NEUBERGER | BERMAN

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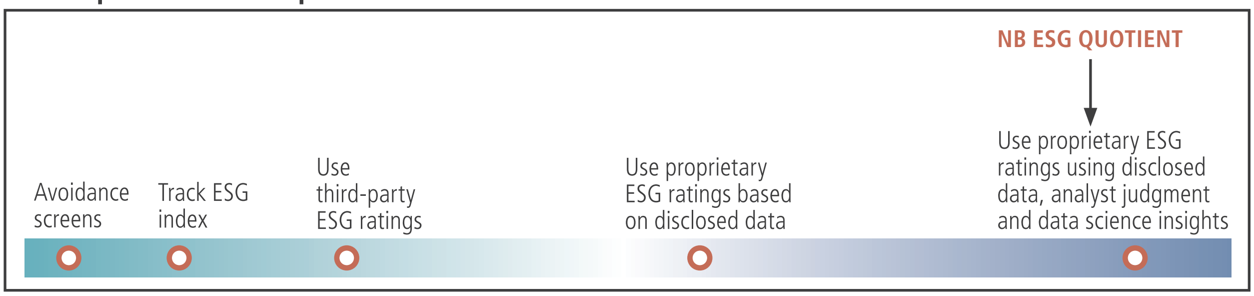
ESG INVESTING TEAM

NB ESG Quotient: Broad Perspective and Granular Insights From Proprietary ESG Ratings

Our ratings consider potentially material ESG factors at both company and portfolio levels.

Neuberger Berman believes that material environmental, social and governance (ESG) characteristics are an important driver of long-term investment returns from both opportunity and risk mitigation perspectives. We also understand that for many of our clients the impact of their portfolio is an important consideration in conjunction with investment performance. To inform investment processes across strategies and asset classes, our firm employs a set of proprietary ratings, called NB ESG Quotient, that highlight ESG considerations with potentially material impacts on results at both company and portfolio levels. In this *Insights*, we provide an overview of our rating system, explain how it functions, and explore its potential additive impact on research and portfolio management.

ESG Implementation Spectrum



Building Our Ratings System

In order to capture risks and opportunities associated with ESG factors, our ESG Investing team began to collaborate with our Global Equity Research team in 2017 to create our ratings system. The objective was to go beyond the numerous third-party ESG ratings in the marketplace by leveraging our deep industry knowledge, frequent company engagements and unique view of financial materiality to better measure ESG characteristics, focusing initially on the Russell 1000 universe.

The effort started by determining with analysts which ESG factors are financially material in each industry. For instance, factors such as privacy, data security and intellectual property that may be relevant in technology may be less relevant in packaging, where raw material use, recycling and safety may be more important. The output was our Neuberger Berman Materiality Matrix for more than 75 different industries, which is available to all investment teams to use as a starting point for further ESG analysis.

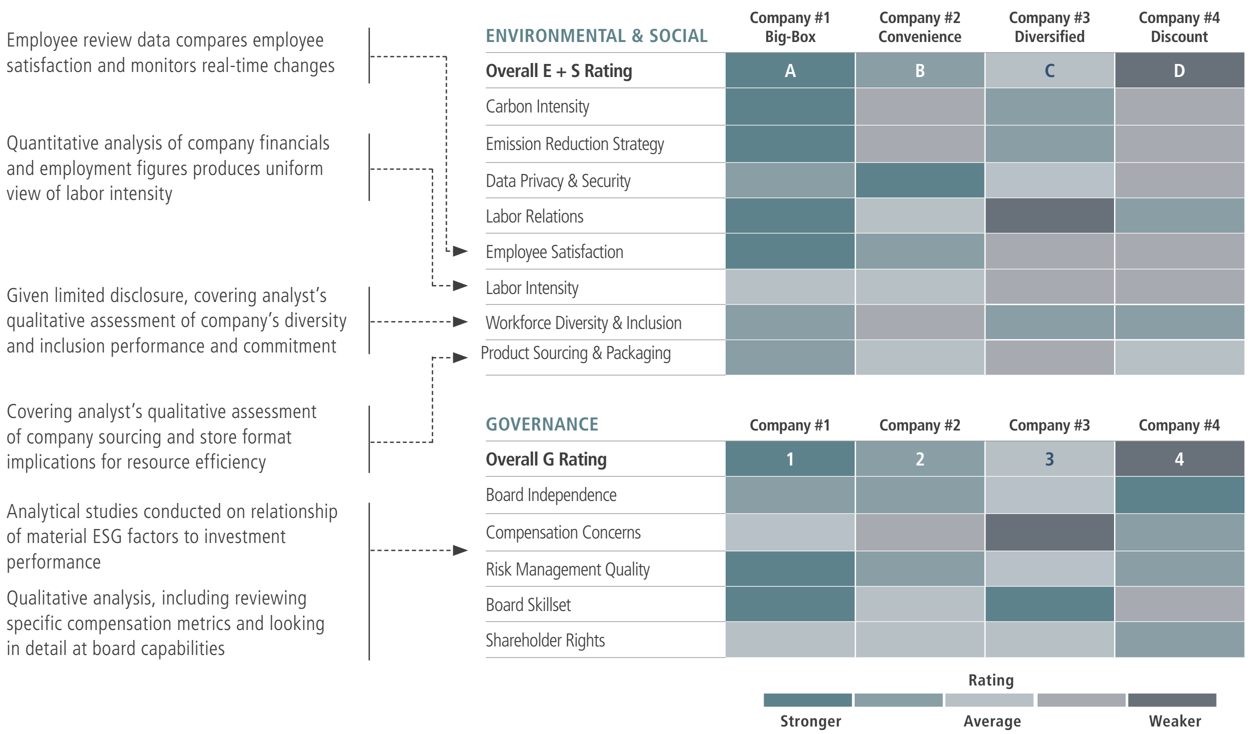
Next, our equity research analysts and the ESG Investing team had to decide the most accurate ways to measure company performance on these material factors, so that constituents of an industry could be compared on a relative basis. We settled on three broad tools to measure performance: The first was traditional third-party ESG data available in the marketplace, specifically evidence-based subcomponents, rather than broad or subjective headline company ratings; the second was nontraditional ESG data, made available through the integration with our Data Science team, for sources such as job postings, publicly available databases (OSHA, FDA, etc.), employment review websites and relevant research produced by industry trade groups or NGOs; the third, and most significant, element was to capitalize on internal analyst input to identify particularly hard-to-measure factors such as regulatory risk, governance impacts (including the varied governance indicators applicable to specific industries) and more forward-looking data points, such as estimates of climate transition alignment at a future date. Examples of the latter two buckets are shown in the accompanying display.

The result of this work is an industry-relative rating, the NB ESG Quotient, for each company under coverage on separate Environmental and Social (ES), and Governance (G) characteristics, which can be accessed by all investment professionals at Neuberger Berman. Data underlying the ratings are updated weekly and reviewed at least annually with sector analysts to determine if any factors should be added or subtracted, or whether a more accurate way to measure a factor has emerged.

The ESG Quotient is also aggregated to provide a summary view of the ESG characteristics of a portfolio versus the benchmark for investment teams, available through research and reporting environments. As of December 15, 2020, we have proprietary E, S or G ratings for more than 3,500 securities, reflecting 100% coverage of the Russell 1000 Index, and greater than 90% coverage of the MSCI EAFE Index and MSCI EM Index. In Fixed Income, we have ESG Quotient coverage across Global Developed Markets (Non-Investment Grade and Investment Grade) and Emerging Markets in corporate and sovereign credit.

DEVELOPED SYSTEMATIC AND INDUSTRY-SPECIFIC ESG RATINGS BY COMPANY

Proprietary ESG Quotient Rating Example: Retail and General Merchandise Industry



Source: Neuberger Berman. Please see disclosures at the end of this material.

Central Research Analyst's view of the environmental, social and governance characteristics of a company on material factors relative to the peer group. For environmental and social, A – D quartiles where A is best, D is worst. For governance, 1 – 4 quartiles where 1 is best, 4 is worst. "Big Box" retailer defined as store that achieves economies of scale by focusing on large-scale volumes. "Convenience" retailer defined as small retail business that stocks a range of everyday items. "Diversified" retailer defined as providing products or services that are unrelated to products offered in their other stores. "Discount" retailer defined as department store that offers items at a lower price than other retail stores.

Incorporating our ESG Quotient Into Stewardship

Engagement Insights Inform ESG Ratings. Real-time engagement with companies on the NB ESG Quotient can produce actionable insights and opportunities for further data science work. For example, during the past year we conducted a dialogue with an energy infrastructure operator that had recently divested high-emission assets that were not yet reflected in backward-looking third-party data emission data. The company was able to provide us with estimates of what portion of historical emissions the assets represented so that we could adjust the inputs to our ratings, resulting in a higher and more forward-looking ESG rating through collaboration with the covering analyst.

In another example, collaboration with our Data Science team provided a differentiated view of a holding's labor management practices, which had been scored extremely negatively by third parties. Our interactions with management and its external awards as a top-quality place to work told a different story. When we "scraped" ratings from Glassdoor, the employer-ratings website, for the telecommunications sector, we found that the company ranked well above average. Its job-postings churn ratio also compared well with its peers, at seventh out of 22 companies. A higher ratio would have implied that employees did not believe the firm was a good place to work. Together, these alternative ESG data sets gave us confidence in a higher ESG rating than those of third parties.

Engaging to Improve or Resolve ESG Performance. One of the greatest opportunities for long-term outperformance in active ESG implementation may come through engaging to improve ESG practices among portfolio holdings. Given the close relationship that covering analysts have with holdings, we can often be a resource for how to advance ESG objectives or resolve outstanding issues. One example involved our engagement with a home improvement retailer on its approach to human capital management.

Over the past few years, we have regularly engaged with the company on workforce topics such as employee pay rates, employee retention, workforce diversity and culture, as well as ways it can improve its disclosure to better reflect its efforts. We believe the company's focus on employees enabled it to respond more effectively to the onset of the COVID-19 pandemic, acting more decisively than peers in prioritizing employee well-being, offering bonuses and keeping stores as safe as possible—all of which helped to uphold its reputation as a premier retail workplace and improve its rating compared to peers.

A second example involved a years-long engagement with a real estate investment trust, in which we advised the company on materiality frameworks, key performance indicators for disclosure and peer best practices, which resulted in its first disclosure of ESG metrics. This relationship with the company continued over the past year through our NB Votes initiative, whereby we supported a director classified by third parties as "over-boarded" after we engaged with the company to ensure he would reduce his other commitments going forward. We believe both of these outcomes improved the ESG profile of holdings and demonstrates the benefits of active engagement when it comes to ESG implementation, while offering additional perspective on voting decisions.

Conclusion

In our view, our NB ESG Quotient provides valuable insights as a quick summary of company ESG characteristics, but more as a window to underlying ESG details that could prove valuable to investment professionals across our firm as they assess the risk and return potential of individual companies. Importantly, the ratings bring the full capabilities of Neuberger Berman to bear as a result of collaboration among the ESG Investing, Big Data and central research teams, who leverage specialized expertise to achieve observations that might not be attainable without such cooperation. Finally, the ratings can both be enhanced by, and help drive, engagement efforts, creating a virtuous circle based on information and positive actions by management that also informs our proxy voting decisions.

NB ESG Quotient Methodology: Disclosures

For environmental and social (ES) rankings, A – D quartiles are used, where A is best (top quartile), D is worst (lowest quartile). For governance (G) rankings, 1 – 4 quartiles are used where 1 is best, 4 is worst. Average ESG rating is not a rating of the fund strategy itself.

Neuberger Berman's Research Department and the ESG Investing team work together to rate corporations on material ESG factors at the industry level, across public equity and fixed income. We measure company performance on material ESG factors by using quantitative data and qualitative analysis, informed by engagement with individual companies. Neuberger Berman's Research Department conducts comprehensive ESG research on company activities and products that is available to all portfolio managers. Our analysts provide comprehensive coverage of companies in their universe, including proprietary ratings and assessments of ESG, as well as ESG data and research available to them through internal portals and external platforms like FactSet and MSCI. Given limited disclosure of ESG data, many ratings include significant qualitative judgment from analysts themselves. These ratings are used by central research analysts in their fundamental analysis of companies and by portfolio managers as part of their approach to ESG integration.

The methodology for determining the proprietary ES ratings is a multi-step process. In the first step, members of the firm's central research equity analysts determine which Environmental and Social issues are likely to be financially material for the sector that each analyst covers. The research team then works with the ESG Investing team to identify quantitative sources to measure a particular. company's performance against those issues by applying a variety of public and proprietary sources. For ES issues requiring additional incremental insight, research analysts use proprietary quantitative or qualitative assessments. Each company analyzed within a sector is then compared to peer companies on a normalized distribution. That analysis produces an overall ES performance for the company, which is then converted into a quartile rating (A – D). As a final step, further refinements up or down by no more than one quartile are applied to the ranking by the analysts based on their engagement with the company and their overall industry experience. The data underlying the ratings is updated weekly and the entire sector is reviewed at least once annually.

The methodology for determining the proprietary G ratings is also a multi-step process. First, governance indicators are regressed against historical stock performance to identify potential variables for inclusion. The firm's equity sector analysts then review those regressions and apply weighted variables to that data based on their judgment of which factors are likely to be predictors of positive or negative corporate performance. The analysts then rate the companies within the sector on a normalized distribution for their overall G performance, which is converted into a quartile rating (1 – 4). As a final step, analysts are given the opportunity to adjust the ratings, but only after completing a standardized qualitative assessment of the company governance characteristics. The data underlying the ratings is updated weekly and the methodology is reviewed at least once annually.

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