Lifecycle Management (1/2)	Adopting Sustainable Packaging Solutions	3	4	4	4	3	3	3.6	 Reduced regulatory risk Reduced material and input costs Improved market share, loyalty, premium 			
Employee Health & Safety	Protecting Employee Health and Safety	3	3	3	3	4	3	3.1	 Increased productivity Increased retention Reduced absenteeism Reduced workplace insurance costs Ability to hire the best 			
Waste & Hazardous Materials Management (2/2)	Committing to Zero Waste to Landfill	3	3	3	3	3	3	3	 Operational efficiencies in reduced waste costs Reduced regulatory risks Innovation (to reduce waste generation, will need to innovate on process and products) 			
GHG Emissions	Mitigating Climate Change Impacts	1	3	2	2	3	2	2.1	 Operational efficiencies in terms of costs Reduced exposure to regulatory fines and fees Reduced reputational and market risk Lower cost of capital Improved employee recruitment and retention 			
Water & Wastewater Management	Improving Water Security	2	2	2	2	2	2	2	 Ensure ongoing access to water (no stranded asset) Reduced water use and wastewater disposal costs Reduced regulatory and license to operate risk 			
Energy Management	Improving Energy Efficiency & Use of Renewables	1	2	2	2	3	2	1.9	 Lower energy costs Reduced exposure to energy cost volatility or grid break-downs Reduced regulatory fines and risks 			
Customer Welfare	Protecting Customer Health and Welfare	2	1	3	2	1	2	1.9	 Increased sales/loyalty from changing consumer demand Reduced regulatory and reputational risk 			
Waste & Hazardous Materials Management (1/2)	Reducing the Use of Harmful Chemicals	1	1	1	1	1	1	1	 Reduced chemical costs Reduced regulatory risk Reduced negative health incidents Potential reduction of lawsuits 			

- After the user rates all the material issues, the "Ranked Table" tab sorts the issues from best-performing to worst-performing
- This is intended to serve as a temperature check on how the target company is performing across the spectrum of material issues while highlighting if there are any significant red flags or upside opportunities
- OPTIONAL: Model provides option to remove issues before moving to Stage 2 to help funnel analysis / focus on the most important issues

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The second stage prioritizes the most important material issues & strategies and provides guidance on KPI development

				Dowr	nside			Upside		Other
5	Issue Prioritization	Score add'l criteria; review heatmap and scatterplots to prioritize	Market Risk	Regulatory Risk	Physical Risk	Geopolitical Risk	Revenue Growth Potential	Operational Efficiency	Reputation / Multiple Impact	Investment/Effort Required for Successful Execution

Once the GP owns the target, they need to prioritize the top 3-5 most important material issues with the greatest financial upside; they also need a better sense of the impact of each material issue in the context to the broader market

After prioritizing the top 3-5 issues/strategies, user develops **related ESG and ROSI KPIs for each strategy**; CSB provides guidance and examples

Strategy Development

KPI Development

CSB provides comprehensive output sheet, user develops deeper strategies for the **top 3-5 most important material issues** for the portfolio company

Over time, the GP tracks KPI improvement, thus creating a track record of sustainable improvement and a growth story to be shared at exit

Note: The second stage of the value framework tool is intended to be used <u>once the portfolio</u> <u>company has been acquired, in the first 100 days of the holding period, in order to improve value</u>

Issue Prioritization: Researching and scoring each strategy

Kraft Heinz		Downside													
Material Issues	Strategy	Market Risk	1-5	Regulatory Risk	1-5	Climate/₩ater Risk	1-5	Ge	opolitical Risk 1-5						
		Consumers increasingly expecting sustainably packaged goods (sustainability-marketed products growing 2x faster than conventionally marketed:				Revenue Growth Poter	ntial	1-5	Upside Operational Efficiency	•	1-5 Reputation of Target (Multiple Impact)	1-5	Other Investment/Effort Required for Successful Execution	1-5	Option to Remove Issues (Use Dropdown to "Keep" or "Remove")
Product Design & 1:Lifecycle Management (1/2)	Adopting Sustainable Packaging Solutions	products) • In 2019, Kraft Heinz announced a partnership with Loop Industries to develop and use 100% recycled plastic packaging for some of its products. • In 2020, Kraft Heinz announced a partnership with TerraCycle to create a closed-loop recycling system for its packaging. • Kraft Heinz has also committed to using 100% recyclable, reusable, or compostable packaging by	2	Regulation pushing towards sustainable packaging KH not in danger due to good progress in this facet	2	Significant investments is sustainable packaging solu which have had a positive i potential. Invested in sustainable packaging solutions such as recyclable and compostabl packaging, which has helper reduce their environments impact and increase their r growth potential. Invested in innovative packaging solutions such as "Kraft Singles" packaging, v made from 100% recycled materials and is designed t reduce waste. Committed to reducing th plastic packaging by 50% by	n tions, impact e ed to il evenue s their which is io heir y 2025,	4	Adoption sustainable packa solutions can reduce waste a optimize packaging design KH has implemented a num of initiatives to reduce packa waste, such as using lighter- weight packaging materials a eliminating unnecessary packaging components. • The company has also inves in new technologies to reduc amount of energy and water in the production of packagin materials. Kraft Heinz has partnered w suppliers to develop more sustainable packaging solutio such as using recycled materi and biodereadable packaging	ging id ber jing and eted ethe used g ith ns, als	KH has a strong track record of adopting sustainable packaging solutions and has been recognized for its efforts by investors. In 2019, Kraft Heinz was recognized by the Dow Jones Sustainability Index for its commitment to sustainable packaging solutions. vad21: KH partnerships with the World Wildlife Fund & Sustainable Packaging Coalition to develop a new line of sustainable packaging solutions. Kraft Heinz is investing in research and development	3	Demonstrated a strong capacity for successful execution in terms of adopting sustainable packaging solutions. Likely to continue to partner with organizations to develop and launch new lines of sustainable packaging solutions. Likely to continue to invest in research and development of new sustainable packaging solutions.	4	Кеер

Commentary

- The second part of the framework begins with material issue prioritization as the GP needs to understand the risks and financial upside opportunities of the material issue/strategy in the broader context of the market in order to know where to focus resources
 - Completing this analysis allows the user to compare each material issue/strategy vs. the others

• OPTIONAL: User can remove strategies/issues on this tab in order to focus the following heatmap and scatterplots

Issue Prioritization

Stage 2 includes more expansive criteria, which we group and aggregate into downside and upside buckets

Scoring Bucket	Guidance	Questions
Market Risk	High scores given for: 1) Areas where customers expectations have changed or will change 2) Significant impacts to operations or production processes 3) Significant impacts to availability of financing	 Any changes in economic and social factors affecting demand and supply? Changes in consumer preferences or needs? Availability and cost of financing/insurance? Any impacts to operations and production processes?
Regulatory Risk	High scores given for areas where the target company is not meeting current regulations or if future regulation threatens to impact business operations	 Will the current or future regulatory environment negatively affect the target company? Will the target company be fined or harmed for performing poorly on the material issue?
Environmental Risk	 High scores given for: 1) Significant environmental & climate impacts 2) Impacted availability of land or inputs 3) Impacted performance of existing assets 4) Stranded assets 	 Will environmental factors affect the availability or production of inputs? Will environmental factors affect existing infrastructure or land availability? Will supply chain or distribution be affected?
Geopolitical Risk	Risks faced within a given country including corruption, human rights issues, etc.	 Are there any human rights issues within the country / location of footprint? Is the country/area known for corruption?
Revenue Growth Potential	High scores given for: 1) Large financial opportunity 2) Areas receiving significant investment inflows 3) Opportunity to capture a much larger customer base	 What is the size of the opportunity? Any current investment inflows into that area? Customer expectations? If the target company is performing well, is there additional whitespace to capture?
Operational Efficiency	 Value improvement through stronger, more resilient processes Efficiency leads to a better EBITDA Less resources and required for more output Cost savings due to less waste disposal costs E.g., reuse, upcycling, recycling -> drives lower costs and higher revenues 	 Has the company demonstrated operational efficiencies in the past? Will the selected strategy/issue lead to operational efficiencies?
Reputation / Perception of Target (Multiple Impact)	The multiple on the exit sale is influenced by investor perception of the target: • Company reputation / PR • Innovation & growth	 How will the pursuit of the strategy / mitigation of the risk affect the company's reputation? How does this company demonstrate the capability to innovate?

Upside

Example of material strategy analysis

Improving Water Security (Issue: Waste & Wastewater Management)

Market Risk	 As consumers and stakeholders become increasingly aware of the importance of water stewardship, there is a growing risk for companies that do not take action to address water-related challenges. Failure to improve water security could lead to negative brand perception, as water scarcity and quality concerns are top environmental worries for consumers globally 	4
Regulatory Risk	 The regulatory environment related to water management is increasing globally, and Kraft Heinz may face additional costs and penalties if it does not comply with these regulations Implemented many water-saving practices and technologies across global footprint 	2
Climate/Water Risk	 Kraft Heinz is a water-intensive industry, with water being a primary ingredient in many product; Improving water security can help reduce the company's overall impact on the environment and improve its resilience to climate change, which can help mitigate risks associated with water scarcity, quality, and availability 	3
Geopolitical Risk	 Geopolitical risks related to climate change mitigation are generally increasing, as governments and international organizations take more action on the issue. These risks could impact Kraft Heinz's operations in various regions. 	2
Revenue Growth Potential	 Improving water security can potentially support revenue growth by improving the company's reputation among consumers and stakeholders who prioritize water stewardship Kraft Heinz will also focus on improving water quality in its supply chain by working with suppliers to reduce water pollution. 	2
Operational Efficiency	 Improving water security can lead to operational efficiencies by reducing the company's overall water consumption and wastewater generation. The company has also committed to investing in water-related projects in communities where it operates, such as providing access to clean water and sanitation. 	4
Reputation / Multiple Impact	 Improving water security could potentially have a positive impact on the company's valuation by improving its reputation and reducing long-term operational costs 	2

After completing "Issue Prioritization," user can view new heatmap of most relevant strategies/issues

Issue Prioritization Heatmap

Material Issues	Strategies	Market Risk	Regulatory Risk	Environmental Risk	Geopolitical Risk	Revenue Growth Potential	Operational Efficiency	Reputation of Target (Multiple Impact)
GHG Emissions	Mitigating Climate Change Impacts	4	4	3	2	3	2	2
Product Design & Lifecycle Management	Adopting Sustainable Packaging Solutions	2	2	2	2	4	4	3
Water & Wastewater Management	Improving Water Security	4	2	3	2	2	4	2
Product Quality & Safety	Ensuring Safe Products and Services	3	3	1	2	3	3	2
Energy Management	Improving Energy Efficiency & Use of Renewables	3	3	3	2	1	3	2
Waste & Hazardous Materials Management (1/2)	Reducing the Use of Harmful Chemicals	4	4	3	2	1	2	1
Waste & Hazardous Materials Management (2/2)	Committing to Zero Waste to Landfill	2	2	2	2	2	3	3
Customer Welfare	Protecting Customer Health and Welfare	2	2	1	1	4	3	3
Employee Health & Safety	Protecting Employee Health and Safety	4	2	1	2	2	2	2
Supply Chain Management	Implementing Sustainable Sourcing	2	2	2	2	2	2	2

Note: CSB removed 7 less relevant issues during the "Issue Prioritization" process to better focus on the most important issues / strategies

Bucketing the criteria into upside vs. downside allows the user to examine tradeoffs between strategies

Examining Tradeoffs between Upside vs. Downside Criteria



Issue Prioritization

The provided scatterplot populates with selected strategies; user selects top 3-5 to focus on



- Once the user completes the research and scoring in "Issue Prioritization," they can look at scatterplot visualizations to help examine tradeoffs between material strategies
- The user would likely prioritize 1) high downside, high upside strategies first, then look at 2a) high downside, low upside strategies, and 2b) low downside, high upside strategies

Note: "High Downside" indicates that there is significant risk to the business if the associated strategy is not adopted / enacted

Issue Prioritization

Investment/Effort Required for Successful Execution

OPTIONAL: If further prioritization is needed, the user can assess the level of effort and investment required

Incremental Criteria: "Investment/Effort Required for Successful Execution" (OPTIONAL)

Description	Investment/Effort Required for Successful Execution High scores given for:	Material Issues	Strategies	Investment/Effort Required for Successful Execution
Guidance	1) Lower effort or investment required for successful strategy enaction	GHG Emissions	Mitigating Climate Change Impacts	2
	 2) Existing expense and appende to address the material issue 2) Opportunity is technically feasible 4) Capex/Opex investment has clear path to financial upside or risk mitigation 	Product Design & Lifecycle Management	Adopting Sustainable Packaging Solutions	4
		Water & Wastewater Management	Improving Water Security	4
	5) Other barriers to success can be mitigated	Product Quality & Safety	Ensuring Safe Products and Services	3
	 Does the initiative require capex/opex? How much? What is the time horizon to mitigate or improve on the material issue? What effort level and resources are required for successful strategy enaction? Does management have the capabilities to enact the suggested strategy? Board governance is ESG-focused? Does the company have existing assets it can employ? Any other barriers to success? 	Energy Management	Improving Energy Efficiency & Use of Renewables	3
		Waste & Hazardous Materials Management (1/2)	Reducing the Use of Harmful Chemicals	1
Questions		Waste & Hazardous Materials Management (2/2)	Committing to Zero Waste to Landfill	3
Questions		Customer Welfare	Protecting Customer Health and Welfare	3
		Employee Health & Safety	Protecting Employee Health and Safety	4
		Supply Chain Management	Implementing Sustainable Sourcing	3

After the assessment of the largest upsides & downsides, the logical next step it to assess the level of effort and investment

OPTIONAL: User can review Investment/Effort Required for Successful Execution vs. the total Upside+Downside score

Investment/Effort Required for Successful Execution vs. Total Score Upside vs. Downside



- Anything that falls on the righthand side of the graph requires less investment or effort
- Viewing this scatterplot is completely optional – meant solely to indicate "low hanging fruit" or help prioritize edge cases

Investment/Effort Required for

Successful Execution

After prioritization, user generates sustainability & ROSI KPIs; CSB provides guidance for user-indicated strategies

Associated Material Issue	Associated Strategy (Use Cell Dropdown)	Associated Practices	Example Practice	Sustainability KPI	ROSI Material Factor 1	ROSI 1 Description	ROSI 1 Monetization Example
Water & Wastewater Management	Improving Water Security	 Steward local water sources through watershed management Track and reduce water use Ensure drinking water quality waste water treatment. Reduce non-point source water pollution (e.g. stormwater runoff) 	• Track and reduce water use	 Benchmark current water use throughout supply chain, identify 2030 and annual target for reduction 	Operational Efficiency	Reduced water costs, reduced wastewater disposal cost	Calculate differential of water input costs before and after reduction in water usage (minus CapEx for equipment and/or associated costs for alternative reduced water processes) to achieve avoided cost savings
Product Design & Lifecycle Management (1/2)	Adopting Sustainable Packaging Solutions	 Reduce packaging weight Substitute bio-based packaging Source paper packaging from certified forests Reduce packaging Ensure circularity of packaging 100% recycled material 	• Reduce Packaging	 Type of bio-based material, % replacing conventional packaging by target date 	Operational Efficiency	Companies that follow these practices for materials used in primary/ secondary/tertiary packaging are likely to see changes in packaging costs	Compare quantity of packaging material consumed per unit of end product and multiply quantity by average price of packaging material before and after material replacement. Consider incidental impacts such as higher volume discounts by suppliers due to larger order size, fixed price and or longer term contracts, local sourcing instead of import of material etc.
GHG Emissions	Mitigating Climate Change Impacts	 Reduce emissions across all three scopes, focusing on direct emissions first, but also focusing on where the biggest emissions are Purchasing offsets Investing in climate resiliency 	 Reduce emissions across all three scopes, focusing on direct emissions first, but also focusing on where the biggest emissions are 	 Measure current scope 1,2, 3 emissions level, identify 2030 and annual target reduction 	Operational Efficiency	Cost savings of using fuel economy technologies or practices	Quantify the reduction in fuel usage following the implementation of new technologies or practices. Use current and projected fuel prices to calculate the cost savings, minus the cost of technology/practice implementation
Waste & Hazardous Materials Management (1/2)	Reducing the Use of Harmful Chemicals	 Reduce harmful chemical use Ensure proper employee training and protective equipment Substitute bio-based products 	 Identify, monitor and reduce use of harmful chemicals across value chain 	 Measure current chemical levels, identify substitute, identify 2030 and annual target for reduction 	Operational Efficiency	Reduced operating costs for using less chemical inputs	Calculate differential of chemical input and waste management costs before and after process changes (minus CapEx for equipment and/or associated costs for BAU) to achieve cost savings

User selects strategy from cell dropdown

Relevant KPIs

Output Sheet

Material Issues		Strategy	DD Assessment Aggregate Score	Current Progress	Clear Target	ts Innova Gro	ition & wth	Risk Mitig	gation	Credible Reportir Standare	e Mgn Ng E ds Cap	nt / Org Board abilitie	y/ Practices (15	(Illustrative)		Value	Drivers	c	
Water & Waste Management	ewater	Improving Water Security	2	2	2	2	2	2		2		2	Steward watershee Track an Ensure d water tree	local water d manageme d reduce wa rinking wate itment.	sources throu ent ter use er quality was	e Ensui strandi • Redu dispos	re ongoing access t ed asset) iced water use and al costs	o water (no • m wastewater • m	
	Current St	ate			м	larket Risk	Regul	latory Risk	Clima Risk	ate/Physical	Geopolitical	Risk P	tevenue Growt Potential	h Operation Efficiency	nal Repu Targo Impa	itation of et (Multiple ict)	Capacity for Successful Execution	Competitive Environment	
Commitments: • "Reduce water use intensity by 20% in metric ton of product made" • "Reduce water use intensity by 15% ac metric ton of product made)			n high-risk watersh across our manufact	ed areas by 2025 (turing facilities by	per 2025(per	4		2		2	3		2	2		2	4	2	
	 Progress: "On Trac "On Trac 	k: 12.2%" k: 4.4%"	Example Practice	Sustainabili	ty KPI	ROSI Materia Factor 1	I ROSI 1 D	escription		ROSI 1 Monet	tization Examp	le	F	OSI Material actor 2	ROSI 2 Descrij	otion	ROSI 2 Monetizati	ion Example	
			Track and reduce w use	• Benchmar use through chain, ident annual targ	k current water out supply ify 2030 and et for reduction	Operational Efficiency	Reduced reduced disposal	water costs, wastewater cost		Calculate diffe and after redu for equipment alternative red avoided cost s	rential of wate action in water t and/or associ duced water pro avings	r input c usage (n ated cos ocesses)	costs before minus CapEx sts for) to achieve	lisk Nanagement	Reduced risk o stoppages due water access o for water	f production to lack of r competitio	Calculate estimate disruptions likely t after the installation technologies. Mult by the estimate co sales per disruption calculate the benef increase as overco water resources	d reduction in # of s to occur due to wate on of water efficient ciplied the reduction st per disruption (o n or increase in cos fits *Price of water nsumption and det	supply chai er shortage t n in inciden or loss of sts) to estimated terioration

Commentary

- The "Output Sheet" contains all the research and analysis generated in the model DD Assessment scoring, associated practices, value drivers, Issue Prioritization scoring, and guidance KPIs
- From here, the user can generate more specific KPIs and specific practices to follow
- Once the KPIs are defined, they should be tracked through the lifetime of the holding and used as examples of sustainability improvement at sale

Chapters

1 Learnings from Interview Process

2 Value Framework (Stage 1): DD Assessment

3 Value Framework (Stage 2): Issue Prioritization & KPI Development

4 Next Steps

5 Appendix

Next steps following completion of PE collaboration

Next Steps

• Dissemination of the Value Framework Tool

- Content: Excel tool, associated PowerPoint guidance, website content, whitepaper
- Events: CSB Advisory Board (May 15), Impact Frontiers Guest Expert Session (Jun 1), CERES Working Group (TBD)
- Model Improvements: Variety of improvements can enhance ease of use, dependent on demand
- CSB-hosted PE Conference in 4Q23
- Other PE tools
 - CSB is building out several other tools to encourage sustainability in the PE ecosystem

Fin

Chapters

1 Learnings from Interview Process

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5 Appendix

March / April / May Workplan – Completed



Pending interest, CSB can create a more user-friendly, intuitive version of the Excel in a dashboard format

Stage 1 Click-Through Visualization

- The below link illustrates what the Value Framework tool could look like as a dashboard
- <u>https://www.figma.com/file/ANpQUJpAZF7iYrUGDm4qGm/NYU-ESG-Click-Through?node-id=0%3A1&t=f2J6fnCDBopt1eDt-1</u>

GP Current Practices vs. Best Practices

*indicates best practice

	Deal Sourcing / Pre DD	Due Diligence	Owne	Exit	
			Early Investment	Holding	
Current Practice	 Check company against exclusion list* ESG data request* If Impact focus, sourcing only on specific criteria (e.g., Quality Jobs) 	 Reviewing DDQ, material issues, some ESG KPIs* Deal teams conduct valuation analyses (advanced may add ESG sensitivities) ESG scorecard 	 Outline what KPIs to be tracked* Focus on cost cutting Management team dialogues Outline ESG accountability structures* 	 Track some KPIs (potentially EDCI metrics) Create annual sustainability reports at portco level (SASB material metrics) Send ESG data to LPs 	 Add a sustainability story to sell at exit (often hacked together instead of planned for)
Best Practice	 In addition to the above, Understand the material ESG issues by industry and how that affects potential value drivers (risks and opportunities) 	 Within valuation, clear understanding of ESG material issues, risks, opportunities, and range of outcomes Reviewing DDQ, material issues, some ESG KPIs* 	Determine the most material issues and largest sustainability levers immediately, as well as what KPIs to track allowing capture of the sustainability value story	 Track relevant, bespoke KPIs that will best tell the growth story at exit Link sustainability to financial value throughout period Aggregate KPIs across portfolio companies 	 Sustainability story is natural progression and outcome of early investment actions

LP processes focus on GP selection and reporting

*indicates best practice **GP/LP Defining Internal GP** Initial **GP/PortCo Ongoing LP** Reporting Assessment Strategy Assessment Aareemen Rely on sustainability ESG in investment policy DDQ Most don't do anything reports DDQ assessment model* Collect some ESG data Starting to define what with the data they collect Current • LPA ESG metrics to track ESG scorecard from portcos and GPs (best in class aggregates Side letter Practice Defining owner of ESG (minimal) data from LPs and reports Discussions over 1 yr Often collecting process function period back) data DDQ often not standardized, and often Lack ability to aggregate General lack of LP has limited influence real data instead of GPs and PortCos sending lacking key ESG Limitation / ESG data to LPs but feel sophistication (some on what it can require in questions assessment scores Issues outliers) · Lack of understanding of LPA or side letter No current continuous they aren't looking at it how "mature" GP is on assessment process, sustainability Areas of DDQ addendum that Interest & identifies key ESG Show best in class Define what ESG data is Show best in class Intro guide for LPs questions and assesses Rationale examples? relevant? examples? PE firm sustainability (Where to maturity Prioritize)