



BUILDING STRONGER PORTFOLIOS

ESG Integration

Equities

July 2020

Approach by asset class

Equities

We believe that responsible stewardship of our clients' assets requires an assessment of the ESG risks and opportunities of the companies in which we invest. We address ESG factors throughout our investment process, including research, company engagement and portfolio construction. Our fundamental analysts incorporate ESG considerations into their analysis to gauge the sustainability of a business, the quality of management and the risks posed to minority shareholders.

Research

A key strength of our investment process is our in-house research capabilities, on both a fundamental and a quantitative basis. Our ESG views of specific companies, part of the foundation of our fundamental research approach, are the product of proprietary research and one-on-one engagement with companies. In addition, we draw on data from external providers.

We used several internally developed research processes to assess the ESG credentials of any business:

1. A globally consistent, 40-question ESG checklist, which has been answered for more than 2,000 stocks globally, has produced a unique proprietary database of ESG factors across our investible universe.
2. A quantitative-led ESG score leverages third-party ESG data, weighted according to our own views on materiality. This score provides further breadth for stocks not currently covered by our 40-question checklist.
3. A strategic classification framework for the 2,000-plus stocks that we cover. These classifications provide a rating (Premium, Quality, Trading and Structurally Challenged) for each stock, based on our judgment of the quality of the business; ESG is an explicit part of the rating process.
4. Deep-dive research into specific ESG topics identified as material to our investment process, for stocks and sectors. Among the topics examined: flaring in U.S. oil fields, the environmental impact of fast fashion in Europe and corporate governance in insurance companies in Asia.

As we continue to develop and refine our ESG analysis, we are looking to build a proprietary materiality framework. The twin objectives of this framework: to deepen our insights, including our views on which subindustries are more (or less) attractive from an ESG perspective; and to systematically identify best-in-class businesses at a more granular level. We have recently finalized this framework in our Emerging Markets Asia Pacific team.

Engagement

Active engagement with companies has long been an integral part of our approach to our investment and ESG. We use it not only to understand how companies consider issues related to ESG but also to try to influence their behavior and encourage best practices, for the purpose of enhancing returns for our clients. We engage at scheduled meetings with company management or at meetings specifically arranged to address issues our research has uncovered, either around specific proposals or broader responsibilities and business operations.

We take both a top-down and a bottom-up approach to our engagement. From a top-down perspective, our central Investment Stewardship Team sets priorities for engagements on a firmwide level. The team then uses our proprietary checklist and quantitative scoring, as well as third-party ESG data, to target companies whose shares we own (or might own) when an ESG issue comes into play. The Investment Stewardship Team will then work with the investment teams to engage with the company, recording the results of that engagement in our proprietary database,

Spectrum™, to ensure that it is shared with all investors across J.P. Morgan Asset Management, where appropriate. Indeed, all company engagements are written up in Spectrum™ for use by other investment teams.

On a bottom-up basis, investors often identify issues related to ESG through their day-to-day work and interaction with company management teams. In these instances, investors may choose to engage the Investment Stewardship Team. Our fundamental analysts endeavor to meet companies in which we invest at least annually and usually more frequently. Our long history of active management and our stable teams of experienced investors enable us to have ongoing dialogues directly with companies' top management, maximizing our ability to encourage companies to implement best practices on ESG matters.

Portfolio construction

While we do not explicitly exclude individual stocks on ESG criteria (except for certain of our sustainable strategies or when specifically requested by clients or required by local legislation), ESG factors could influence our level of conviction and thus impact a stock's position size during portfolio construction. Although precise methodologies will vary, ESG information is considered throughout the investment process.

Case Study:

A globally consistent 40 question ESG Checklist

Our globally consistent, 40-question ESG checklist contains 12 questions on environmental factors, 12 on social factors and 16 on governance.

The questions are worded so that "yes" is negative, creating a red flag that alerts the portfolio manager to a potential risk. The checklist is not a "pass/fail" exercise but rather a tool to inform discussions between portfolio managers and fundamental analysts, and our engagements with the companies we cover. Among the questions on our checklist:

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| Environment | <ul style="list-style-type: none"> - Is the business vulnerable to regulation aimed at limiting greenhouse gas emissions? - Does the company have issues with toxic emissions, waste management or other environmental damage? - Is the company failing to responsibly manage its use of water resources? |
| Social | <ul style="list-style-type: none"> - Does the company have issues with labor relations? - Has the company had issues with privacy or data security? - Does the company engage in anti-competitive behavior and/or treat its customers unfairly? |
| Governance | <ul style="list-style-type: none"> - Is the management unable to outline a robust capital allocation methodology for the business? - Does the board lack diversity in its directors? - Does the owner have a history of poor governance or of abusing minority shareholders? |

Case Study: Engagement

Large European Energy Company

We have engaged with a large energy company on its sustainability strategy on a continual basis over multiple years. Our recent discussion confirmed the company's transition narrative: It is shifting its portfolio to natural gas and investing in renewable energies where it finds attractive potential returns. In the company's view, fossil fuels will still be needed as a reliable source of energy, and gas is a cleaner alternative to coal, emitting 50% to 60% less carbon dioxide (CO₂).

However, these efforts will not be sufficient to materially limit CO₂ emissions, and this exposes the company to potential costs from more stringent climate-related regulation. This is why the company has been allocating resources to carbon capture, utilization and storage (CCUS)—a technology that reduces the amount of carbon released into the atmosphere—spending 10% of its annual research and development budget on the effort.

To learn more about the company's commitment to CCUS, we arranged a follow-up call with its CCUS and climate experts. We learned that CCUS development, broadly, is far behind the levels needed to reach carbon neutrality and limit temperature rises in line with the goals of the Paris Agreement. This situation is unlikely to change in the near future, as CCUS faces numerous challenges, including the fact that the cost of the technology is high and not expected to fall in the foreseeable future.

The company's significant investment in the technology, even in the face of significant challenges, demonstrates a forward-thinking approach to climate-related risks. Among its peers, the company is a leader in sustainability, addressing the carbon issue seriously and thinking practically about its business implications. That perspective will be key for the industry's viability.

Case Study: Engagement

Flaring issues with U.S. energy companies

Natural gas flaring is the process of combusting natural gas at the wellhead, using a dedicated flare. We believe CO₂ combustion through flaring, and methane from unlit and partially burning flares contribute unnecessarily to greenhouse gas emissions, without an economic benefit. Because gas that has been flared has not been captured and sold, this creates societal and economic costs, including forgone revenue streams to federal and state governments and private mineral owners. Operators must therefore preserve their social and regulatory license to operate by recognizing that flaring is a problem, but one with multiple solutions and a compelling long-term economic proposition.

A number of industry participants have begun to differentiate their operating practices when it comes to flaring and, in so doing, deliver substantial emissions reductions. We are observing that some companies have reduced their flaring intensity to as low as 1% of production vs. others that remain greater than 20%. They have achieved these reductions through more deliberate planning and the adoption of widely available technologies and equipment. Consequently, we have been proactively engaging with the oil and gas sector to encourage them to reduce routine flaring, move away from diesel combustion processes during well completions and upgrade their legacy equipment to eliminate further preventable methane releases.

During one of our recent engagements with a U.S. energy company, we asked for a commitment to reduce all flaring to less than 1% of production. The company agreed that flaring is not acceptable and told us it aims to have no routine flaring. However, third-party involvement in its operations meant it would be unable to achieve this goal in the near term. In our engagement, we emphasized the importance of establishing suitably ambitious objectives to reduce the company's environmental footprint through practical business plans supported by enhanced emissions transparency. We will continue to engage with the company to reduce routine flaring. In our centralized system, we noted our concerns about the company's transparency on the emissions issue.

We believe that in a world where carbon emissions are significantly taxed there will be winners and losers in the energy sector. Moreover, a global price for carbon will enable renewable sources of energy to accelerate penetration and reward companies that are less carbon intensive. Furthermore, companies that are demonstrating a lack of leadership and transparency on climate-related issues are likely to be regarded as laggards.

In this particular company engagement, like many others, we incorporate the insights we gain into our risk assessment and investment decision-making.

BUILDING STRONGER PORTFOLIOS

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