

A photograph showing several business professionals in a meeting room. They are gathered around a glass table, looking at and pointing to various documents and charts. The charts include pie charts, bar graphs, and line graphs. The setting is a modern office with large windows in the background.

# Quantifying Value Created From Private Equity ESG Initiatives

THE KROLL CREATED VALUE ATTRIBUTION  
WHITEPAPER SERIES<sup>1</sup>

Fourth in a Series

By George Pushner, Ph.D., and P.J. Viscio

Environmental, social, and governance (ESG) factors have become a significant and a continued focus for investors. According to Prequin, 1,600 private capital funds have been closed by ESG-committed GPs since 2015, and this has raised \$1.69 trillion of capital.<sup>2</sup>

The focus on ESG may or may not correlate with value for investors, however. There is a large body of literature that addresses whether a focus on ESG (or ‘responsible’) investing helps or hurts returns. We do not address that complex issue here, but instead we hope to provide insight on how to measure the value creation impacts from specific ESG activities at the individual company level.

1. 1st: <https://www.duffandphelps.com/insights/publications/valuation/measuring-organic-deleveraging-in-created-value-attribution-analysis>  
2nd: <https://www.duffandphelps.com/insights/publications/valuation/measuring-alpha-for-private-equity>  
3rd: <https://www.duffandphelps.com/insights/publications/valuation/whitepaper-series-value-preservation-age-of-covid-19>

2. “ESG Goes Mainstream in Private Capital,” Prequin Ltd., August 2020.

A wealth of ESG metrics and data have proliferated from well-known non-governmental organizations (NGOs) and commercial data providers. Many widely utilized metrics attempt to measure value to society and are inherently non-financial, but as investors seek to determine whether ESG activities have enhanced financial returns, a number of financial measures are now included.

It is apparent that both traditional and financial metrics suffer from a lack of standardization and transparency in reporting.<sup>3</sup> But even more problematic, at least from our perspective, is that they do not measure or identify value creation from an investor's perspective.

While at least two papers do address ESG and value creation, we believe these efforts are incomplete as they 1) do not measure or incorporate impacts on the risk of the firm, and 2) appear to lack integration of the various financial impacts with the costs of the ESG initiatives.

Value creation from ESG initiatives can be measured, however, and we suggest a more comprehensive framework for measuring ESG value creation that builds on the Kroll Created Value Attribution (CVA) Framework ("the Kroll CVA Framework", fka the Duff & Phelps CVA Framework).

We also note, however, that many aspects of ESG policies and initiatives are important, but inherently difficult to quantify and the Kroll CVA Framework lends itself more readily to certain aspects of ESG than others. For example, the quality of governance policies is difficult to quantify, but likely to be an important factor in evaluating an ESG program. The analysis of ESG efforts is a rapidly evolving field with many aspects, and while the Kroll CVA Framework offers a major advancement in terms of measuring value creation, the measurement of ESG impacts remains a key challenge in many areas.

This paper begins with an overview of widely utilized and financial metrics and the challenges they pose to investors. We then explore efforts to identify ESG-driven value creation more directly, and the limitations that we observe in this regard. Finally, we show how value creation attributable to ESG initiatives can be measured through the Kroll CVA Framework.

## The World of ESG Metrics

There are a large number of both ESG metrics and ESG data providers that compete for the attention of investors and other interested parties. According to the Global Initiative for Sustainability Ratings, back in 2016 there were more than 125 ESG data providers.<sup>4</sup> As a sample of the metrics, we can look at those provided by MSCI, where we find 56 non-financial metrics that cover areas such as climate change, natural capital, pollution and waste, human capital and corporate behavior.<sup>5</sup> Within these categories the metrics cover risk exposures, controversies and performance. But the metrics only provide a simple flag of negative, neutral, or positive and therefore do not assess the magnitude of any impacts.

3. See "The ESG Data Challenge," State Street Global Advisors, March 2019.

4. State Street, *op cit*.

5. "MSCI ESG Metrics," MSCI.COM



Gaining insight from the data above is further complicated by a lack of standardization and transparency across providers. State Street observes that “the lack of standardization and transparency in ESG reporting and scoring presents major challenges for investors... it’s important for asset owners and managers to understand the inherent limitations of this data, as well as the challenges of relying on any one provider.”<sup>6</sup>

Furthermore, ESG metrics have to date delivered limited, if any, value to investors in terms of assessing financial impacts from ESG initiatives. “Because they were not designed to measure financial value, ESG metrics have proven ill-suited to helping investors discern the financial impact of companies’ ESG performance.”<sup>7</sup> While the existing data and metrics may provide some useful information in terms of flagging risks and the directions of ESG impacts, they typically do not provide financial information and are difficult to interpret and score.

## Measuring ESG value creation

As we seek to measure ESG value creation, it is important for us to first define such. We assess and attribute created value in the realm of private equity through the lens of the change in enterprise value of the portfolio company (which in our view is the first step in assessing whether value has been created through ‘building better businesses’). In the context of ESG, an initiative can increase the enterprise value of the portfolio company by increasing revenue and/or EBITDA, reducing risk, and so forth, and reduce the enterprise value through higher operating costs. Ultimately the balance sheet impacts of ESG driven capital expenditures must also be reflected, whether financed by cash, debt or equity.

In this light, we are aware of two recent papers that endeavor to bridge ESG data metrics and value creation.

The first is a 2017 paper in the *Journal of Environmental Investing*.<sup>8</sup> Glassman et al. propose an investor-oriented conceptual framework and methodology for producing company-specific ESG value creation metrics. The framework is cash flow oriented and consists of three steps:

1. The development of an ESG strategy that identifies value creating opportunities, upside potential, and downside risks across the entirety of the company’s operations and industry value change;
2. The identification of the mechanisms by which each initiative drives cash flow; and
3. Selection of operational ESG value creation metrics that can convey the impact of the ESG strategy on financial performance and health.

For example, a strategy to reduce employee turnover via ESG-focused measures may aim to reduce costs and improve margins, but such marginal improvement may be difficult to measure. And so instead the company will focus on metrics such as the comparison of ESG-engaged turnover rates with averages, and levels of workforce pride, and job satisfaction as measured by employee surveys.

6. State Street, *op cit*.

7. Glassman, Diana; Matthew Potoski, and Patrick Callery, “Missing Metrics that Matter to Investors: How Companies Can Develop ESG Financial Value Creation Metrics,” *Journal of Environmental Investing* 8, no 1, 2017.

8. Glassman et al.

While this framework is a logical approach where cash flow impacts cannot be measured directly, by relying on indirect measures it ultimately can only provide indirect indications of value creation rather than a direct measure.

The second paper is a recent article in the *McKinsey Quarterly*, which moves substantially closer to what we believe is the right approach. Henisz et al<sup>9</sup> posit that ESG links to cash flow in five important ways:

1. Facilitating top-line growth
2. Reducing costs
3. Minimizing regulatory and legal interventions
4. Increasing employee productivity
5. Optimizing investment and capital expenditures

We agree that these factors capture much of the main routes for ESG initiatives to influence cash flows. However, we would propose to refine this list as follows:

- a) We agree that improved governance can improve investment and capital expenditure decisions (point (5)), although this is likely to be extremely difficult to measure as we typically do not know what decisions or strategy would have been pursued in the absence of the improved governance. We would instead propose that such governance impacts can be better measured by the impact on the multiple of the firm (typically Total Enterprise Value/ EBITDA), which in turn can be broken into two key areas – future growth expectations (which we refer to as “growth profile”) and impacts on risk and the cost of capital.<sup>10</sup> (These impacts on the multiple are explained further in the following section)
- b) We would prefer to simplify the list to note that the impacts of points (3) and (4) should ultimately be observable either in revenue growth and cost or margin impacts identified as points (1) and (2) or through impacts on the multiple through growth profile and risk/cost of capital (see (a) above).
- c) The operating costs and capital expenditures of the ESG initiative must also be included.

Thus, we would recharacterize the five key ESG value creation drivers as follows:

- Revenue enhancement
- Cost savings/margin improvement
- Growth profile enhancement
- Risk reduction
- Costs of the ESG initiatives

9. Henisz, Witold; Tim Koller, and Robin Nuttall, “Five Ways that ESG Creates Value,” *McKinsey Quarterly*, November 2019.

10. Henisz et al do discuss ESG impacts on risk and reference several papers on this topic but they do not include risk in their five links to value creation.



## Quantifying ESG-Driven Value Creation Through the Kroll CVA Framework

The traditional framework (often called the ‘Value Bridge’) for private equity value attribution relies on three factors: 1) Change in EBITDA, 2) Change in the Multiple (of TEV to EBITDA), and 3) Change in Net Debt. The Kroll CVA Framework first goes beyond the basic Value Bridge to separate revenue and margin impacts, and macro cost of capital impacts from expected growth. The Framework then integrates benchmarking and the isolation of add-on acquisitions, and ultimately segregates performance into four sources: industry/sector, capital markets/Beta, deleveraging and Alpha.

The Kroll CVA Framework, in our view, represents the leading candidate for an industry standard for robust created value attribution analysis and the more meaningful measurement of Alpha for private equity investments. As such, the methodology behind the Framework has been made fully transparent and detailed in our whitepaper on the Framework.<sup>11</sup> It is also fully described in the Insead GPEI study entitled “Value Creation 2.0,”<sup>12</sup> and is highlighted in a recent video on private equity value creation by Steven Balaban of the University of Waterloo and the University of Toronto.<sup>13</sup>

It is a logical and straightforward step to utilize the Framework to measure value creation from ESG initiatives. The net impact on created value is simply the sum of the ESG value creation drivers discussed above.<sup>14</sup>

We show schematically below how this analytical Framework builds on the Value Bridge:

**Figure 1: Building on the Value Bridge to Measure ESG Value Creation**



As described earlier, the value drivers from an ESG initiative should fall into the categories depicted above, and if this can be measured the resulting impact on value is straightforward.

As an illustrative example, let’s suppose a car rental business changes its entire fleet of 100,000 vehicles from non-hybrid to hybrid. Prior to the change, the company had LTM revenue of \$1 billion, EBITDA of \$100 million, no debt and an estimated fair value of equity of \$1 billion. They found that the change increased annual revenue (beyond industry growth) by 4% due to customer preferences for greener cars and higher rental rates, with half of the increase from higher market share and half from higher pricing. While the cars are more efficient, the reduced fuel costs went primarily to customers, but margins did increase by 200 bps due to the higher pricing they were able to command.

11. Created Valuate Attribution: Assessing How Value is Created in Private Equity Investments, <http://www.duffandphelps.com/expertise/publications/pages/NewslettersDetail.aspx?list=Newsletters&ItemID=154>  
 12. “Value Creation 2.0: A Framework for Measuring Value Creation in Private Equity Investment,” INSEAD Global Private Equity Initiative, February 2016.  
 13. [Value Creation](#)  
 14. This should be done on a present value basis but as a start we can simply look at the sum of the associated cash flows.

And they estimated, based on the valuation multiples for green rental businesses vs traditional rental companies, that their valuation multiple increased by 0.5x reflecting an increase in growth profile resulting from the initiative. No changes were expected or observed for the risk of the business, but the change did entail a capital cost of \$2,000 per vehicle. And while car resale costs did increase, this was essentially offset by higher replacement costs for future hybrid purchases, and so the capital cost appeared to be a one-time expenditure.

**So, what is the full value impact of this ESG initiative?**

Revenue Enhancement	\$40 million (\$40 m annual revenue impact times current 1.0x revenue multiple)
Margin Improvement	\$208 million (change in EBITDA of \$20.8 m {based on \$1,040 m revenue x 200 bps margin increase} times original EBITDA multiple of 10.0x)
Growth Profile	\$62.4 million (post initiative EBITDA of \$124.8 m times 0.5 x increase in EBITDA multiple)
Costs of Initiative	-\$200 million (100k cars times \$2,000 per car)
<b>Total ESG Initiative Value Creation</b>	<b>\$110.4 million</b>

While our example is relatively simple, it illustrates the multiple components of ESG value creation. And note that if we leave out any of these components, the interpretation of the value impact of this initiative would be very different.

## Integration of ESG Value Creation with the Kroll CVA Framework

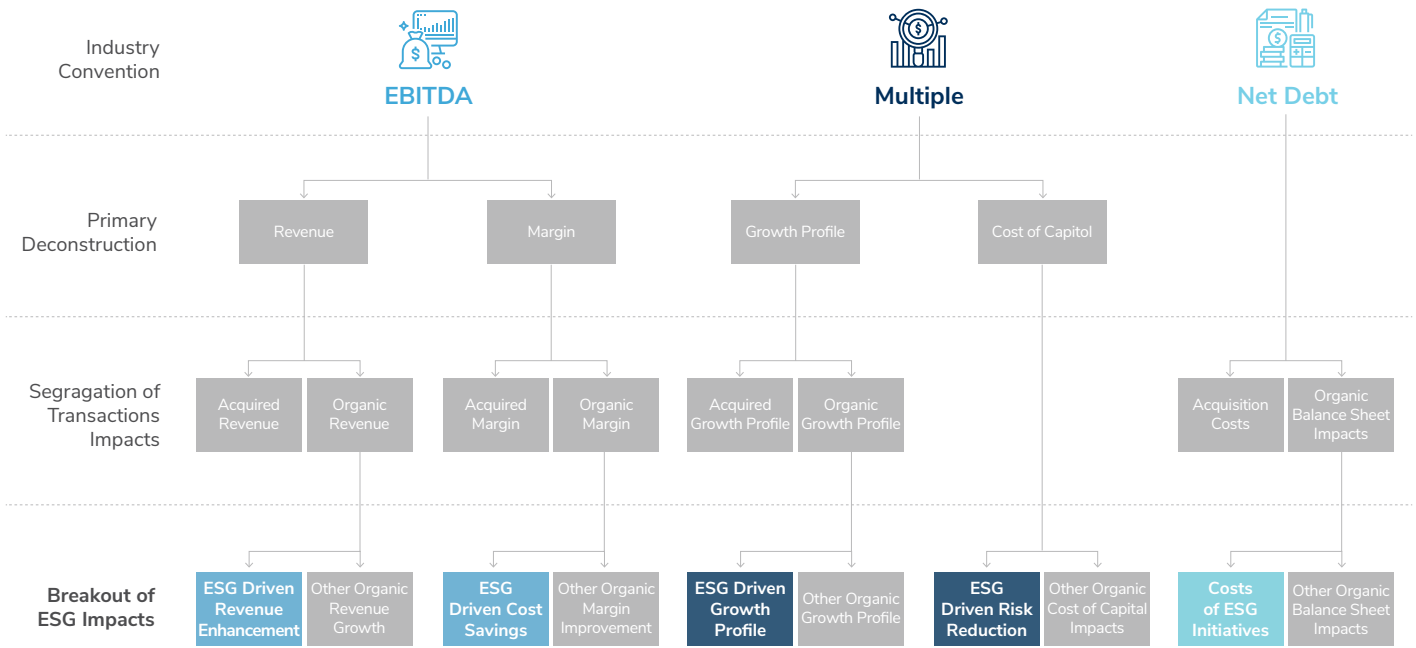
This ESG value creation analysis can then be integrated with a comprehensive CVA analysis to identify both ESG value creation and other organic value creation.

As depicted below, the Kroll CVA Framework analysis begins with the Value Bridge and then separates revenue and margin impacts and macro cost of capital impacts from growth profile impacts (on a risk adjusted basis). The CVA Framework then adjusts for the purely transactional impacts relating to add-on acquisitions, which then isolates the organic impacts of revenue, margin, growth profile and changes in balance sheet components. And after separating the ESG value drivers identified above, the Kroll CVA Framework identifies the breakout between components of ESG value creation and other organic value creation.<sup>15</sup>

Thus, we can build on the Value Bridge to directly measure ESG value creation, and with the incorporation of the full CVA Framework, we can provide this identification of ESG value creation within the context of other organic value creation. Ultimately, we can identify both ESG value creation and other organic value creation or Alpha, and therefore add new meaning and detail to the assessment of GP value add.

15. Note that we do not include benchmarking of industry/sector impacts here as we do not believe it is currently feasible to estimate industry/sector ESG value creation.

Figure 2: Incorporating ESG Value Creation into the Kroll CVA Framework



## Conclusion

ESG has become a large and growing focus for investors, but it remains very difficult to measure ESG success, especially in terms of value creation. There are many ESG metrics provided by a number of well-known data providers, but these metrics suffer from both a lack of standardization as well as transparency. And from a more fundamental investor’s perspective, they do not measure or identify value creation.

To truly measure ESG value creation, it is necessary to quantify the financial impacts of ESG efforts in terms of current and future revenue growth, margin improvement, risk and the cost of capital. And then these financial impacts should be integrated with the cost of the efforts.

The Kroll CVA Framework provides unique insight into value creation due to its granular analysis of value drivers, and it is easily enhanced to integrate ESG financial impacts and measure ESG value creation. Moreover, it does not rely upon forecasted financial information for ESG initiatives nor estimates of required rates of return. Additionally, it is built upon the traditional Value Bridge with which the limited partner community is familiar.

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## CONTACT

### **PJ Viscio**

Managing Director  
pj.viscio@kroll.com

### **George Pushner, Ph.D.**

Director  
george.pushner@kroll.com

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