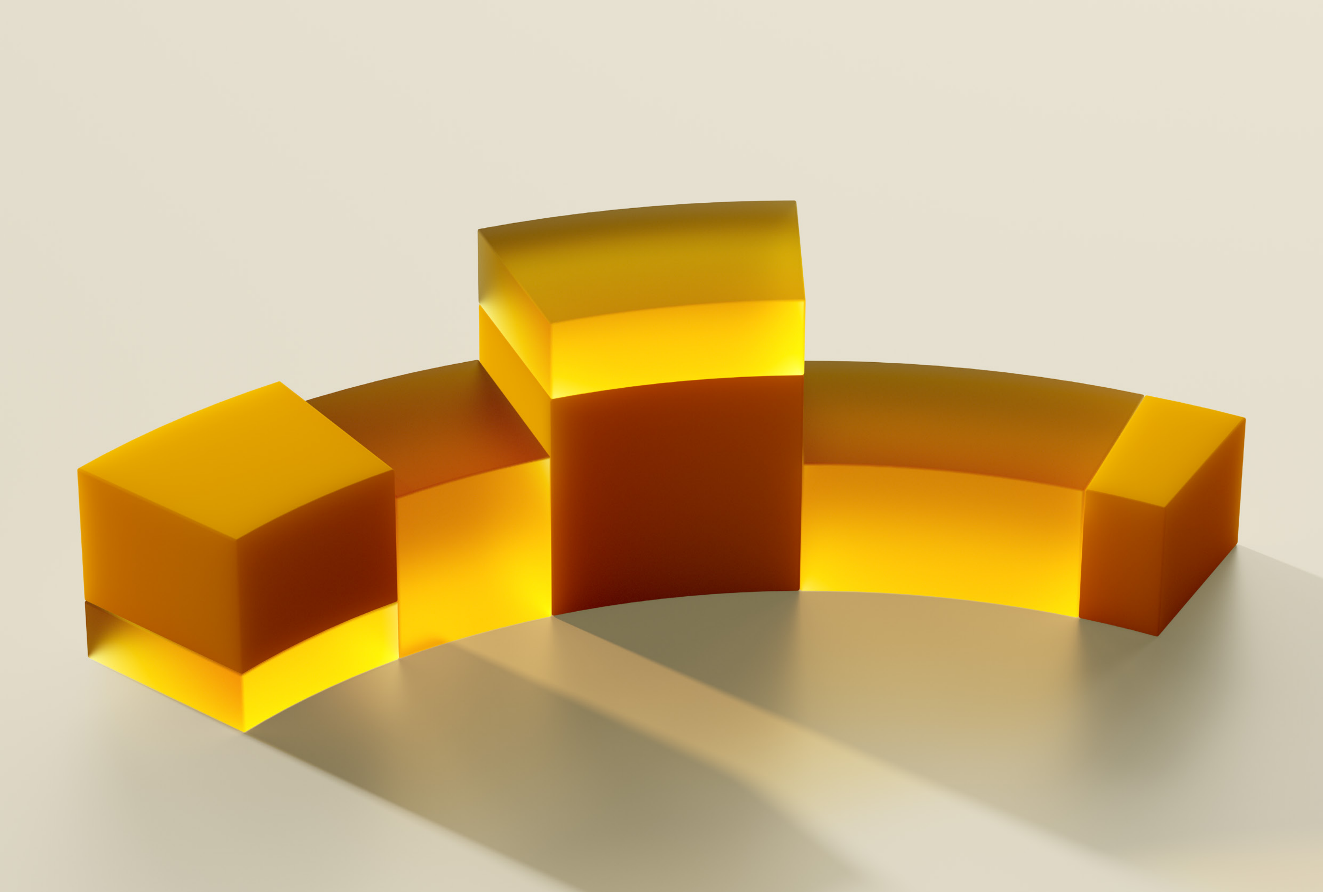


ESG integration at J.P. Morgan Asset Management

Building more resilient portfolios for the long term

April 2023

J.P.Morgan
ASSET MANAGEMENT

Introduction

As an asset manager, we are guided by our duty to act in the best interests of our clients.

Certain actively managed strategies deemed by JPMAM to be ESG integrated under our governance process systematically assess financially material ESG factors (alongside other relevant factors) in our investment decisions with the goals of managing risk and improving long-term returns. This is known as ESG integration. ESG integration does not change a strategy's investment objective, exclude specific types of companies or constrain a strategy's investable universe. In addition, ESG integration is dependent upon the availability of sufficient ESG information relevant to the applicable investment universe. ESG factors are not considered for each and every investment decision. In order for a strategy to be considered ESG integrated, JPMAM requires: (1) portfolio management teams to consider proprietary research on the financial materiality of ESG issues on the strategy's investments; (2) documentation of the research views and methodology throughout the investment process; and (3) appropriate monitoring of ESG considerations in ongoing risk management and portfolio monitoring. The impact of ESG integration on performance is not specifically measurable as investment decisions are discretionary regardless of ESG considerations. ESG integration does not happen in isolation and is one element alongside other factors considered in our investment processes.

By considering financially material ESG factors, we believe ESG integration can inform better long-term investment decision making and can help build stronger portfolios for our clients.

We view ESG integration and stewardship as complementary practices working in tandem to encourage investing in a way that ultimately benefits clients. The following are some illustrative examples of ESG factors that may be taken into account during our investment and engagement processes.

Our approach to ESG integration focuses on financial materiality, with the understanding that not all ESG factors are relevant to a particular investment, asset class or strategy.

Active ownership is a key component of our standard investment processes. We use it to understand how companies or issuers consider issues related to ESG and encourage best practices, for the purpose of enhancing returns for our clients. We define engagement as active interaction with investee companies or issuers, exercising our voice as a long-term investor through industry participation and proxy voting. Active ownership in the context of ESG integration allows us to manage ESG risks and to systematically incorporate insights gained from engagement into our investment decisions.

ESG factors that we consider

Environmental
- Air pollution
- Waste-water management
- Biodiversity impacts

Social
- Product safety
- Diversity and inclusion
- Local community impacts

Governance
- Board composition
- Executive remuneration
- Capital allocation

Introduction continued

There are four key reasons why we believe consideration of financially material ESG metrics may lead companies to perform better in the long run:

- **Efficiency gains**: there is a large and growing body of academic evidence to suggest strong ESG performance serves to mitigate risk and enhance employee and structural efficiency. Empirical studies find a positive link between ESG metrics and financial performance of companies, suggesting that the adoption of sustainable business practices may sometimes be necessary to keep them from falling behind competitors.[1]
- **Consumer sentiment**: recently, there have been powerful shifts in consumer sentiment from firms with poor ESG ratings toward more responsible alternatives.
- **Mitigation of regulatory risks**: ESG leaders are likely to be more insulated from the regulatory risk associated with the transition to a net-zero economy; for example, the rise in carbon pricing.
- **Capital costs**: shifts in investor sentiment toward green-bond purchases will reduce the cost of capital for issuers. Research from MSCI found that companies averaging high ESG scores experienced lower costs of capital compared to companies with poor ESG scores in both developed and emerging markets during a four-year study period. The cost of equity and debt followed the same relationship.[2]

The practice of integrating financially material ESG metrics into investment processes aims to strengthen risk management and may contribute to long-term financial returns. Consequently, we believe ESG integration can help deliver enhanced risk-adjusted returns over the long run. It is important to note that the financial materiality of ESG metrics varies depending on the time horizons under consideration, as well as specific regional or macroeconomic influences. We believe it is important to align the consideration of ESG metrics to the specific investment style, such that the integration of ESG information contributes to investment performance.

As a global active manager using a variety of investment styles, we integrate financially material ESG metrics into the investment process of an investment group in a manner consistent with the underlying strategy, from purely quantitative to those based on a combination of fundamental research and qualitative judgments.

We define investment groups as investment teams which share a common investment process and ESG integration approach and common investment strategies. Because of the variety of actively managed investment strategies, types of investments and investment processes, financially material ESG metrics will differ across investment groups, and we do not mandate that each investment group implement ESG integration in the same way. For example, there may be differences in which equity and fixed income investors evaluate governance practices of a company. Instead, we apply key metrics that focus on the robustness of the ESG integration process to determine if an investment group can be considered as ESG integrated by J.P. Morgan Asset Management. We use a process-focused 10-metric scoring framework to validate the approach applied by the investment groups.

We also offer a growing range of products designed for clients that want to go beyond standard ESG integration and invest in products with more defined ESG characteristics or objectives. Nevertheless, we can make no assurance that the integration or security selection methodology used by our portfolio managers and analysts will align with the individual beliefs or values of a particular client, nor that ESG integration will apply to every security in a client's portfolio.[3]

It is important to note that for the ESG integration process to be satisfied, we require the following:

1. Portfolio management teams to consider proprietary research on the financial materiality of ESG issues on the strategy's investments, and to conduct corporate engagements where relevant.
2. Documentation of the advisor's research views and methodology throughout the investment process.
3. Appropriate monitoring of ESG considerations in ongoing risk management and portfolio monitoring.

[1] Gunnar Friede, Timo Busch and Alexander Bassen, "ESG and financial performance: Aggregated evidence from more than 2,000 empirical studies,"Journal of Sustainable Finance & Investment, 5:4 (2015), 210-233.

[2] MSCI, "ESG and the Cost of Capital" (2020) https://www.msci.com/www/blog-posts/esg-and-the-cost-of-capital/01726513589

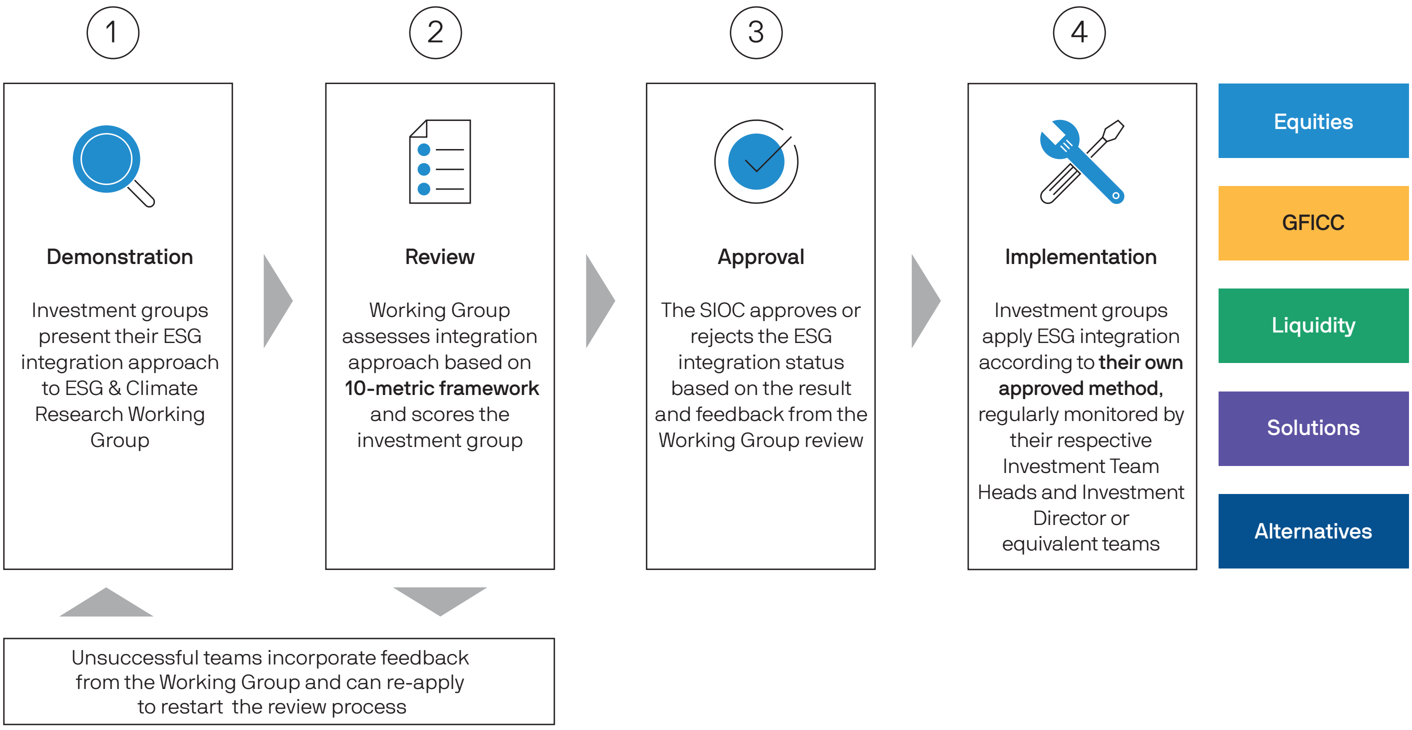
[3] For further details on strategies that are ESG integrated, please reach out to your local JPMAM representative.

Introduction continued

Please note: ESG determinations may not be conclusive and securities of companies or issuers may be purchased and retained, without limit, by the investment manager regardless of potential ESG impact. The impact of ESG integration on a Fund's performance is not specifically measurable as investment decisions are discretionary regardless of ESG considerations. Unless stated otherwise in a financial product's documentation and included within its investment objective and investment policy, ESG integrated products are not designed for clients who wish to screen out particular types of companies or investments or are looking for products that meet specific ESG goals. In other words, ESG integration by itself does not change a product's investment objective or constrain the investment manager's investable universe, nor does it imply that a product is marketed or authorized as an ESG product in any jurisdiction where such authorization is required.

The assessment of environmental, social and governance information and events requires subjective judgments, which may include consideration of third-party data that may be incomplete or inaccurate. There can be no guarantee we will correctly assess such impact.

ESG integration validation process at J.P. Morgan Asset Management



Source: J.P. Morgan Asset Management, as of December 31, 2022.

Our ESG integration process

The following describes J.P. Morgan Asset Management's current process for determining whether an investment group has integrated ESG into its investment processes.

Our ESG & Climate Research Working Group vets and reviews the ESG integration approach of each investment group. The Working Group is chaired by the Global Head of Sustainable Investing, Jennifer Wu, and its members are senior portfolio managers, research analysts and investment stewardship specialists. The Working Group's review is used to form a recommendation that the J.P. Morgan Asset Management Sustainable Investing team submits to the Sustainable Investing Oversight Committee (SIOC), which is responsible for approving or rejecting the ESG integrated status of each investment group. The committee was established in 2021 as part of a comprehensive review of our sustainable investing governance practices.

The ESG & Climate Research Working Group, alongside the Sustainable Investing team, has developed a 10-metric framework to evaluate ESG integration progress at each critical step of a typical investment process. Investment groups are required to present their ESG integration approach to the Working Group.

Our process for determining which investment groups are ESG integrated has continued to evolve and improve with the development of the framework (see 10-metric framework for ESG integration on the next page). To receive ESG integrated status under our current methodology, the investment groups must receive an aggregate score of at least 30 points out of a total of 50 and, for each metric, receive at least a 2 on a scale of 1 to 5. If the investment group does not meet this threshold, the Working Group will discuss the improvements that need to be made before it can reapply at a later stage. For those that are successful, the score and feedback are used to form a recommendation that the Sustainable Investing team submits to SIOC for formal approval of the ESG integrated status.

The systematic consideration of ESG metrics in the investment process also informs our investment stewardship activity. Where an analyst identifies a financially material E, S or G issue within a company, the investment team, in close collaboration with the Investment Stewardship team, may wish to trigger, or extend, an engagement or may inform a proxy voting decision. The results of this engagement can be tracked over time using Research Notes (as defined on page 9) within our investment management tool, Spectrum™. This feedback loop, from both a bottom-up materiality focused and top-down principle-based perspective, is designed to allow our views on the companies within our investable universes to remain current as well as be complemented by additional layers of insight as a result of direct engagement. Moreover, stewardship also plays a role in helping our ESG integration process to remain effective and accountable. Investment stewardship and engagement sit explicitly within the "Research and Investment Management, Investment Due Diligence" criteria within the 10-metric framework for ESG Integration, as depicted below.

Our ESG integration process continued

J.P. Morgan Asset Management 10-metric framework for ESG integration

	Metrics	Sub questions
Research and Investment Management	1. Research analyst/ investment due diligence	● Is ESG integration an integral part of the research or investment due diligence process? ● Are analysts engaging on issues related to ESG with companies and leveraging ESG information for analysis?
	2. Consideration at portfolio management/ investment decision level	● Is ESG fundamental to the investment decision-making process? ● Do ESG factors lead to a reweighting of the portfolio? ● Do the portfolio managers and/or investment committee override or add insights to analysts' ESG analysis?
	3. Breadth of third-party ESG data	● Is independent, external or third-party data incorporated into ESG analysis? How is this data used? ● Is the team relying on a single data source, or are different third-party data sources leveraged and used for verification?
	4. Level of proprietary research conducted	● How much in-house research has been conducted in conjunction with available third-party data? Is there a heavy reliance on external/third-party data? ● Is there any evidence of ESG scores created by the team? ● Where relevant, does the team meet with companies to engage on issues related to ESG?
	5. Company/sector coverage	● Has the team considered sector differences when integrating ESG and thought about ESG factors' financial materiality? ● If so, how is the team implementing this?
Documentation	6. Documentation of integration methodology	● Is there documentation setting out how ESG is integrated? ● Is there a specific methodology or a framework being leveraged, and has this been shared within the team?
	7. Documentation of proprietary data and research methods	● Is there any documentation of proprietary data and research? ● Are there any case studies/examples that demonstrate this? ● Is ongoing corporate engagement part of the process, and how is that documented, especially with respect to engagement activities on highlighted financially material ESG factors?
Monitoring	8. Risk management and oversight	● Is there clear assignment of roles and responsibilities in the ESG integration process to ensure risk management and oversight are in place? ● What is the risk management process of ESG integration?
	9. Systematization	● Is the process implemented using a centralized system such as Spectrum™ so it can be leveraged by the entire investment engine? ● Is the ESG integration information shared across the team, not just within a limited group of people?
	10. Ongoing monitoring and maintenance	● How does monitoring of ESG integration take place? ● Is there a forum to discuss improvements to, and enhancements of, ESG integration?

Source: J.P. Morgan Asset Management Sustainable Investing Team and ESG & Climate Research Working Group.

Our ESG integration process continued

Although JPMAM's ESG integration validation framework and development of supporting tools and analytics is led by specialists from the centralized Sustainable Investing team as well as the ESG & Climate Research Working Group, the ownership of implementation and execution lies with investment teams. ESG determinations may not be conclusive, and securities of certain companies or issuers may be purchased, retained or sold by portfolio managers for reasons other than their ESG assessment.

Moreover, given the wide range of strategies we offer and the regional and sectoral diversity of our portfolio holdings, we emphasize that ESG integration does not mean investment in certain sectors or countries is prohibited. Importantly, systematic ESG integration should never result in sacrificing portfolio returns, making major changes to the investment process or taking into account immaterial ESG metrics at the expense of ignoring other factors.

The 10-metric framework not only offers guidance on how to evaluate a particular investment group but can also be used to measure how approaches have evolved and adapted over time.

In 2022, JPMAM received the highest available rating of 5 for its response to the Investment and Stewardship Policy module of the UN Principles for Responsible Investment (UNPRI) survey based on information provided for reporting year 2021 (data as of end of 2020). UNPRI are a set of voluntary and aspirational principles; signatories to the Principles are required to report publicly on their responsible investment activities each year. ESG integration is an explicit factor in this assessment. The module is designed to provide information concerning each signatory's overarching approach to responsible investment, including governance, responsible investment policies, objectives and targets, the resources that are allocated to responsible investment and the incorporation of financially material ESG issues into asset allocation.[4] Combining our ESG research capability with the diversified experience and skill of our investment teams and the expertise of our investment stewardship specialists gives us a deep understanding of the risks and opportunities facing different sectors, industries and geographies. We believe that this collaborative, well-resourced approach enables us to take an effective approach to both ESG integration and investment stewardship. While we follow an overarching process to determine whether an investment group is deemed to be ESG integrated, our ESG integration processes for investment groups are designed to allow investors and stewardship specialists to take into account specific risks and nuances as applicable. For example, in the case of strategies investing in real assets, many of the risks surrounding these assets depends on physical location and regulatory jurisdiction.

[4] The UNPRI survey includes modules that solicit information from signatories, including J.P. Morgan Asset Management, on topics including an overall Investment Stewardship & Policy module and a number of modules covering individual asset classes, such as Listed Equity, Fixed Income and Infrastructure. Information is self-reported by signatories, including J.P. Morgan Asset Management, and was not audited by any party, including J.P. Morgan Asset Management, independent public accounting firms or UNPRI. Information on the UNPRI 2021 assessment methodology is available here, along with FAQs on the 2021 reporting cycle here. While J.P. Morgan Asset Management looks to data inputs that it believes to be reliable, J.P. Morgan Asset Management cannot guarantee the accuracy, availability or completeness of its proprietary system or third-party data. Under certain of J.P. Morgan Asset Management's investment processes, data inputs may include information self-reported by companies and third-party providers that may be based on criteria that differs significantly from the criteria used by J.P. Morgan Asset Management, which often include forward looking statements of intent and are not necessarily fact-based or objectively measurable. In addition, the criteria used by third-party providers can differ significantly, and data can vary across providers and within the same industry for the same provider. Such data gaps could result in the incorrect, incomplete, or inconsistent assessment of an ESG practice and/or related risks and opportunities.

Resources we share across the firm

System

In addition to the portfolio management teams who use ESG integration as part of their investment processes, we have a suite of technology and research systems to enable the sharing of resources and insights across JPMAM. Our extensive research capabilities allow us to conduct in-depth research into the ESG profile of many of the companies in which we invest. The ability to flag risks and opportunities early on through our research resources means that we can conduct timely and effective engagement on financially material ESG issues that arise. Research is therefore a key part of both ESG integration and stewardship, enabling us to maintain oversight of a company's activities and engage where we feel it would be beneficial to our clients.

J.P. Morgan Spectrum™, launched in 2017, is J.P. Morgan Asset Management's common technology platform, built by combining our leading capabilities across the organization. The platform is designed to optimize internal communication by connecting sales, investment and client service functions.

The platform standardizes and enhances our extensive research, portfolio construction and risk management capabilities. Spectrum™ is a centralized source for all critical data sets that helps provide consistency of portfolio information throughout the full lifecycle.

The Spectrum™ platform strengthens J.P. Morgan Asset Management's investors' collaboration and accelerates the inclusion of our best ideas into solutions for our clients. It also supports investment decision making with integrated analytics, providing the ability to view and manage risks across multiple disciplines, enabling us to build stronger portfolios.

Spectrum™ combines more than 35 operational oversight tools into an integrated suite with higher automation, integrated workflows and timely alerts. It also enables our client-facing specialists to deliver a high-quality client experience – from onboarding through to portfolio management and reporting.

ESG analysis and research are embedded in Spectrum™ and shared across investment teams where appropriate. Spectrum™ thereby enables greater collaboration, as expertise can be leveraged across the J.P. Morgan Asset Management platform, subject to information barriers. For example:

- **Qualitative Research Notes**: We share qualitative ESG assessments of companies on Spectrum™ via an application called "Research Notes." Portfolio managers, as well as the Sustainable Investing team, are able to record relevant ESG information arising from a company meeting or research, while specific environmental, social and governance issues can be flagged through a tagging facility to alert other system users. For example, a sector research analyst within Global Equities can view the ESG Research Notes of a company that a Global Fixed Income, Currency and Commodities (GFICC) credit analyst wrote, and vice versa, allowing investment professionals to access the latest information and exchange views, subject to any required informational barriers. In addition, the engagement notes written by the Investment Stewardship team can be viewed by the Global Equities and GFICC investment teams. Where an ESG metric is deemed to be financially material, analysts as well as the investment stewardship specialists are expected to identify and capture this through the engagement process and bring it to the attention of other users.

Resources we share across the firm continued

Illustration of Spectrum™ “Research Notes” dashboard

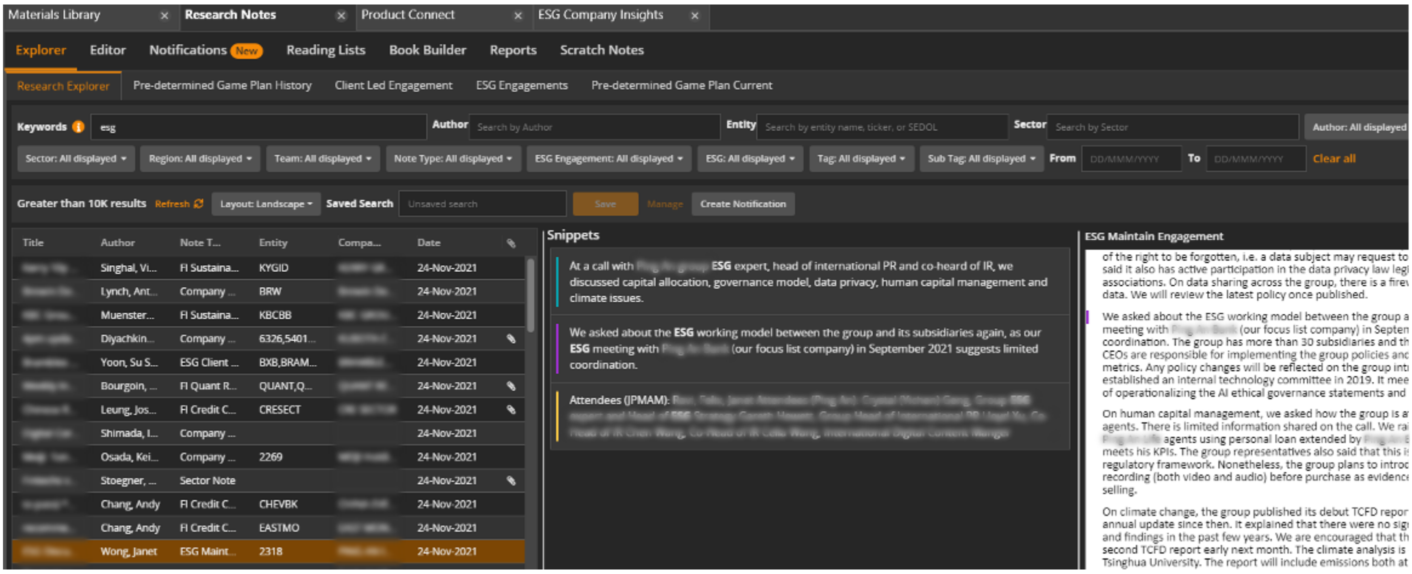
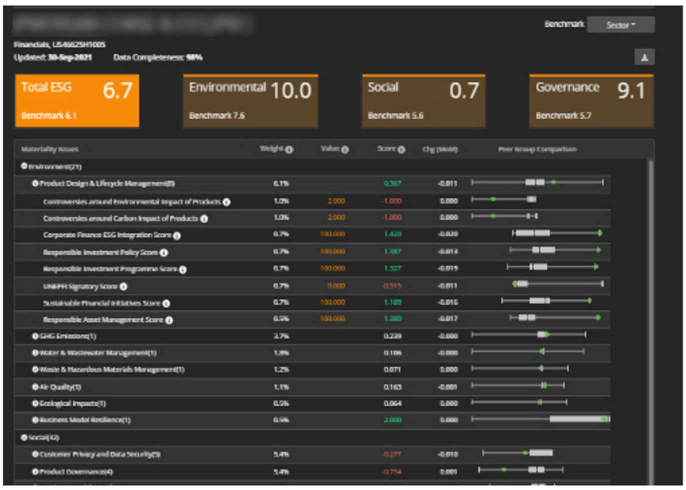


Image source: J.P. Morgan Asset Management Spectrum™.

- **Quantitative ESG data:** Another pivotal update within Spectrum™ was the addition of an application called “ESG Company Insights.” Essentially, this is where, subject to any required information barriers, investment teams can view the JPMAM Quantitative ESG Score, as well as the underlying metrics from which the score is derived. Investors are also able to access a historical view of the overall JPMAM Quantitative ESG Score over the last five years. Illustration of Spectrum™ “ESG Company Insights” dashboard Image source: J.P. Morgan Asset Management Spectrum™.

- **Portfolio management systems:** Spectrum™ is also used as a portfolio management tool by many investment teams. Within the respective system, both the proprietary ESG assessment and third-party data are embedded so that the information can be referenced to inform investment decisions.

Illustration of Spectrum™ “ESG Company Insights” dashboard



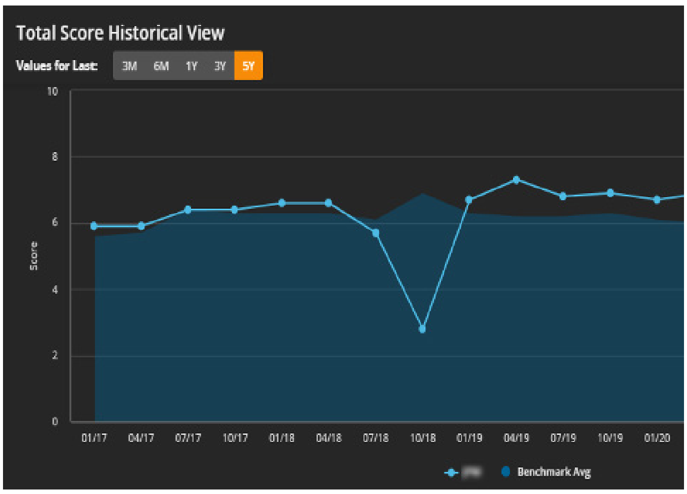


Image source: J.P. Morgan Asset Management Spectrum™. For illustration purposes only.

Resources we share across the firm continued

People

J.P. Morgan Asset Management's approach to investing builds on our long heritage of active management and stewardship. A key strength of our investment process is our in-house research capabilities, on both a fundamental and a quantitative basis.

- **Research capabilities of our investment teams**: ESG information is integrated systematically in actively managed strategies that are determined to be ESG integrated, leveraging the expertise of over 1,000[5] investment professionals through proprietary research, engagement and portfolio construction. Subsequently, ESG metrics are monitored on an ongoing basis for risk management purposes. In particular, J.P. Morgan Asset Management has over 300[5] experienced career research analysts – situated globally and organized by sector – whose knowledge and experience provide an invaluable research resource. They offer in-depth specialist analysis of companies within their particular sector and region.
- **Central Sustainable Investing team**: As of March 1, 2023, we have 41 dedicated specialists supporting ESG integration from the perspectives of proprietary ESG and climate research, investment stewardship and products and solutions innovation.
- **Dedicated Investment Stewardship team**: As of March 1, 2023, we have 15 investment stewardship specialists globally who work in collaboration with our portfolio managers and research analysts to direct interactions with companies/issuers across our six Investment Stewardship Priorities and the specific research frameworks utilized by each asset class.

ESG data[6]

To the extent that J.P. Morgan Asset Management uses third-party providers, the criteria and rating systems used by third-party providers can differ significantly. There is no standard ESG scoring system and the methodology and conclusions reached by third-party providers may differ significantly from those that would be reached by other providers or J.P. Morgan Asset Management. In addition, evaluations by third-party providers may be based on data sets and assumptions that may be insufficient, of poor quality or contain biased information.

At the same time, the ongoing improvement in the quantity and quality of ESG-related data available to investors has enabled us to introduce the next generation of proprietary ESG data – a globally consistent, JPMAM Quantitative ESG Score that is available to our portfolio management and research analyst teams through Spectrum™. The purpose of the score is to provide portfolio managers and research analysts with useful ESG information they might not otherwise have access to, in order to facilitate ESG integration and investment stewardship. The score provides another reference point to enhance the consideration of material ESG risks and opportunities in active investment processes. For most strategies, scores are not a definitive driver of investment decision making, and portfolio managers may continue to hold low-scoring securities for reasons unrelated to their ESG profile.

The score provides a data solution that allows internal users to drill down into indiviwdual data points, such as greenhouse (GHG) emissions and supply chain related metrics, in order to understand the specific risks and opportunities that individual companies face. This enhanced visibility means that analysts and our Stewardship team are better able to pinpoint issues with greater accuracy and have an improved ability to monitor improvements – or lack thereof – in company behavior and performance.

[5] As of 31 December 2022.

[6] While J.P. Morgan Asset Management looks to data inputs that it believes to be reliable, J.P. Morgan Asset Management cannot guarantee the accuracy, availability or completeness of its proprietary system or third-party data. Under certain of J.P. Morgan Asset Management's investment processes, data inputs may include information self-reported by companies and third-party providers that may be based on criteria that differs significantly from the criteria used by J.P. Morgan Asset Management, which often include forward looking statements of intent and are not necessarily fact-based or objectively measurable. In addition, the criteria used by third-party providers can differ significantly, and data can vary across providers and within the same industry for the same provider. Such data gaps could result in the incorrect, incomplete, or inconsistent assessment of an ESG practice and/or related risks and opportunities.

Resources we share across the firm continued

The JPMAM Quantitative ESG Score assesses the extent to which companies face and manage financially material ESG risks and opportunities. This score is evolving from leveraging third-party ESG data to instead draw on granular, outcomes-focused data, making increased use of the significant increase in ESG disclosures and data available over recent years. Having been developed in collaboration with the Sustainable Investing team's ESG & Climate Research Working Group, the score also leverages our data science capabilities, such as machine learning, algorithms and natural language processing, to enrich our understanding of ESG metrics beyond corporate disclosures, at scale.[7]

- The JPMAM Quantitative ESG Score capability aims to enhance our understanding of what ESG information is available for research and investment decision-making and provides a consistent view of the financially material ESG metrics within each sector. This helps J.P. Morgan Asset Management to manage the associated risks and opportunities.
- The score draws on granular data. This includes a company's management of natural resources and environmental impacts, effectiveness of its human capital development programs, supply-chain risks, customer welfare and risk management. For example, we leverage company disclosures, third-party estimates of environmental impact, data science signals, which make use of our in-house natural language processing tool, ThemeBot, and alternative data sets provided by external vendors.[8] We use a number of different data providers in order to obtain as comprehensive and varied a set of information as possible with which to measure ESG aspects. We assess companies using a wide range of data inputs, combined with fundamental analysis. While we look to data inputs that we believe to be reliable, we cannot guarantee the accuracy of our proprietary system or third-party data.
- The score harnesses our expertise and experience in active asset management and ESG integration. For example, the weights we attach to different ESG issues reflect the insights of hundreds of sector analysts who have many years' experience identifying financially material ESG metrics and who understand the specific challenges within different industries and regions.
- Our data science capabilities, such as machine learning algorithms and natural language processing, can generate useful insights by processing unstructured, alternative data to measure specific ESG issues and complement companies' self-reported and/or third-party ESG data.

A trend that has continued is the increasing availability and quality of ESG data, which is supported by governments and regulatory bodies. Globally, more organizations and governments are encouraging or mandating compliance with recommendations laid out by the Task Force on Climate related Financial Disclosures (TCFD). In addition, the recently created International Sustainability Standards Board (ISSB) aims to establish a common set of base guidelines for data disclosure on ESG issues.

However, corporate ESG disclosure remains a challenge. Companies across a wide sectoral and geographic spectrum are increasingly being scrutinized on data points such as Scope 3 GHG emissions and employee satisfaction ratings, as well as the lack of disclosure of these data points. In particular, emerging markets are an area where notable progress on disclosure is being made. This is why engagement is an important element of ESG integration at J.P. Morgan Asset Management, as we encourage more companies to improve disclosure. As visibility of companies' performance on key ESG indicators improves, it will become possible to make more informed and accurate forward-looking financial materiality assessments and investment decisions.

[7] While J.P. Morgan Asset Management looks to data inputs that it believes to be reliable, J.P. Morgan Asset Management cannot guarantee the accuracy, availability or completeness of its proprietary system or third-party data. Under certain of J.P. Morgan Asset Management's investment processes, data inputs may include information self-reported by companies and third-party providers that may be based on criteria that differs significantly from the criteria used by J.P. Morgan Asset Management, which often include forward looking statements of intent and are not necessarily fact-based or objectively measurable. In addition, the criteria used by third-party providers can differ significantly, and data can vary across providers and within the same industry for the same provider. Such data gaps could result in the incorrect, incomplete, or inconsistent assessment of an ESG practice and/or related risks and opportunities.

[8] Where J.P. Morgan Asset Management uses the proprietary system, any changes to an algorithm or underlying assumptions may have unintended consequences, which could have an adverse effect on the performance of a strategy. Algorithms may not perform as intended for a variety of reasons, including, but not limited to, incorrect assumptions, changes in the market and changes to data inputs. In addition, the data sets that the proprietary system processes may be insufficient, of poor quality or contain biased information. Although J.P. Morgan Asset Management obtains data and information from third-party sources that it considers to be reliable, J.P. Morgan Asset Management does not guarantee the accuracy and/or completeness of any data or information provided by these sources.

Resources we share across the firm continued

Ongoing monitoring: ESG integration

J.P. Morgan Asset Management undertakes ongoing monitoring to review the ESG integration work of investment groups – specifically, the application of sustainability risks and financially material ESG metrics within their ESG integrated strategies. Our Sustainability Risks Policy summarizes the integration of sustainability risks in the investment process. This forms part of an existing, regular investment review process.

For example, the Investment Director teams oversee performance and risk oversight of portfolio management. They do this to maintain discipline around investment objectives and process in the context of client objectives or fund guidelines, performance, risk position and ESG profile. The Investment Director teams monitor ESG, quantitatively and qualitatively, as part of their quarterly review meetings.

Any material findings from the ongoing monitoring process will be escalated to the CIOs of the relevant asset class using the existing investment oversight/escalation process. We have similar regular monitoring processes in other asset classes.

In addition, AM Independent Risk has the Sustainable Investing Risk Oversight framework to monitor the consideration of financially material ESG metrics in the investment process of our active strategies. This process has the objective of identifying investment strategies with ESG metrics scores that are materially different versus their benchmark and understanding the rationale for such differences. The analysis will be shared with AM Risk and AM CIOs on a quarterly basis. This process aims to increase the transparency of specific exposures or strategies with ESG ratios that may be inconsistent with the strategy's name, investment objective or disclosures. This process is not expected to limit an exposure identified as an outlier or to trigger changes in positions that would negatively impact portfolio returns.

Refining our process through review from multiple dimensions

Given the evolving nature of ESG data, technology and research capabilities, we encourage investment teams to continue to improve their ESG Integration process. We follow an approach of "Demonstrate, Review, Approval and Implementation".

Investment groups present to our ESG & Climate Research Working Group as part of the ESG integration recertification approach. For consistency this is done against a 10-metric framework and is conducted on at least a three-year cycle. Following the introduction of these recertification reviews, the investment groups are asked to provide updates on any significant changes and demonstrate the enhancements made since the previous vetting/review session – a process we started in 2021. The ESG & Climate Research Working Group will provide feedback to investment groups as part of maintaining a good standard of integration practices while continuously seeking to enhance their process. Should the ESG & Climate Research Working Group have any concerns or suggestions, these will be communicated to the respective investment groups as well as the team in charge of ongoing monitoring for improvement. The feedback and outcome of the periodic review by the ESG & Climate Research Working Group will be shared with SIOC for formal approval.

Each investment group applies ESG integration according to their own method and groups are regularly monitored by their respective Investment Director or equivalent teams.

In 2022, investment groups including Infrastructure, Infrastructure Debt, Macro Strategies, Global Transport, Private Equity Group, JPMAAM, Alternative Beta, Thematic and Equity Strategic Beta were reviewed for recertification by the ESG & Climate Research Working Group. Our proprietary JPMAM Quantitative ESG Score supports investment groups' quantitative ESG analysis and help to inform qualitative assessments of individual companies.

For more information on our approach to ESG Integration, please contact your J.P. Morgan Asset Management representative.

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