Measure what matters

Expanding the scope of intrinsic value to include ESG

UBS Asset Management | Whitepaper

“We must recognize...that intrinsic value is an elusive concept.”

– Benjamin Graham and David Dodd.

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A proactive approach to ESG data

The key to successful active equity investing is having the ability to accurately determine a stock’s intrinsic value in order to generate excess returns by taking advantage of market mispricing. UBS Asset Management’s intrinsic value equity platform has a long and rich history of doing just that, starting with the foundation laid in 1989 by Brinson Partners, which was acquired by UBS (predecessor Swiss Bank Corporation) in 1994.

Core to our research process is a multi-stage forward-looking cash flow model (the UBS Global Equity Valuation System), which documents our internal analysts’ independent view of a stock’s intrinsic value. In our view, incorporating material sustainability factors is a natural extension of this process that improves our ability to capture the “elusive” aspects of intrinsic value. This paper explains why we chose to extend this research process by building our own proprietary database of material non-financial sustainability factors that adds another level of useful insight to traditional financial analysis.

The road to materiality: Building our own ESG database

In the active equity space, investors must determine the intrinsic value of a stock and then take advantage of the difference between intrinsic value and market price to generate excess returns above the relevant benchmark. Benjamin Graham and David Dodd summed up the philosophy underlying value investing by noting that over the short term the equity market is a voting machine, but over the long term it is a weighing machine. In other words, a stock’s true value may not necessarily be reflected in the short term. Our ability to independently estimate intrinsic value and to actively invest in undervalued companies is essential to our long-term investment success. If we can successfully estimate intrinsic value and take advantage of market mispricings we can generate excess returns for our clients. UBS Asset Management has used a multi-stage valuation model for more than thirty years as a structured way to estimate intrinsic value.

The evaluation of a stock’s intrinsic value has traditionally focused on financial data, even though qualitative data can also be material. Graham and Dodd noted that while qualitative factors “…are exceedingly important, … they are also exceedingly difficult to deal with intelligently.” Indeed qualitative factors might not necessarily be subject to what they called “mathematical controls.” However, the evolution of reporting standards for material sustainability factors makes it not only possible for analysts to consider sustainability data, but desirable. There is increasing evidence that expanding the mosaic of data to include these factors is additive to the investment process. Consequently, the inclusion of material sustainability data in the analytical process should be viewed as a concerted effort to identify non-financial factors that can inform on the quality of management and the work force, innovation, the use of capital and other important inputs that can influence the future business prospects of a company.

Our view is that the assessment of intrinsic value is something we can only do ourselves. While we gather information from many sources, in order to succeed, we must own the entire information chain that drives the investment thesis. There are two important reasons for this view: first, we want to have ownership of all the inputs in order to ensure quality and accuracy. Second, ownership of the thought process ensures that we can identify our own analytical successes and mistakes, correcting course as needed.

For these reasons, we set out about ten years ago to develop our own sustainability database and our own methodology for scoring companies for the purpose of integrating it in our investment processes. At the heart of this effort is our belief that, as active investors, only we can decide which factors and inputs are material and which are not. This is no different from our sole reliance on our own cash flow estimates. We are fully aware of external estimates, but we recognize that we must have a correct non-consensus view to generate superior returns. We are not likely to succeed without this approach.

Similarly, while there are useful ESG ratings for purchase (as there are earnings estimates), we want to ensure that we select the underlying data we believe to be material, that we can test ourselves, correct as needed and that will provide an input to the process where we own the entirety of the value chain. This approach is important because our assessment of these factors must be supported by as much quality data as possible, and we must be able to stand by the results. Most importantly, ESG data needs to be evaluated simultaneously with the evaluation of traditional financial data, competitive analysis and all the other factors that we consider when making an investment decision. These inputs needed to have the same standing and a similar evaluation as all other inputs for us to be successful.

**Graham Dodd 2.0: Assessing business quality**

While Graham and Dodd note how difficult it is to achieve “mathematical certainty,” our effort is organized so as to turn this evaluation into a data-driven, structured approach that is supported by as much objective information as possible. The importance of this effort is that while taking in a relatively new universe of data, it still sits very squarely within the decision-making process described in 1934 by Graham and Dodd. Therefore, we regard the integration of material sustainability data in the investment process as Graham and Dodd 2.0: the adaptation of a successful long-standing process to new information that can improve the process itself.

The financial data used today is highly accurate and consistent globally as a consequence of improved regulatory oversight and the evolution of global financial reporting standards. At the heart of this evolution is the appointment of the Financial Accounting Standards Board (FASB) by the SEC in 1973 as the organization responsible for setting accounting standards for US public companies. Over time, FASB’s framework became the foundation for global accounting standards that make it possible for market participants to rely on global financial data. This journey, however, took many years and in the beginning, inconsistent reporting standards, inaccurate information and other issues created many obstacles for investors.

Material sustainability data is on its own, parallel journey. For example, in April 2016 the SEC issued a concept release on disclosure reform that received a significant number of letters endorsing sustainability disclosure. More recently, the Task Force on Climate Risk Disclosure of the Financial Stability Board issued a final report with recommendations on disclosure of material climate risks and opportunities.

**SASB Materiality Map™: A Foundation for Asset Management**

The Sustainability Accounting Standards Board (SASB) is a non-profit organization that provides standards for reporting material non-financial information to investors. SASB developed a Materiality Map™ for each industry sector in 2011 with input from investors, accountants, industry experts and data providers. These experts identified measurable and relevant Key Performance Indicators (KPIs) that are industry specific, and can be indicators of superior sustainability performance. After a period of public review, these KPIs formed the foundation for SASB’s sustainability accounting standards. The SASB Materiality Map has gained wide acceptance across the sustainable investing community, and was the foundation for how we selected which factors to include in our model. (See Sidebar for a more detailed look at the SASB Sustainability Map.)

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5 UBS Asset Management is a member of the Institutional Advisory Group of SASB.
Applying the SASB Framework to build a proprietary sustainability database

UBS Asset Management has significant experience building quantitative factor libraries. We decided to build our own library of relevant sustainability data that we could use to compare and rank companies within the same industry. The architectural framework for the database parallels the SASB Materiality Map with customized KPIs for different industries.

After determining the most material factors, the objective was to identify the best data source per each factor, determined by the timeliness of data updates, breadth of coverage across companies in our investment universe, and the ability to efficiently integrate the data into the model.

When selecting factors that align with the SASB Materiality Map, our aim was to give preference to quantifiable factors, as we deem them to be a better measure of the company’s effectiveness. For quantifiable factors, such as carbon intensity (i.e. carbon emissions relative to revenue) companies are evaluated relative to their industry peers such that those with lower carbon intensity levels would be given a higher score than their high intensity peers. With regards to binary factors, such as having safeguards in place to ensure client sensitive data is secure, we give credit to the company if it discloses the existence of such policy and penalize all companies absent such policy.

Each KPI is converted into a score using industry-specific weightings, which when combined produce a final score for the company. It is critical to understand the biases and limitations of the data. For instance, larger and more established companies tend to have greater resources for the collection and reporting of ESG data compared to their small cap peers. Additionally, as corporate sustainability disclosure is still developing and unstandardized, the bulk of information disclosed tends to be on policies or corporate structure rather than quantifiable performance metrics. As a result the effectiveness of such policies can be difficult to assess.

When constructing the ESG model, we made a concerted effort to mitigate the noise in the data and alleviate these biases. For example, vastly different business models across industries make it necessary to normalize the scores of each company across industries for comparability. Thus, we rank all companies relative to their industry peers based on their ESG raw score, and sort these into deciles. In so doing, scores are industry neutral and any industry biases are controlled.

This process allows us to have an objective ESG score which is transparent, comparable, and which reflects our proprietary assessment of a company’s sustainability profile. The goal of the Sustainable Investors team is to identify stocks that are both attractively valued from a relative valuation perspective and have a strong sustainability profile, see Figure 1. It is our belief that these companies have the greatest upside potential given their valuation, and less downside risk given the quality of management and best practices displayed by their strong sustainability performance.

Benefits to the investment process and to our clients

We believe that our approach has several significant advantages. First, the UBS Sustainability Score is calculated using pre-defined rules that translate the data into numeric values, generating a consistent rating across a broad set of companies. This approach improves objectivity and accuracy.

Second, having gone through the process of identifying the most relevant KPIs and data sources, we understand both the strengths and weaknesses of the data itself. Our database makes it possible for our analysts and portfolio managers to identify the most material factors that need to be assessed and the data (and resulting score) that is associated with those factors. We are able to enhance the data and the assessment framework as we meet with the company or other experts.

Owning both the data and the scoring methodology allows us to continuously improve our database by including new sources of data. Therefore, the scoring system is aided by “learning by doing” and can benefit from the process and experience of integrating sustainability insights into stock analysis.

The financial data used today is highly accurate and consistent globally as a consequence of improved regulatory oversight and the evolution of global financial reporting standards.
Third, it is important to note that we have deliberately constructed a process where sustainability data is part of the entire mix of data. We want all of our analysts and portfolio managers to be familiar with the data, to know how to interpret it and use it in the investment process, thereby also enhancing understanding of a company.

Finally, basing the rating on a consistent set of KPIs and data points with a solid history allows for a rigorous quantitative testing of the financial efficacy of our sustainability score. When combined with our thirty-year database of intrinsic value estimates going back to the founding of the firm, we can uniquely test how and when our sustainability score is effective within the context of our own alphas. We believe this is a more powerful approach than testing within a risk framework alone and more rigorous than academic tests to date (which rely on asset pricing models without inclusion of a time series of alphas).

While we are still evaluating various backtesting methodologies, our preliminary backtest results comparing our scoring methodology against the MSCI ACWI World Index benchmark during the period from January 1, 2010 to December 31, 2015, suggest ESG can help mitigate downside risk, and that incorporating ESG does not compromise alpha. The objective of our backtest was to test the efficacy of combining our proprietary valuation signal with our ESG scores to determine if ESG can be additive to the fundamental investment process.

One key finding in our preliminary backtesting is that companies with strong governance profiles as determined by our ESG database and strong profiles on our proprietary valuation framework consistently out-perform the MSCI ACWI benchmark. Figure 2 on the next page compares the performance of those stocks in the MSCI ACWI index that are ranked at or above the 6th decile (High Alpha) or below the 6th decile (Low Alpha) in governance factors using UBS Asset Management’s proprietary valuation database, and either at or above the 6th decile (High ESG) or below the 6th decile (Low ESG) in governance factors according to UBS Asset Management’s ESG database. Companies that are both High Alpha and High ESG outperformed companies with poor governance but similar valuation by an average of 12bps every month on an equal-weighted basis.

This speaks directly to the challenge that Graham and Dodd outlined, “qualitative factors...involve the same ...difficulty for the analyst, that it is impossible to judge how far they may properly reflect themselves in the price of a given security.” While sustainability data is not yet standardized and continues...
to evolve, we have found that its judicious use in an active investment process helps bring more “mathematical accuracy” to valuation models.

Our approach makes it possible to properly evaluate these factors and to include them in an investment process without compromising any other part of the process that is driven by financial analysis, cash flow estimates, etc. We believe that our approach is a $2 + 2 = 5$ proposition—it takes nothing away from traditional analysis while adding another level of useful insight to fundamental investors.

The benefit to our clients and our process is very clear—a sound, traditional approach to the estimation of intrinsic value that is enhanced by the structured inclusion of material ESG data. ESG integration helps portfolio managers and analysts make choices, at the margin, between similar valuation opportunities. We can show that ESG integration helps diminish alpha volatility and enhance stock selection after taking account of other influences, such as regional reporting biases and industry biases. Given that the information is additive to the process, we are evolving our portfolio construction and risk management systems to make our ESG database readily available to all active investors in our equity platform. Our objective is to integrate material ESG data across our entire firm and to embed it in our investment processes in a holistic and structured manner. We believe that this evolution is fully in the spirit of our overall mission: to estimate intrinsic value, using the most modern approach possible and thereby to create value for our clients.


**SASB Materiality Map™: A Foundation for Asset Management**

The Sustainability Accounting Standards Board’s SASB Materiality Map provides a focused set of key sustainability factors at the industry sector level and creates accounting standards to measure them. The actual materiality determination has to be done by the auditor and company financial management, according to the US Securities and Exchange Commission’s Staff Accounting Bulletin No. 99, issued in 1999, which offered guidance on assessing materiality:

“Under the governing principles, an assessment of materiality requires that one views the facts in the context of the … “total mix” of information, in the words of the Supreme Court… The shorthand in the accounting and auditing literature for this analysis is that financial management and the auditor must consider both “quantitative” and “qualitative” factors in assessing an item’s materiality.⁶

SASB material issues are determined through a multi-stage process that is both analytically rigorous and inclusive of external feedback. The SASB analyst team conducts a materiality analysis, which includes a detailed account of how specific sustainability issues (whether quantitative or qualitative) may impact companies in each industry, either through revenues or costs, affecting asset and liabilities, or by impacting the risk profile and cost of capital of a company. This materiality analysis includes developing integrated discounted cash flow models to determine the magnitude of selected sustainability issues on company valuations, which then allows issues to be prioritized in importance relative to the degree of impact they have on company value as well as the probability that they will impact the company in the future.


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**Americas**

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17-0799 11/17
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