The NYU Stern Center for Sustainable Business Framework to Monetize Embedded Sustainability

The frontier for business is embedding sustainability (ESG) in corporate strategy and tracking financial metrics related to sustainability benefits. Our forward-facing vision is: sustainability-related issues are no longer siloed as special projects or limited to efficiency-related sustainability efforts. The monetary value of embedded sustainability is tracked comprehensively. The full range of costs and benefits, including intangibles, are quantified and monetized. When sustainability is fully monetized in business terms, uncertainty diminishes, and this will transform, shape, and drive business and societal benefits.

Problem: Sustainability investments have grown partially because businesses have been able to obtain operational efficiencies, reduce risks, and save money. However, companies can reap a host of additional benefits through transformative sustainability strategies such as improved employee recruitment and retention, greater product or process innovation, more loyal suppliers and customers, among others, that positively affect the financial bottom line. Even when companies set environmental, social, and governance (ESG) targets and improve ESG performance, they often fail to translate their measures of ESG performance into monetary results. If companies cannot build a more comprehensive business case, sustainability is likely to remain an add-on activity across the business, and the full value of embedded sustainability will not be realized.

Desired Outcomes: At the Stern Center for Sustainable Business (CSB), we are developing a suite of tools that will help companies identify, quantify, and monetize the benefits of sustainable practices. Our goal is for CFOs and investors to use the CSB methodology to develop metrics that allow them to better integrate, track, and report on corporate financial performance (CFP) arising from embedding ESG into business practices. This will improve managerial decision-making on sustainability issues as well as provide more actionable information to investors.

Method:
First we reviewed academic and corporate research to understand which factors drive positive financial performance when a company embeds material sustainability factors in their corporate strategy. We argue that when a company embeds sustainability in its strategy and practice, this drives financial and stakeholder benefits (Whelan and Fink 2016). Once these benefits are operationalized for a specific company, they can be monetized through a variety of accounting methods. We can apply this framework to any sustainability initiative or industry. The method can be used to assess benefits in a value chain and at the firm level. We can apply this method retroactively, in other words to sustainability/ESG practices that have been already implemented, as well practices that are being contemplated, and project the financial benefit currently or into the future. We can use publicly available information on the industry and the company as well as interview key executives on their corporate and sustainability strategy to understand drivers of financial benefits that have accrued from those changes.

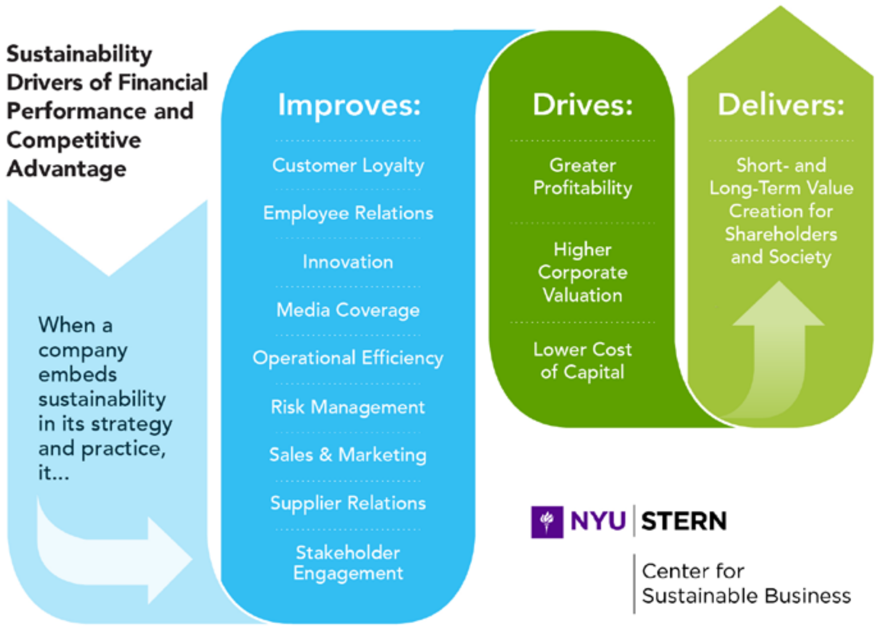

Figure 1. When companies embed sustainability this influences a suite of mediating factors that drive financial benefits for businesses and society, which can be quantified and monetized.

Companies with embedded sustainability may be characterized by indicators such as: 1) systematic and on-going assessment of company-specific material ESG factors and stakeholder interest, 2) organization-wide sustainability/ESG targets or Key Performance Indicators (KPIs), 3) public reporting on KPIs/sustainability targets and third-party auditing progress towards KPIs/targets 4) employee accountability and incentives supporting the sustainability targets, 5) sustainability commitments informing capital allocation decisions, 6) a long-term ESG strategy with robust, on-going engagement of key stakeholder groups and 7) active engagement with investors around a long-term, sustainable management strategy.

Sustainability Drivers of Financial Performance

The NYU Stern Center for Sustainable Business framework has four steps.

1) <u>Identify material sustainability practices</u>. The adopted or potential material sustainability practices are identified. We can assess material ESG factors relevant for the company based on SASB, GRI, the company's own assessment, and the sustainability practices implemented or contemplated by the company. For example, a specific practice for a chocolate brand may to source deforestation-free palm oil.

2) <u>Determine the potential benefits that might drive financial and societal value from sustainability-focused practices</u>. The benefits on figure 1 include better risk management, more innovation, higher operational efficiency, greater customer loyalty, improved supplier relations, better employee relations, improved sales and marketing, better media coverage, more value-

added stakeholder engagement. Depending on the sustainability strategy, different benefit drivers will be relevant. For example, sourcing deforestation-free palm oil for the chocolate company should lead to lower reputational risk, as well as higher operational efficiency for the palm producers if they follow sustainable practices.

3) Quantify benefits derived from the sustainability practices. Each benefit is company-specific and has to be quantified. For example, for the deforestation-free palm oil, this might lead to x more tons of palm oil produced annually because changes were made to improve the soil instead of planting palm trees in another location after the soil is depleted; less slash and burn agriculture might save of x tons of greenhouse gases annually; producers may see x% increase in productivity; employee satisfaction may increase x% after the deforestation-free commitment; and x positive news reports about the company's deforestation-free commitment may be published.

4) Derive a monetary value for the benefits. When companies do monetize benefits, it is generally for additional sales or operational efficiencies because there is a tangible improvement to measure, e.g. reduced energy use = $xx per KW saved. For less tangible applications, we will need to build a monetization process. The accounting method to monetize the benefit may include a suite of methods, and may change based on the type of benefit and available data. To obtain this information, different functional teams within a company are interviewed (i.e., finance, operations, sustainability, HR) to collect data. In cases where there are no data to monetize benefits or assumptions, estimates can be developed from the literature. An example of tangible data could be cost reduction derived from higher efficiency of input use (seeds, feed and fertilizers) through better management. We calculate the change in actual input expenditures before and after the uptake of improved practices (while subtracting costs of the changed practices). More abstract concepts, such as talent retention, can be calculated by assessing costs associated with turnover (new training operations), weighted by probability. Uncertain benefits can be weighted by probability to reflect an expected NPV and can be calculated within ranges. In our deforestation-free palm oil example, we can value the increase in profits from more palm oil produced, estimate the value for the tons of greenhouse gases on the global carbon market, estimate the monetary value of an improved employee retention rate because there is more job satisfaction, and estimate the monetary value of positive new reports (e.g. what would the coverage have cost the company to buy?).

Conclusion:

Today most of the value of a company is in intangible assets—its IP, brand, reputation, etc. Yet accounting as an industry is better suited for valuing capital assets, rather than intangible ones. Some sustainability benefits, such as cost savings, or increased sales fall under current accounting principles and can be easily tracked. Others related to risk, innovation, customer, supplier and employee loyalty, and better media coverage are more intangible and require more sophisticated monetization approaches. However, developing those approaches are necessary, if management and investors are to engage in thoughtful decision-making, based on a full understanding of the financial benefits of sustainability.