

# ESG integration at J.P. Morgan Asset Management

October 2024

The following has been excerpted from JPMAM's 2023 Investment Stewardship Report. Except as otherwise provided, this information is as of December 31, 2023. This information has not been updated, verified or audited.

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# Introduction

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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 J.P. Morgan Asset Management (“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. Except for certain strategies that use ESG integration as part of their investment process in addition to other sustainable investing strategies, ESG integration by itself does not change a strategy’s investment objective, exclude specific types of companies or constrain a strategy’s investable universe. ESG integration is dependent upon the availability of sufficient ESG information relevant to the applicable investment universe. ESG factors are not considered for 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.

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. Below you will find our approach to ESG integration for a variety of our asset classes. Note, the method by which an investment group performs ESG integration is consistent across geographies.

Active ownership is a key component of both our standard investment processes and our commitment to ESG integration. 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 engagement with individual companies, 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.

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.

# Introduction continued

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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 the 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 multi-factor framework to validate the approach applied by the investment groups for the respective strategy.

We also offer a growing range of products designed for clients who 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.<sup>1</sup>

**Please note:** ESG determinations may not be conclusive. Securities of companies or issuers may be purchased and retained that may be negatively impacted by such factors while the adviser may divest or not invest in securities of issuers that may be positively impacted by such factors. The effect of ESG integration on a financial product'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 managers' investable universe, nor does it imply that a product is marketed or authorized as an ESG product in any jurisdiction where such authorisation 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.

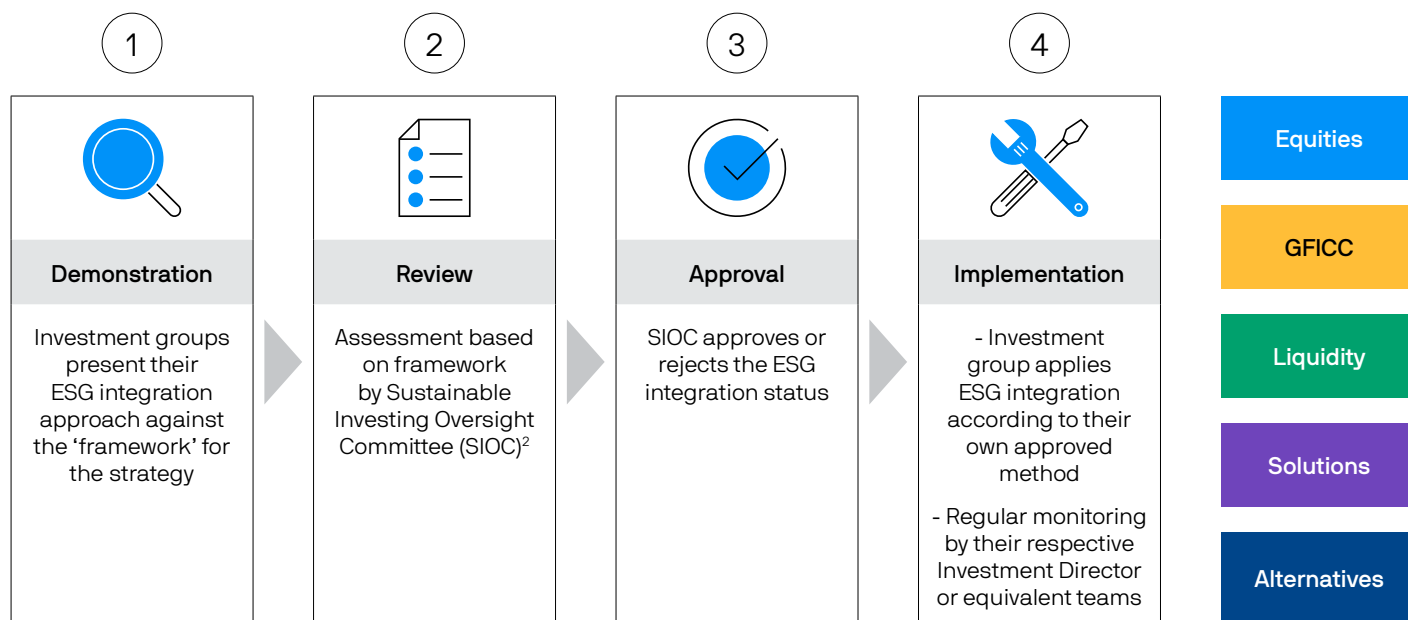
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<sup>1</sup> For further details on strategies that are ESG integrated, please reach out to your local JPMAM representative.

# Our ESG integration process

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

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



Source: J.P. Morgan Asset Management, as of December 31, 2023. Provided to illustrate the current governance process, not to be construed as research or investment advice. Not all investment strategies are ESG integrated.

<sup>2</sup> Prior to the fourth quarter of 2023, JPMAM's governance process contemplated a SIOC review of ESG integration at the investment group level and did not require review of individual strategies by SIOC. During the fourth quarter of 2023, JPMAM enhanced its ESG integration governance process to require all new strategies to be reviewed individually by SIOC prior to their presentation to JPMAM's product steering committee ("PSC") in order for such strategy's investment process to be considered ESG integrated. SIOC was established in 2021 as part of a comprehensive review of our SI governance practices, with a particular emphasis on structures for oversight of investment stewardship and ESG integration. Prior to 2021, a working group known as the Sustainable Investment Leadership Team determined ESG integration.

# Our ESG integration process continued

As described in the chart on the previous page, the Sustainable Investing Oversight Committee (SIOC) will review and if appropriate approve the ESG Integration status of the put forward strategy.

Our process for determining which investment groups are ESG integrated has continued to evolve and improve with the development of the framework.

## J.P. Morgan Asset Management 6-metric framework for ESG integration

Metrics		Sub questions
Research and Investment Management	1. Access to ESG Metrics & Indicators as part of Research & Investment Process	<ul style="list-style-type: none"> <li>Are internal and/or external ESG metrics and indicators available to research and portfolio managers? If yes, please provide examples.</li> <li>Please describe the mix of internal and/or external data sources and due diligence conducted and/or selection criteria used on external data sources?</li> </ul>
	2. Research Analyst, Portfolio Management & Investment Decision Considerations	<ul style="list-style-type: none"> <li>Is ESG fundamental to the investment decision-making process?</li> <li>Do ESG factors lead to a reweighting of the portfolio?</li> <li>Do the portfolio managers and/or investment committee override or add insights to analysts' ESG analysis?</li> </ul>
	3. Company Engagement	<ul style="list-style-type: none"> <li>Please describe the role of company engagement on financially material ESG factors as part of the research and investment due diligence process?</li> <li>How is ongoing company engagement related to ESG topics documented, monitored and assessed, especially with respect to progress and success of the activities?</li> </ul>
Documentation	4. Documentation of ESG Integration Information	<ul style="list-style-type: none"> <li>Are there desk procedures that outline how ESG is integrated across the Investment team? If so, please describe.</li> <li>Are there other documents (e.g. investment process/prospectus) that discuss the ESG integration process?</li> </ul>
Monitoring	5. Monitoring	<ul style="list-style-type: none"> <li>Is the strategy subject to in-business first line risk review, including discussion of ESG metrics and indicators? If so, please outline the frequency and teams involved.</li> </ul>
	6. Oversight	<ul style="list-style-type: none"> <li>What escalation oversight structure is in place?</li> <li>Is evidence of escalation and discussion available?</li> </ul>

Source: J.P. Morgan Asset Management Sustainable Investing team and ESG & Climate Research Working Group. The framework above replaced J.P. Morgan Asset Management's 10-point framework as part of enhancements to its governance process during the fourth quarter of 2023.

# Our ESG integration process continued

Although JPMAM's ESG integration validation framework is led by the SIOC, 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. Please refer to the asset class level sections in the following pages for details about how ESG integration works in practice at various asset classes.

The systematic consideration of financially material ESG metrics in the investment process also informs our investment stewardship activity. Where an analyst identifies a financially material environmental, social or governance 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 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 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 6-metric framework for ESG Integration, as depicted above.

In 2023, JPMAM received its PRI Rating for the 2023 reporting period (data as of the end of 2022). Further details on our PRI results can be found on our website.<sup>3</sup> UNPRI are a set of voluntary and aspirational

principles; signatories to the principles are required to report publicly on their responsible investment activities periodically. 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.

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.

## Resources we share across the JPMAM 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

<sup>3</sup> Our PRI results can be accessed here: <https://am.jpmorgan.com/content/dam/jpm-am-aem/emea/regional/en/communications/lux-communication/jpm-pri-scorecard-per-ce-en.pdf>.

The UNPRI survey includes modules that solicit information from signatories, including J.P. Morgan Asset Management, on topics including an overall Policy Governance & Strategy 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 2023 assessment methodology along with FAQs on the 2023 reporting cycle are included in the following links: [2023 Reporting Framework: Overview and Structure Guide](#) and [FAQ Reporting 2023](#). UNPRI scores are not reliable indicators of current and/or future results or performance of underlying assets.



# Our ESG integration process continued

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 single 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 multiple 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.' Investors, 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.

In addition, the engagement notes written by the Investment Stewardship team can be viewed by the global equities and GFICC investment teams. ESG metrics that are deemed to be financially material are highlighted through the engagement process.

- **Quantitative ESG data:** Investment teams can view the JPMAM Quantitative ESG Score within Spectrum™, as well as the underlying metrics from which the score is derived subject to any required information barriers. Investors are also able to access a historical view of the overall JPMAM Quantitative ESG Score over the last five years.
- **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. For further details on this, please refer to individual asset class sections in the following pages.



# Our ESG integration process continued

## Illustration of Spectrum™ “ESG Company Insights” dashboard

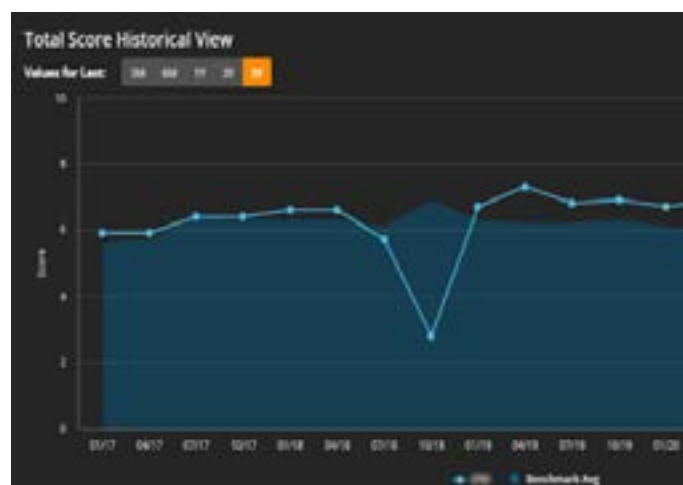


Image source: J.P. Morgan Asset Management Spectrum™.

## 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 into actively managed strategies leveraging the expertise of over 1,000 investors 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 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 July 31, 2023, we have 43 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 July 31, 2024, we have 20 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.

# Our ESG integration process continued

## ESG data<sup>4</sup>

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 third-party providers or J.P. Morgan Asset Management. In addition, evaluations by third-party providers may be based on data sets and assumptions that may, at times, 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 as the integration of ESG data is one element alongside other factors considered in our investment processes.

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. Please note that investment teams are not required to use the JPMAM Quantitative ESG Score as part of their investment process and not all JPMAM investment teams use the JPMAM Quantitative ESG Score as part of their ESG integration process.

The score provides additional insights that allow internal users to drill down into individual 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 company behaviour and performance.

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 and at scale.

- 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.

<sup>4</sup> 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 differ 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.

# Our ESG integration process continued

- 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.<sup>5</sup> 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 2024, we expect to see greater adoption of the International Sustainability Standards Board's (ISSB) sustainability and climate disclosure standards, with the TCFD recommendations having been fully integrated into the ISSB's standards.

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 disclose on their ESG efforts. 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 over time.

## 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 system.

For example, the Investment Director teams in equity, global fixed income, currency & commodities and multi-asset solutions oversee performance and risk oversight of portfolio management. They do this to maintain discipline around investment objectives and processes in the context of client objectives or fund guidelines, performance, risk position and ESG profiles. 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 regular monitoring processes in the global liquidity and alternatives solutions, which are tailored to the nature of their asset class. For more details, please see the relevant asset class sections in the following pages.

<sup>5</sup> 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.

# Our ESG integration process continued

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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 from their benchmark and understanding the rationale for such differences. The analysis will be shared with AM Risk and AM CIOs periodically. 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. Financially material ESG factors are integrated into investment processes in a manner consistent with the underlying investment style. However, JPMAM's governance process for oversight of ESG integration is uniform. We follow an approach of 'Demonstrate, Review, Approval and Implementation'.

Investment groups present their ESG integration approach against the 'framework' for the strategy to the SIOC. For consistency, this is done against a multi-factor framework. After the assessment, the SIOC approves or rejects the ESG integration status.

Prior to the fourth quarter of 2023, JPMAM's governance process contemplated SIOC review of ESG integration at the investment group level but did not require a review of individual strategies by SIOC. During the fourth quarter of 2023, JPMAM enhanced its ESG integration governance process by requiring all new strategies to be reviewed individually by SIOC prior to their presentation to JPMAM's product steering committee (PSC) in order for such strategy's investment process to be considered ESG integrated. SIOC was established in 2021, as part of a comprehensive review of our sustainable investment governance practices, with a particular emphasis on structures for oversight of investment stewardship and ESG integration. Prior to 2021, a collection of working groups including the

ESG & Climate Research Working Group determined ESG integration status. Historically, such working groups were referred to collectively as the Sustainable Investment Leadership Team ('SILT').

As of the fourth quarter of 2023, ESG integration is monitored by the Investment Directors, or equivalent teams, as part of confirming that a strategy's investment process continues to be ESG integrated in accordance with the strategy's disclosures and documentation.

# Global Equities

## Research/due diligence

A key strength of our investment process is our in-house research, produced by over 100 fundamental and quantitative equity analysts. Our ESG views on specific companies are the product of proprietary research and one-on-one engagements with companies. We also draw on data from external providers. These ESG views are one of multiple informational inputs into the investment process, alongside data on traditional financial factors, and are not the sole driver of decision-making.

Our research framework uses several internally developed processes to assess the financially material ESG credentials of any business:

- An ESG Checklist applies the same detailed questions to the approximate 2,500 companies under coverage, globally. This generates the JPMAM Fundamental ESG Score. The ESG checklist asks 12 questions specifically addressing environmental considerations, 14 on social and 14 on governance. Analysts across equities and fixed income collaborate on the ESG Checklist, with questions about governance tailored to reflect the investment angles of each asset class. The checklist includes both negative and positive questions, as well as a severity assessment. 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.

The Investment Stewardship team work closely with research analysts to update the ESG Checklist periodically, with the aim of making it more suitable for the purpose of ongoing monitoring and targeted corporate engagement. For example, new questions around supply chain environmental risks, workforce diversity and disclosure on social and diversity were added in 2022, as well as detailed guidance as to how analysts should think about responding to these. This helps to identify leaders and laggards in the key ESG issues for each sub-sector and brings more depth to our ongoing ESG research while serving as helpful guidance for more focused ESG engagement with companies.

In addition, analysts conduct deep-dive research into ESG topics identified as material to our investment process. Among the topics examined are flaring in U.S. oil fields, the environmental impact of fast fashion in Europe and corporate governance in insurance companies in Asia.

- The JPMAM Quantitative ESG Score is a proprietary, data-driven ESG score. This score draws on granular, outcomes-focused data, making full use of the significant increase in ESG disclosures and available data over recent years. The score also leverages our data science capabilities, such as machine learning, algorithms and natural language processing to enrich our understanding of ESG factors beyond corporate disclosures, at scale. For further details, please see the section on *ESG data*.
- A fundamental materiality framework across 2,000+ companies. The basis of 'materiality' is to identify the ESG issues that are most likely to have a financially material negative impact on a company were it to be mismanaged, or conversely, the material positive impact in the case of good management. Across more than 50 different sub-industries, financially material issues are identified by research analysts within our 100+ strong global network, who come together to share perspectives with their sector group peers. Each company under coverage receives a score from 1 (best) to 5 (worst) on each of the material issues that have been identified. The implementation of this research framework has deepened our understanding of what best practices look like for sustainability, and we use this template to engage with companies. However, the score does not define or limit a team's investment options.
- A strategic classification framework provides a rating (Premium, Quality, Standing and Challenged) for stocks, based on our judgment of the quality of the business, including financially material ESG issues.

# Global Equities continued

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## Engagement

Active engagement with companies is an integral part of our approach to investment and ESG. We use it not only to understand how companies consider issues related to ESG but also to try to encourage companies to develop and adopt best practices, for the purpose of enhancing returns for our clients. Engagement is a collaboration between portfolio managers, research analysts and the Investment Stewardship team. Each brings a different perspective to our interactions with companies across our six Investment Stewardship Priorities and our research framework. Alongside the top-down guidance provided by the six Investment Stewardship Priorities, our bottom-up research framework captures the ESG insights of our investors through the research elements detailed in the previous section. Our 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 involve the Investment Stewardship team.

Methods of engagement typically include regular meetings, video conferences or email exchanges with senior executives and non-executive management. Proxy voting is also a valuable means of communication. Where our concerns are not adequately addressed by our initial engagement, we will consider an escalation of our approach using the various means at our disposal. Decisions to escalate will always be made on a case-by-case basis. More formal approaches include private meetings with the Chair or other board members, formal letters to the Chair and board or collaborative engagement.



# Global Fixed Income, Currency and Commodities (GFICC)

## Research/due diligence

We utilize a disciplined and systematic process to evaluate and identify attractive investment opportunities through the analysis of fundamental, quantitative and technical investment factors. Proprietary research forms the foundation of our approach to ESG integration, with over 70 career research analysts dedicated to thoroughly analyzing every aspect of investments, including financially material ESG factors. As part of this in-depth fundamental research, credit analysts assess the impact of ESG risks and opportunities on issuers' current and future cash flows. If the analysis of ESG factors shows that they are financially material and relevant, analysts will reflect this view in their assessments.

Our proprietary research process incorporates inputs such as company regulatory filings, annual reports, company websites, direct communication with companies and government issuers, media, third-party research and proprietary J.P. Morgan Asset Management research. Other inputs include sell-side investment research and reports from industry groups.

Our fixed income sector teams have developed quantitative ESG rating systems that capture the nuances within their specific markets and align with their existing investment processes. These include an ESG Checklist for the corporate bond market, country ESG rankings for both developed and emerging market sovereign bonds and systematic identification of ESG leaders and laggards in the securitised space. These scoring frameworks serve as useful tools for aggregating the numerous ESG metrics for each issuer and allow for comparison across issuers in the universe. Importantly, the scores are applied to portfolios in a judgmental, not formulaic, fashion and they are accompanied by analysts' qualitative research.

Within Spectrum™, our centralized technology platform, analysts also have access to third-party ESG data for each issuer. This data is displayed in various ways to track individual environmental, social and governance scores, as well as to observe changes over time. This third-party data serves as a supplement to our analysts' views. Our analysts form their own opinions based on their research and judgment, and this is articulated in written research reports, which contain specific sections for ESG comments when material and relevant.

ESG analysis and research are visible on Spectrum™ and shared across all investment teams, including fixed income and equities, enabling greater

collaboration and leverage across the J.P. Morgan Asset Management platform.

## Engagement

As bondholders, although we do not typically carry voting rights, we believe our role in providing financing to issuers means we have the ability to advocate for and influence positive change. As such, we engage on a wide range of financially material ESG issues with a variety of market participants. Our large global scale and status within the asset management industry allow us significant representation across asset classes. We often conduct engagement in conjunction with members of the Investment Stewardship team; we also collaborate with our equity colleagues to engage with companies to which we have exposure in their bonds as well as their equity. We participate in many meetings with issuers from across the fixed income investment universe (companies and countries) every year.

The C-suite relationships that our research analysts have developed over their careers, enable us to engage regularly with company management and representatives of government issuers on matters that are material to our credit assessment, including financially material ESG factors. We also regularly meet with originators of securitised products and regulators. During these engagements, research analysts raise issues they have identified as material and relevant, including ESG concerns, in an effort to positively influence issuers to adopt best practices.

We also aim to contribute to positive change by participating in industry forums and regularly consulting with third-party data providers. For instance, we have board representation on industry bodies, such as the European Leveraged Finance Association, allowing us to encourage closer cooperation among issuers on key ESG initiatives and to advocate for better disclosure and transparency across the industry. We also scrutinize the data from third-party ESG data providers, working closely with them to improve their coverage of the fixed income universe, data accuracy and timeliness.



# Global Fixed Income, Currency and Commodities (GFICC) continued

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In the sovereign space, we recognize that engagement is critical, but it can be more nuanced compared to the corporate market given the inherent politics involved.

We seek to engage with the sovereign market in a variety of forms, including investing in sovereign debt to finance specific sustainable projects, meeting with government officials regularly to understand progress on climate goals and participating in industry groups to encourage better disclosure and improved practices from state-owned companies.

The results of our ESG engagement are reflected in the research reports produced by analysts, and they feed back into the overall view of an issuer, thereby influencing investment decisions when financially material.

# Global Liquidity

## Research/due diligence

As part of our security selection strategy for our strategies that are ESG integrated, we seek to assess the impact of ESG factors on many issuers in the universe in which we invest. We utilize both top-down and bottom-up approaches to thoroughly analyse such issuers, including ESG risks and opportunities that may affect issuers' current and future cash flows.

Proprietary, fundamental bottom-up credit analysis forms the foundation of our approach to ESG integration. We analyse companies across a range of inputs including company regulatory filings, annual reports, company websites, direct communication with issuers, media, and third-party and proprietary research.

Proprietary quantitative ESG rating systems have also been developed to capture the nuances across specific fixed income markets. These include a proprietary multi-question ESG checklist for the corporate bond market, at both the ticker and specific bond level, country ESG rankings for developed markets and systematic identification of ESG leaders and laggards in the securitised market. These ESG-related frameworks allow analysts to make informed decisions on the ESG profile of issuers within their respective sectors.

In addition, the JPMAM Quantitative ESG Score developed by the Sustainable Investing team provides further breadth of ESG data using proprietary methodology.

As a supplement to these proprietary tools, our common technology platform – Spectrum™ – displays third-party ESG data for each issuer, tracking individual environmental, social and governance scores and changes to those scores, over time.

Our analysts form opinions based on their independent research and judgment and produce reports containing specific sections for ESG comments that are leveraged across different asset classes when appropriate. The analysts apply a fundamental credit rating to each issuer, and this rating, which can be adjusted based on ESG concerns, ultimately determines an issuer's maximum lines using Global Liquidity's credit guidelines. These guidelines set maximum tenors (duration) and exposures at both the platform level and within each fund and account.

For a more detailed review of the research/due diligence process, please refer to the GFICC section of this report.

## Engagement

As bondholders, we do not typically carry voting rights. However, as providers of financing, we have the ability to advocate for and influence positive change by actively engaging on a wide range of ESG issues with a variety of market participants.

Frequent meetings with company management teams or governmental issuer representatives help illuminate ESG risks and opportunities identified as material and relevant in an effort to positively influence issuers to adopt best practices. This information informs the overall ESG analysis within the proprietary fundamental ESG checklist analysis. The results of our ESG engagement are reflected in the research reports produced by analysts, and feed back into the overall view of an issuer. Portfolio managers work with research analysts to understand how engagement opportunities are impacting the overall view of a credit.

Below are a few keyways we engage with management teams and other stakeholders:

- Have board representation on industry bodies, where we encourage closer cooperation among issuers on key ESG initiatives.
- Work with rating agencies to promote better corporate behavior in certain sectors and encouraging cooperation between legislators, issuers and other industry bodies.
- As previously stated, ESG integration is dependent on the availability of sufficient ESG information on investee issuers. Recognizing the existing limitations around ESG data quality and availability, we collaborate with data providers to encourage them to improve the overall coverage of the fixed income universe with timely and accurate data.

The results of our ESG engagement are reflected in the issuer reports produced by research analysts, which in turn feed back into the investment process alongside other factors.

# Asset Management Solutions

## Multi-Asset Solutions

### Research/due diligence:

The Multi-Asset Solutions team designs and manages multi-asset portfolios, integrating the breadth and depth of investment talent within J.P. Morgan Asset Management, drawing on its proprietary quantitative and qualitative research capabilities, strategy and security selection, asset allocation and risk-focused portfolio management expertise.

For our ESG research in Multi-Asset Solutions, we leverage the following teams: Multi-Asset Manager Research, Sustainable Investing and corresponding asset class research analysts.

Within the manager/strategy evaluation process, we focus on understanding how financially material ESG considerations influence the capabilities of the underlying manager/ strategy and the investment process. The emphasis is on understanding how ESG metrics, where financially material, are considered and how the manager/strategy defines, evaluates and rationalizes inclusion of securities that may score poorly and/or contain perceived headline risk. Multi-Asset Solutions portfolio managers consider this information, among other variables, when reviewing managers/ strategies within the overall portfolio construction process. At Investment Director quarterly meetings, ESG characteristics can be challenged and discussed.

## Engagement

Engagement functions are a collaboration between J.P. Morgan Asset Management portfolio managers, research analysts and the Investment Stewardship team. Each brings a different perspective to our interactions with companies across our six Investment Stewardship Priorities and our research framework.

From a Multi-Asset Solutions perspective, we leverage the expert insights of the Investment Stewardship team and underlying investment teams on issues related to proxy voting and engagement activities.

## Quantitative Solutions

### Research/due diligence

- In order to integrate financially material ESG considerations in factor-based strategies (long-only and long/short) and thematic, we rely upon a third-party vendor to evaluate companies based on a quantitative ESG metric.
- Third-party vendor coverage for our full long/short universe is approximately 95%, with most in Europe and least in Asia, emerging markets and small cap, and is increasing over time. The result of the ESG evaluation provided by the third-party vendor is reflected in scores that are normalized by sector, but not by region. The scores range from 1-10 (10 being the best score), with most benchmarks' ESG score averaging around 5.

ESG integration is dependent on the availability of sufficient ESG information on relevant companies or issuers and the investment universe. We recognize the limitations around ESG data quality and availability.

### Engagement and voting

- JPMAM votes according to J.P. Morgan Asset Management Global Proxy Voting Guidelines. The Stewardship team may engage with companies held in Quantitative Solutions' portfolios as part of its stewardship program.
- When there are significant proxy voting issues on companies without fundamental analyst coverage, the Stewardship team will engage with the Quantitative Solutions portfolio managers. The two groups will evaluate the resolution, discuss the issues and come to a decision.

# Alternatives Macro Strategies

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## Research/due diligence

Our research process consists of an assessment of materiality and ESG scoring: Assessment of materiality. Our proprietary analysis aims to capture key ESG topics pre-trade and on an ongoing basis for all long exposures in individual companies, bond and FX investments. We have determined distinct ESG materiality frameworks for corporates and sovereigns that facilitate a repeatable process for assessing ESG across industries and countries and identifying the most relevant ESG topics.

Our framework for corporates leverages multiple considerations. This includes inputs such as ISSB, and relevant data for the sub-industry. We also look at third-party research as appropriate. We may add as needed an additional ESG area for review that we believe could be material for a particular activity or company. For sovereigns, we assess debt and FX positions against the UN PRI ESG topics from its guide to sovereign debt investing and have added 'central bank credibility' as an additional standalone Governance topic.

The portfolio managers have the discretion to add further ESG topics they believe could be financially material to specific positions. Our materiality assessment draws on the managers' understanding of inherent ESG risks and opportunities across countries, sectors, industries and activities, and their knowledge of their sector of coverage and specific companies. We integrate proprietary, broker and ESG-specific third-party research and company disclosures into our assessment as well as insights from scoring and active ownership. The final analysis is documented as part of a security's investment thesis, which supports the ability to monitor exposures over time.

ESG scoring: Third-party scores provide a complement to our own assessment of materiality and are an objective quantitative framework for the consideration of ESG credentials. We leverage ESG scoring and the associated analysis from MSCI, using the All Country World Index (ACWI) scores for equity and credit, and the country scores for sovereign debt, which feed into Spectrum™. Within Spectrum™, we can view our portfolios' aggregate scores, the component parts and the scores for the broader universe. We also leverage the norm-based scoring assessment from ISS-ESG, referring to its red/amber/ green flags. In addition, the JPMAM Quantitative ESG Score provides further insights of ESG data using JPMAM's proprietary methodology.

## Engagement

To enhance our ESG analysis and ensure active ownership on behalf of our clients, the Macro Strategies team leverages the expert insights of the Investment Stewardship team, specifically relating to proxy voting and engagement activities. Further, we engage directly with companies on certain issues where we believe additional discussion may be materially beneficial.

# Alternatives

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## Research/due diligence

J.P. Morgan Alternative Asset Management (JPMAAM) Hedge Fund and Alternative Credit Solutions believes that sustainability is a key factor, alongside others, in managing risks and identifying opportunities, and we have developed a holistic investment approach that reflects this belief. Our ESG framework primarily focuses on ESG integration in our manager due diligence process. Our proprietary framework for evaluating managers includes an extensive list of questions on ESG metrics across 25 categories in relation to their operational and investment processes. We apply the framework to every manager while recognizing that the financial materiality of certain ESG risks and opportunities may vary by manager type, size and strategy. This comprehensive analysis informs our view of ESG-related risks and is an important part of our investment decision-making process.

## Engagement

After evaluating managers on financially material ESG metrics throughout our due diligence process, we actively engage them on any identified financially material environmental, social or governance risks. We work closely with our managers to help them improve on financially material ESG metrics where we believe they are lacking, providing guidance and support to help them to improve practices. We believe this improves a company's ability to operate successfully, both now and in the future, thereby enhancing the potential of our investment. The platform has helped many hedge fund and private credit managers to incorporate financially material ESG metrics into their businesses and investment processes. Notably, over 90% of managers on the J.P. Morgan Alternative Asset Management platform already have or are actively drafting an ESG policy focused on investment and/or business practices, up from less than 20% at the start of 2018.

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

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