VALUESCOPE
Measure | Defend | Create

ESG Valuation Considerations - Top Down or Bottom Up?

Executive Summary

Issue: *The term Environmental, Social & Governance, commonly called "ESG," is not a new concept. It was a hot topic before the COVID pandemic, in discussions to measure and value how companies engaged in sustainable and societally beneficial activities. It will return as a topic across the business, regulatory, and investment communities again soon.*

Challenge: *The challenge is that it is difficult to value things that are not clearly defined and measured, with some sort of consensus.*

Solution: *Valuation work associated with ESG might be relatively new, but the techniques and tools necessary to perform ESG valuation exist already. Intangible asset valuation concepts can and should be applied to unique ESG cash flows. This work can be used to reconcile and support an adjustment to the CAPM, then the WACC, via Alpha and Beta. We know ESG is important and valuable, but it will be even more valuable when it is clearly quantified and valued using conventional and customary approaches.*

It started sometime last year, during the fourth quarter. The morning business show Squawk Box began to mention "ESG" on a daily basis. Sometimes it was one of the hosts, sometimes it was a guest. Then there were two inflection points that marked a higher level of discourse. First, on December 17th, 2019, SEC Commissioner Hester Peirce went on live television to call for greater oversight of how ESG is used by companies and the investment community. *"The notion that we can come together and we can get our regulator to focus on an amorphous set of qualities other than the long-term financial value of a corporation, I think we're fooling ourselves,"* she said that day on CNBC's Squawk on the Street. By that time, more than $17 billion had been invested into sustainable-focused ETFs and open-end funds during 2019. In 2018, the number was about $5 billion.

"The first issue is that we don't even know what ESG means," Peirce continued. As more and more ESG investing happens, there will be more and more scrutiny as to how a fund defines its ESG qualifications. Pierce added *"Not only is it difficult to define what should be included in ESG, but, once you do, it is difficult to figure out how to measure success or failure."*

The second inflection point was triggered by the "Fundamental Reshaping of Finance" open letter to CEOs on January 14, 2020, by Blackrock Chairman and Chief Executive Officer Larry Fink. "In a letter to our clients today, BlackRock announced a number of initiatives to place sustainability at the center of our investment approach, including: making sustainability integral to portfolio construction and risk management; exiting investments that present a high sustainability-related risk, such as thermal coal producers; launching new investment products that screen fossil fuels; and strengthening our commitment to sustainability and transparency in our investment stewardship activities."[1]

1 https://www.blackrock.com/corporate/sustainability

While we might not have an answer right now about the regulatory aspects of ESG reporting, this paper will introduce analytical methods for providing valuations of ESG performance. Our framework is objective and designed to serve all constituents. But even before we get to that, there are two essential steps that must be completed first. Before you can value something, especially something that is intangible, you have to define it. After it is defined, it must be measured in a way that is transparent, auditable, and objective. Finally, the valuation should utilize vetted, established, and customary valuation techniques and metrics that have been used to value businesses and assets for decades. There is no need to "reinvent the wheel." We can value ESG assets and their impact on a business today. By using techniques that are already accepted in the valuation community, it will not matter which body ultimately sets the standards. **Regardless of whether it is the FASB, the SEC, the AICPA, the ASA; getting in front of this now will create a first-mover advantage. By focusing now on ESG, companies have the opportunity to affect current shareholder value.**

What does this really mean? Environmental, Social, Governance or "ESG," is a term very few had heard of even two years ago. Today ESG is not only a dominant topic of discussion across the American business and investment community, it is driving business decisions, impacting corporate structures and organizational charts and it is having a profound impact on investment decisions. The recent global pandemic and economic crisis has not slowed down the drive by companies to establish ESG programs and report ESG metrics, it has accelerated it, as companies seek ways to attract investment capital and demonstrate rigorous ESG risk management in their organizations.

But what has remained elusive for businesses and investors has been a way to quantify the actual and potential risks, losses, benefits, and rewards associated with ESG decisions. The missing piece, the way to tie ESG to valuation, has been the problem facing corporate leaders and Boards, who, for good reason, tie every decision to value creation. They have a fiduciary duty to do so. How do you justify making substantial investments and fundamental changes to corporate structures and culture without empirical evidence that it will make a direct impact on shareholder value, total shareholder return, net present value, and individual rates of return? What about stock price?

These are fair questions. Do ESG programs impact firm value? If they do, how exactly can the valuation impact be measured? What will need to be addressed by regulators that could allow this valuation impact to be reported? Will ESG assets be recorded on balance sheets one day soon, just as intangible assets such as goodwill and intellectual property are recorded today?

Valuation

As ESG issues are increasingly impacting the financial performance of companies, there has been little agreement on how they impact valuation. Moreover, financial data such as accounting statements often do not provide the level or type of information needed to make sure the above objectives are appropriately considered. Such considerations inevitably lead to one central question: how do analysts or objective observers assign a proper valuation to a specific company, adjusted for ESG metrics?

The good news is that now that ESG has become more mainstream, ESG metrics used in conjunction with more traditional financial metrics is making it easier to assess the ESG profile of a company, including its overall impact on valuation. For some C-Suite management teams and Board room executives, having the ability to assess valuation enhancements through specific ESG criterial becomes the most critical factor in deciding whether that company decides to implement an ESG program at all.

The first iterations of ESG metrics and investment criteria took a blunt and mundane approach to sustainable investing, by excluding controversial factors and issues or by aiming to deliver a particular benefit or impact. That is not necessarily the case anymore. Now that ESG has become more mainstream, just over the last 18 months, metrics have become more sophisticated and often make quantitative assessments in understanding what those metrics means. It is now possible to apply ESG considerations across a company's activities and to quantify a defendable valuation of the ESG impact.

More and more work is being done on the valuation aspect of ESG. Two important papers use a top-down approach. "ESG in Equity Analysis and Credit Analysis" was published in 2018 by the PRI, the Principles of Responsible Investment arm of the UN, and the CFA Institute.[2] Less than a year ago "Foundations of ESG Investing: How ESG Affect Equity Valuation, Risk, and Performance" was published in the Journal of Portfolio Management.[3] Both papers, and there are others, proceed down a path that identifies quantified value enhancements at the company level from ESG programs. They are top-down and address this issue from the perspective of risk. They combine elements of the Income Method, which is cash flow based, and the Market Method, which is based on comparative analysis. These approaches can be distilled into one central concept: **adjusting the discount rate.**

Obviously the lower the discount rate, the higher the valuation, all other items held constant. Adjustments to Beta can accomplish this. Beta measures systemic risk, and the performance of a company as compared with a broad index like the S&P 500 or the Russell 2000. There are also methods to use Beta to assess a private company, if the Guideline Public Companies selected for the analysis, the "comps," are chose properly. For example, in a recent valuation we completed, the mean unlevered Beta of a group of 10 comps was 0.58. The re-levered Beta for the private company we were valuing was 0.56. But absent an assessment of the ESG components and metrics of the 10 comps, one by one then taken against the S&P 500, there was no way to adjust the Beta with adequate support.

Using Alpha, however, it could be done. Alpha is an adjustment made to the Capital Asset Pricing Model ("CAPM") as part of the calculation of the Weighted Average Cost of Capital, or "WACC." Alpha is unsystematic risk, unique to the firm undergoing valuation. It is here that a specific adjustment can be made for ESG value. As shown below, if the aggregate fair value of the company's ESG program is 150 basis points, then the Alpha is reduced from 5% to 3.5%. The valuation increases from $263.9 million to $271.5 million, implying that the hypothetical

2 *ESG in Equity Analysis and Credit Analysis," Matt Orsagh, Justin Slogett, and Anna Georgieva, UN-PRI and the CFA Institute, 2018.*
3 *"Foundations of ESG Investing: How ESG Affect Equity Valuation, Risk, and Performance," Guido Giese, Linda-Eling Lee, Dimitris Milas, Zoltan Nagy, and Laura Nishikawa, the Journal of Portfolio Management, Volume 45, Number 5, July, 2019.*

ESG program is worth almost $8 million.

Assumptions:			Assumptions:		
Valuation Date		2/13/2020	Valuation Date		2/13/2020
Stock Price Date		2/13/2020	Stock Price Date		2/13/2020
Risk-free Rate of Return	Rf =	3.0%	Risk-free Rate of Return	Rf =	3.0%
Long-term Equity Risk Premium	Rp =	6.0%	Long-term Equity Risk Premium	Rp =	6.0%
Size Equity Risk Premium	Sp =	5.4%	Size Equity Risk Premium	Sp =	5.4%
Country Risk Premium	CRP =	0.0%	Country Risk Premium	CRP =	0.0%
Unsystematic Risk Premium	a =	5.0%	Unsystematic Risk Premium	a =	3.5%
Pre-tax Required Rate on Debt	i =	6.7%	Pre-tax Required Rate on Debt	i =	6.7%
Effective Tax Rate	t =	26.0%	Effective Tax Rate	t =	26.0%
Debt as a % of Total Capital	D =	10.0%	Debt as a % of Total Capital	D =	10.0%
Equity as a % of Total Capital		90.0%	Equity as a % of Total Capital		90.0%
Indication of Fair Market Value of Equity per:					
Income Approach:					
Discounted Cash Flow Method '000's		$263,918			$271,596
Difference					$7,677

But how do we support the adjustment to Alpha? The time has come for ESG to be an asset that can be defined, measured, and valued. According to the CFA Institute, *"Intangible assets are increasingly critical to corporate value, yet current accounting standards make it difficult to capture them in financial statements. This information gap can affect valuations for the worse."*[4] The authors were not even referring to ESG Intangible Assets, or the potential for the identification and separation of ESG intangibles in the near term. Their article provides and overview of intangible asset valuation and its challenges.

Intangible assets lack physical substance but are not financial assets. According to the International Glossary of Business Terms, intangible assets are, *"non-physical assets such as franchises, trademarks, patents, copyrights, goodwill, equities, mineral rights, securities and contracts (as distinguished from physical assets) that grant rights and privileges, and have value for the owner."*[5] Brand can be an intangible asset as well, and the value of a brand can be enhanced if the brand is associated with ESG programs. The problem is that US GAAP only allows intangible assets to be recorded in a balance sheet if they have been acquired. But regardless if or of when this might change, the valuation techniques that are used to value intangible assets can be used to value the impact of ESG on a company's total value.

There are several methods that can be used to fair value intangible assets, and we will look at five here. The first is the Relief from Royalty Method, or RRM. With this technique, value is calculated by using hypothetical royalty payments that would be avoided by owning an asset rather than having to pay for it via a license. We use the RRM most of the time to perform valuations of trade and domain names, trademarks, software, and certain types of R&D. It is

4 ***"The Intangible Valuation Renaissance: Five Methods, "Antonella Puca, CFA, CIPM, CPA and Mark L. Zyla, CFA, CPA/ABV, ASA, CFA Institute, January 11, 2019.***

5 *https://www.nacva.com/content.asp?contentid=166#terms_i*

unlikely that RRM can be used to value ESG at this time, as there is not enough data available yet to isolate what a real royalty rate might be for that can be tied to a specific revenue stream and where data on royalty and license fees from other market transactions are available.

The Multiperiod Excess Earnings Method, ("MEEM") has more promise. It is an income approach, using discounted cash-flow analysis. But instead of using the whole entity's cash flow, with the MEEM we will isolate the cash flows that we can prove are driven by specific ESG factors. Usually the MEEM is used for an intangible asset that is the main driver of a company's valuation, but that does not have to be the case. We often use it for customer and client related assets, but again, ESG is a new area of study and the MEEM should not be ruled out.

A third approach is called "with and without," or the Differential Income Method. With this technique we value the company, and then revalue it with any and all ESG related factors removed. The difference in fair value equates to the fair value of the ESG program or assets.

Real Options modeling can also be used to value intangible assets and is most often a technique that lends itself to value that will accrue in the future, with some uncertainty. For example, patents might have no value today, but could be very valuable in the future if developed. Pharmaceutical intangibles are often analyzed this way.

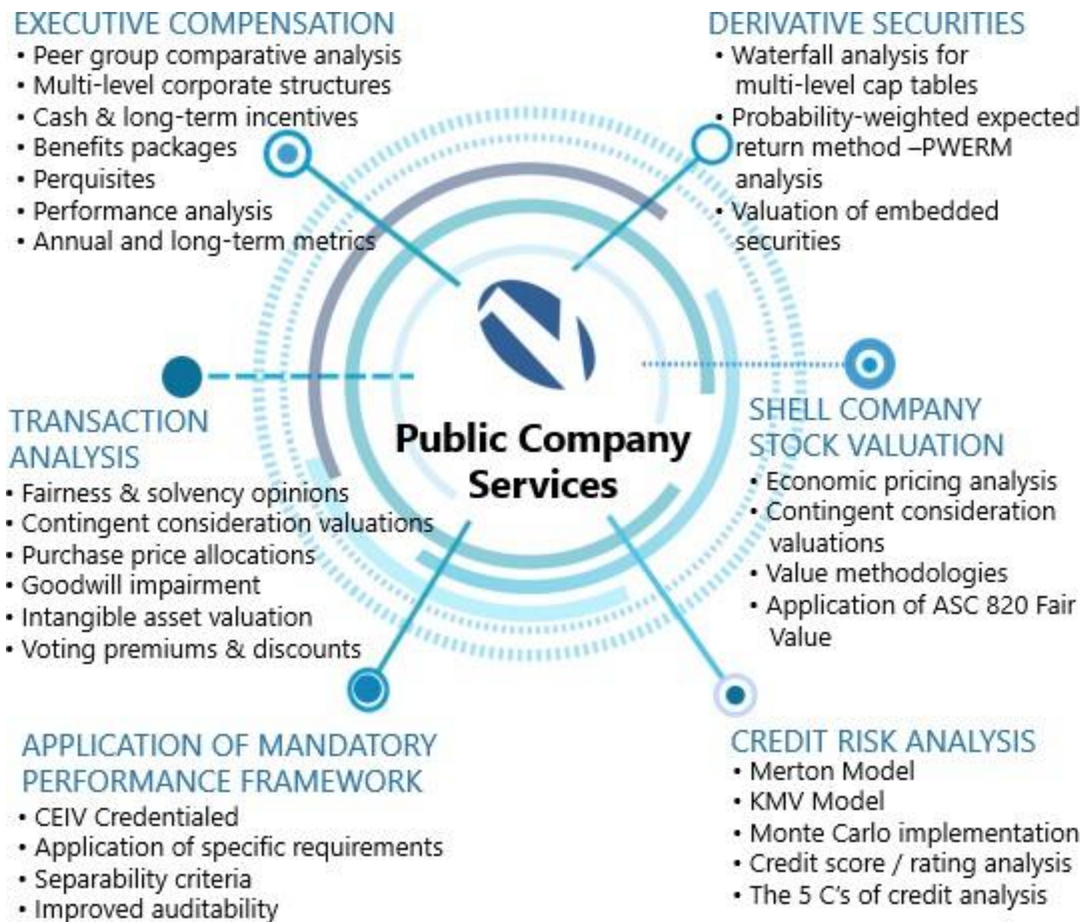
Lastly, "Replacement Cost Method Less Obsolescence" can be used for intangible asset valuation by calculating replacement cost for the intangible asset if it were brand new, and then applying an obsolescence factor unique to the intangible asset.

Conclusion

Valuation work associated with ESG might be relatively new, but the techniques and tools necessary to perform ESG valuation exist already. Both public and private companies can articulate their various ESG programs, policies, investment, and strategies. And intangible asset valuation concepts, such that the MEEM and the Differential Income Method, can and should be applied to unique ESG cash flows. This work can be used to reconcile and support a top-down adjustment to the CAPM, then the WACC, via Alpha. We know ESG is important and valuable, but it will be even more valuable when it is clearly quantified and valued using conventional and customary approaches.

ValueScope: Measuring, Defending and Creating Value for Our Clients

ValueScope is a leader in the application of fair value measurement applying the Mandatory Performance Framework for better compliance with the Public Company Accounting Oversight Board.



For more information or to contact us for any need you may have, please feel free to write or call. We look forward to speaking with you.

ValueScope Inc.
Thomas J. McNulty CQF, FRM, MBA
832-472-3717
tmcnulty@valuescopeinc.com