STRONGER PORTFOLIOS BUILT FOR A CHANGING WORLD

Sustainable Investing

Incorporating Environmental, Social & Governance (ESG)
J.P. Morgan Asset Management

LET'S SOLVE IT.®

J.P.Morgan
Asset Management

Our Commitment to Sustainable Investing

Environmental, Social and Governance (ESG) factors are non-financial considerations that are important for stakeholders to keep in mind when assessing a company's performance.

ENVIRONMENTAL:

Issues relating to the quality and functioning of the natural environment and natural systems, e.g., carbon emissions, environmental regulations, water stress and waste

SOCIAL:

Issues relating to the rights, well-being and interests of people and communities, e.g., labor management, health & safety and product safety

GOVERNANCE:

Issues relating to the management and oversight of companies and other investee entities, e.g., board, ownership and pay

Source: Definitions, PRI; Examples, MSCI.

J.P. Morgan Asset Management (JPMAM) understands that putting our clients' interests first means recognizing and managing investment risks and opportunities associated with Environmental, Social, and Governance factors. We have a deep understanding of investing across multiple dimensions with a goal of producing risk-adjusted returns that align with our clients' objectives. Through our engagement and partnership with clients and various organizations, we continually increase our knowledge and views on key ESG issues and best practices. We have been a signatory to the United Nations-supported Principles for Responsible Investment initiative since 2007 and are committed to incorporating ESG factors into our investment practices, where material and relevant.

To drive our commitment, the Sustainable Investment Leadership Team (SILT) is implementing a coordinated strategy for sustainable investing across Asset Management globally. This cross-functional team includes senior leaders from all regions with a deep and diverse set of expertise across asset classes and client channels.

SILT's mandate includes:

- Promoting internal best practices, including identification and assessment of ESG issues
- Driving thought leadership and innovation
- Deepening and broadening current investment capabilities, including portfolio analytics, measurement and reporting
- Sharing our views and helping clients better understand our capabilities

We strive to be transparent around our commitment to sustainable investing. To learn more about our efforts please visit **jpmorgan.com/esg.**

Our Capabilities are aligned with Client Objectives

We recognize that sustainable investing represents a broad set of opportunities and that clients may choose to implement their views based on explicit portfolio objectives. With that in mind, we offer an array of investment solutions to meet our clients' financial goals and non-financial objectives. Many of our core investment capabilities incorporate ESG factors into their analysis with the primary goal of delivering exceptional investment returns. Our broad product capabilities and global research allow us to partner with clients to meet their needs across a spectrum of solutions, including strategies that incorporate a variety of sustainable capabilities.

We developed a framework to define our capabilities across four ESG categories as depicted below: ESG Integration, Best in Class, Values/Norms-Based Screen and Theme-Based/Impact Investing.

OUR FLEXIBLE APPROACH SOLVES FOR CLIENT-SPECIFIC GOALS ACROSS A RANGE OF SUSTAINABLE INVESTMENT SOLUTIONS

ESG Integration

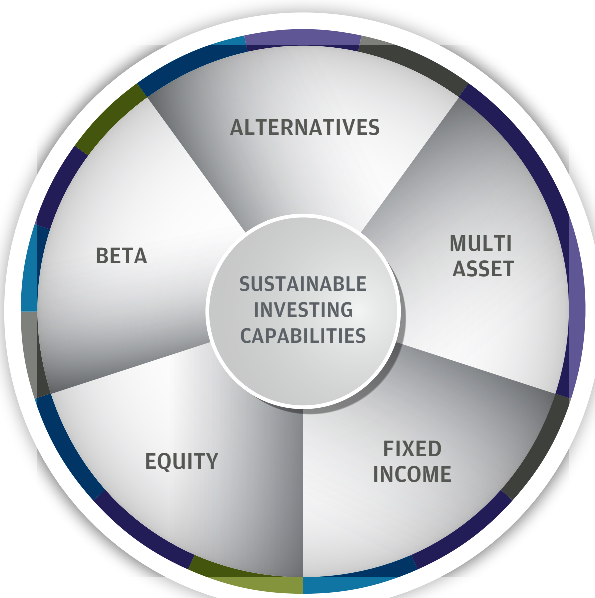
Systematic and explicit consideration of ESG factors in the investment decision-making process, such as:

- Equities: U.S., Global, EM
- Global Real Estate
- Infrastructure

Best in Class

Investment in companies based on positive ESG performance relative to industry peers, such as:

- Equities: U.S., European



Values/ Norms-Based Screen

Avoiding certain companies or industries that do not align with investor values or meet other norms or standards, such as:

- Faith-based investing
- Tobacco/firearms screens

Theme-Based/ Impact Investing

Investments based on specific environmental or social themes or assets related to sustainability, such as:

- Municipals
- Aging population
- Carbon reduction

Our Approach to Building Sustainable Investments

We take an integrated, research-driven approach to sustainable investing, as illustrated in the exhibit above. The precise implementation method is tailored to each investment capability. We believe that ESG considerations, particularly those related to governance, can play a critical role in a long-term investment strategy.

We rely on both the expertise of our research analysts and our corporate governance specialists who work together in the evaluation of ESG factors. Proprietary research and risk management tools are supplemented by third party data to deepen our ESG insight.

- Global research analysts have deep industry expertise and knowledge of the ESG factors impacting the cash flows of companies they cover.
- Corporate governance specialists partner with research analysts and drive engagement with an emphasis on corporate governance and, where material and relevant, environmental and social factors.

Portfolio Managers draw on these professionals' expertise, as well as third-party data, to address ESG issues in a manner consistent with their investment strategy. Investment Directors work closely with Chief Investment Officers (CIOs), Portfolio Managers and Risk Management to monitor portfolios and discuss various risk outliers, including those related to ESG.

SILT provides a foundation for this framework, by sharing best practices and driving our ESG commitment, which is an integrated part of our governance. To uphold the integrity of our sustainable investing capabilities, we follow a three step approach: Commit, Implement and Demonstrate. SILT liaises with Strategic Product Management and ultimately the Asset Management Operating Committee, which is responsible for JPMAM's overarching strategy and priorities.

Our Approach to Corporate Engagement and Proxy Voting

As a fiduciary, we proactively engage to create value for our clients. We believe effective engagement requires a thorough grasp of industries, market trends, individual companies and operating environments. To accomplish this important undertaking, we rely on both the expertise of our research analysts and our corporate governance specialists. Corporate governance specialists have a deep understanding of the operating environment in their regions, ranging from regulatory environment to best practices in engagement. This integrated approach to engagement has been in place for years.

We manage the voting rights of the shares entrusted to us as we would manage any other asset. We vote shares held in the best interest of our clients, based on our reasonable judgement of what will best serve the financial interests of our clients.

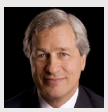
We have set out four main principles providing the framework for our corporate governance and proxy voting activity in our equity investment processes, which we believe have global applicability. These general principles are based on the OECD Principles of Corporate Governance, which we consider to be a common basis for the development of good governance practices worldwide. Regardless of their location and jurisdiction, companies should address the following:

- Responsibilities of the Board
- Equitable treatment of shareholders
- Rights of shareholders
- Role of stakeholders

Responsibility for the formulation of voting policy in each region rests with the regional proxy committees (or their local equivalent), whose role is to review corporate governance policy and practice with respect to investee companies in each region and to provide a focal point for corporate governance issues. Each committee is typically composed of senior analysts, portfolio managers, corporate governance specialists and members of legal and compliance. Each regional proxy committee reports in turn to a global proxy committee chaired by the Global Head of Equity, who has overall responsibility for our approach to governance issues worldwide. To learn more, read our Global Proxy Voting Guidelines, available at **www.jpmorgan.com/esg.**

JPMorgan Chase & Co. Corporate Responsibility

"Effectively addressing environmental, social and governance issues is a key part of building a great company. Doing so means having strong governance, effective risk management systems and robust controls. It includes delivering exceptional service for our customers in a fair and transparent manner, investing in our employees' development and fostering an inclusive work environment. It also involves considering environmental and social issues in our business and operations. When we do these things well, it makes our company stronger and more resilient."



JAMIE DIMON
Chairman and Chief Executive Officer

JPMorgan Chase & Co. is committed to providing information to our stakeholders about how we manage and conduct our business, including how we leverage our resources and capabilities to help solve pressing social, economic and environmental challenges. In 2015, we launched a dedicated ESG information portal on our website to facilitate access to the range of information and resources that we provide. On this page, found at www.jpmorganchase.com/esg, you can access our annual ESG Report, which highlights information about our firm's approach to the ESG issues that are among the most important to our business and stakeholders.

JPMORGAN CHASE BUSINESS PRINCIPLES

Exceptional Client Service	• Focus on the customer • Be field and client-driven and operate at the local level • Build world-class franchises, investing for the long term to serve our clients
Operational Excellence	• Set the highest standards of performance • Demand financial rigor and risk discipline: We will always maintain a fortress balance sheet • Strive for the best internal governance and controls • Act and think like owners and partners • Strive to build and maintain the best, most efficient systems and operations • Be disciplined in everything we do • Execute with both skill and urgency
A Commitment to Integrity, Fairness and Responsibility	• Do not compromise our integrity • Face facts • Have fortitude • Foster an environment of respect, inclusiveness, humanity and humility • Help strengthen the communities in which we live and work
A Great Team and Winning Culture	• Hire, train and retain great, diverse employees • Build teamwork, loyalty and morale • Maintain an open, entrepreneurial meritocracy for all • Communicate honestly, clearly and consistently • Strive to be good leaders

Appendix

Capabilities by Asset Class

Equities

Overview

In our view, ESG is three separate issues, not one. Certainly there cannot be a single response that fits all market views on these topics. Governance has long been part of our process, and our view on board balance, disclosure & transparency, rights of shareholders, and alignment of compensation is broadly homogeneous between markets and our client constituency. Environmental concerns are increasingly part of the investment landscape as legislation changes the rules, and social issues, too, can have a real impact on a business. However, it is important to recognize that views on what constitutes both environmental and social best practice can vary widely (for example, differing attitudes on alcohol, abortifacients, fossil fuels, nuclear power and weapons manufacture). For this reason, we believe the best approach is to focus on the potential economic impact of these issues and apply an appropriate discount when making investment decisions, while always being cognizant of our clients' requirements and views.

Governance

Corporate governance issues, in our view, have the most direct bearing on the risk/reward profiles of our portfolios, so this is the area that is most integrated into our investment process. Although in developed markets we would only exclude a company from our portfolios on purely governance criteria in extreme circumstances, we recognize that it is a risk factor we must understand and take into account as part of the investment decision. We will also seek to change substandard governance, when we can, through our proxy voting and engagement activity. We manage the voting rights of the shares entrusted to us as we would manage any other asset. It is our policy to vote shares held in our portfolios in a prudent and diligent manner, based exclusively on our reasonable judgment of what will best serve the longer-term financial interests of our clients. We also regard regular, systematic and direct contact with senior company management, both executive and non-executive, as crucially important. Where appropriate, governance specialists will attend scheduled one-to-one meetings alongside analysts and portfolio managers, as well as convene dedicated meetings, as required, in order to debate areas of concern.

Environmental

Environmental concerns are an ever-increasing part of the investment landscape, partly because of legislation in many countries, but also due to the impact they can have on investment returns and cash flows. As investors, we often make an assessment of environmental issues and include them in our decision-making process. This is also an area where a growing number of clients have specific questions and expectations. We do not exclude specific assets or types of assets from portfolios explicitly on environmental criteria (unless specifically requested by clients or required by local legislation), but we do need to be aware of the environmental risks associated with a given company and/or industry, and consider the potential economic implications.

Social

Social issues are the most difficult to assess, as they mean very different things to different people, and this is reflected in our global client constituency. For segregated clients, we are willing to customize individual mandates to exclude companies engaged in businesses that the sponsoring client finds unacceptable. We have also, in some cases, expanded this approach to include pooled funds, for example with landmines in Europe. Beyond that, for unconstrained portfolios, we consider the materiality of social issues. In these instances, we must focus on the economic impact of this involvement.

Global Fixed Income, Currency and Commodities

Overview

The Global Fixed Income, Currency and Commodities (GFICC) team is committed to delivering strong risk-adjusted returns to its clients worldwide. We believe that one of the drivers of that performance over the long term is an assessment of ESG issues and practices of the companies in which we invest our clients' assets. We expect those companies to conduct their business in a sustainable manner and to demonstrate the highest standards in the management of their business.

Philosophy

As a global provider of fixed income advisory and investment management services in a range of sectors and geographies around the world, we recognize that our investment decisions can have a significant impact for our clients. Taking into consideration, where relevant and material, ESG issues alongside other market risk factors is fundamental to sound risk management and a core part of our fiduciary responsibility.

Approach and Integration

We have adopted a positive engagement approach to social, environmental and sustainability issues. Specific assets or types of assets are not automatically excluded from portfolios explicitly on social, environmental or ethical criteria unless specifically requested by clients or required by legislation. Our extensive fundamental sector and credit analysis is characterized by a research-driven approach within a disciplined global framework. This rigorous and systematic process considers ESG factors alongside other market risk factors to help understand the broader risk and reward profile. We have retained the services of a specialist ESG research service provider to supplement our internal fundamental, quantitative and valuations-based analysis.

Our team engages with the specialist ESG research service provider to leverage its expertise and ensure an understanding of its methodology. ESG performance ratings of the companies and sovereigns we invest in are integrated into our technology platform and accessible to our fixed income investment professionals. Our process builds upon third party ESG research through an internal research database which allows our analysts to offer different points of view on ESG factors for an issuer. The rankings, underlying data and internal commentary are available to our investment professionals to enable informed consideration of relevant issues, risks and opportunities associated with a particular issuer. It also enables us to identify topics and areas for issuer engagement.

Considering ESG-related issues is an important element of how we assess and manage risk. To that end, we have formed an ESG Leadership Team and Working Group in GFICC to further our ESG effort and commitment. This group provides trainings for our fixed income investment professionals, encourages the application of the Principles for Responsible Investment and creates awareness of the importance of ESG considerations where material. We partner with colleagues across the firm including representation on the broader Sustainable Investment Leadership Team for J.P. Morgan Asset Management.

A multidimensional approach is offered by GFICC for our sustainability-focused investors. GFICC is able to manage to ESG benchmarks and allows customization to incorporate screens such as issuer exclusion on social- and value-based criteria and customizations such as thematic investments.

GFICC supports the Green Bond market. Where appropriate and permitted by our clients, we endeavor to allocate to green bonds as they offer the opportunity to provide financing for environmentally beneficial projects and activities. Lastly, GFICC has the ability to provide clients with ESG-related reporting upon request.

Alternatives: Private Equity

Overview

The objective of the Private Equity Group (PEG) of J.P. Morgan Asset Management is to identify and select attractive investments from across a broad spectrum of private equity investment opportunities. Sustainable investing is an important part of PEG's investment diligence process. PEG assesses the environmental, social and governance behaviors and practices of the companies and underlying third-party private equity managers with which we invest.

Philosophy

PEG's standard investment process includes due diligence on sustainability, a written investment memorandum and ongoing discussion with the portfolio managers of PEG with respect to sustainability issues. This process includes clarification and assessment of all material risk factors of sustainability including environmental, social and governance factors. PEG encourages the underlying third-party managers with which it invests to carefully consider these factors in their own investment due diligence as well. Sustainability considerations are an important component of both the initial due diligence and screening process and the ongoing monitoring of investments.

Approach

The investment strategy at the foundation of PEG has been developed and refined over 35 years and through a wide range of market and investment environments. Consistent with PEG's ultimate objective of providing attractive, risk-adjusted returns, specific companies and investment managers or types of companies or managers, are not excluded from client portfolios solely on the basis of ESG criteria. However, PEG views sustainability issues as important factors that are likely to impact performance and therefore must be carefully considered as part of the investment review process. PEG believes that sustainability considerations must be reviewed holistically to account both for material risks and also potential opportunities which may make companies or underlying managers more or less attractive for investment.

PEG encourages the portfolio companies and managers with which it invests to advance the principles of sustainable investing in a practical manner consistent with return objectives and fiduciary duties, which include:

- Considering environmental, public health, safety and social issues and their impact on investment returns
- Positively impacting communities, including, for example, promotion of health, wellness and advancement
- Using governance structures that provide effective management, including in the areas of audit, risk management and potential conflicts of interest
- Implementing procedures and processes to ensure compliance with laws and to prohibit bribery, inducements and other improper payments or non-competitive behavior
- Promoting and protecting human and social rights, including confirming that underlying portfolio companies comply with labor laws and do not maintain discriminatory policies or engage in illegal work practices, PEG seeks to integrate ESG considerations into the investment process in a practical manner to ensure that the investment process is clear and consistent with the portfolio's investment objectives. This includes developing guidelines and an approach, which are adaptable to market conditions, portfolio construction and investment opportunities.

Alternatives: Global Hedge Fund Solutions

Overview

J.P. Morgan Asset Management's Global Hedge Fund Solutions group is committed to delivering strong risk adjusted returns to its clients around the globe. Our objective is to select attractive managers in order to construct portfolios to deliver the most attractive performance while minimizing risk. Rigorous risk management and skeptical due diligence are essential to our process, and we recognize that an assessment of ESG factors can be additive to our evaluation. Specifically, our assessment of each manager includes a thorough review of corporate governance.

Philosophy

We strive to ensure that our managers are consistently using best practices and will encourage change when they are not. We will:

- Always act in the highest fiduciary interest of our clients and only invest in managers that have been thoroughly vetted
- Act as a responsible corporate citizen
- Include in each Investment Committee memorandum clarification and assessment of material risk factors around governance

Approach

The Global Hedge Fund Solutions team invests in hedge funds and not in direct securities. We actively engage managers on a range of issues that may include social, environmental and sustainability concerns. However, specific funds, assets or types of assets are not automatically excluded explicitly on social, environmental or ethical criteria unless specifically requested by clients or required by local legislation. For some of our clients, we do monitor the percentage of the underlying managers' investments that fall outside of their ESG criteria.

As part of our normal operational due diligence process, we review the governance structure prior to making an investment in a manager and, when appropriate and material, we actively engage with our managers to improve on their governance. We view good governance as a pre-requisite for responsible investing, but also as a tool to help mitigate potential risks and conflicts. In this way, we believe that governance issues can impact performance and therefore should be closely reviewed and considered in investment decisions.

Governance

The operational due diligence team is tasked, among other responsibilities, with an assessment of the authority and independence of the managers' boards of directors. The team also focuses on controls and procedures to ensure that the manager has the proper balance of control and oversight for key functions. This includes multiple signatories on cash movements and proper operational procedures with adequate segregation of duties.

Alternatives: Global Real Estate

Overview: Acting solely in the fiduciary interest of our clients

Global Real Estate strives to deliver strong risk-adjusted investment performance to our clients worldwide. We believe that one of the drivers of that performance over the long term is the management of ESG behaviors and practices of the companies and assets in which we invest on behalf of our clients.

Philosophy: Incorporating ESG leads to better investment decisions

We believe continuous improvement of our assets/companies with respect to sustainability will ultimately improve both the environment in which those investments exist as well as asset competitiveness and value. Global Real Estate will:

- Always act in the fiduciary interest of our clients by buying, constructing and operating high-quality assets
- Maintain and improve operating performance to maximize long-term value

Approach: Integrating ESG into investment Decisions

Global Real Estate's Sustainability Philosophy allows for flexibility among a wide range of companies, assets, locations, strategies and ownership structures—from operating companies to individual assets, from office buildings and shopping centers to apartment buildings. Global Real Estate's approach to ESG is one of integration—the systematic and explicit inclusion of sustainability/ESG factors into traditional analysis and decision making by investment managers. Sustainability issues are identified and quantified as part of our investment due diligence process, not only as a pre-requisite for responsible investing, but also as a tool to help mitigate potential risks.

Act as a Responsible Corporate Citizen

ENVIRONMENTAL

Investments are underwritten to meet or exceed environmental standards, taking into account the long-term objectives of our investments, mitigating risks associated with expanding regulations and increasing the marketability of real asset investments at time of disposition.

SOCIAL

The construction of well-designed and well-managed real estate—for example, buildings, roads and power plants—has a positive impact on local communities, creating jobs and boosting economic activity. An understanding of an investment's potential impact on a variety of stakeholders is essential to an appropriate underwriting.

GOVERNANCE

Companies in which Global Real Estate invests on behalf of its clients and/or partners should be controlled by effective management, with an appropriate balance of control and oversight for key functions, including reviewing and guiding strategy, major plans of action and risk policy. Remuneration for services should be aligned with the longer-term interests of investors. Companies should ensure that timely and accurate disclosure is made on all material matters, including the financial situation, performance, ownership and governance of the company. Companies should eliminate corruption in all its forms, including the payment or acceptance of bribes and inducements, and cartel behavior.

Alternatives: Infrastructure

Overview

The infrastructure team recognizes that management of material ESG issues can have a significant impact on the long-term operational performance of the companies in which it invests on behalf of its clients. As an asset class, infrastructure investing can directly benefit by the effective management of ESG factors.

In providing long-term capital, infrastructure investors are looking for companies to be managed for sustainable growth and resilience. We believe a focus on forward-looking ESG factors as a complement to traditional analysis, both in the acquisitions process and ongoing asset management, results in better long-term outcomes for our investors, portfolio companies, communities and other stakeholders.

Philosophy

As a signatory to the United Nations Principles for Responsible Investment, where consistent with our fiduciary responsibility, we believe that ESG factors should be incorporated in the investment and asset management processes. Further, we believe that transparency around how a company manages ESG risks and opportunities is part of its value proposition: management of ESG factors impacts business results in numerous respects including access to capital, cost savings, productivity, revenue growth, market access, reputation, insurance cost and availability, talent retention and risk management. Well governed companies with an environmentally sustainable and socially responsible way of operating significantly de-risk their business model, and therefore, deliver better performance and achieve greater cost efficiencies and profitability for their investors. We believe it is appropriate to hold ourselves accountable to our stakeholders for our management of ESG factors and strive to do so through reporting, engagement with stakeholders and benchmarking.

Approach

In keeping with the principles set forth in the UNPRI, the largest direct equity infrastructure strategy at J.P. Morgan Asset Management has adopted a Mission Statement, Governance Principles, Governance Implementation Framework and ESG Policy, which together provide a roadmap to the management of material ESG factors at the Strategy and provide ESG guidance to the boards and management of the Strategy's portfolio companies. The Strategy's integrated approach to ESG includes consideration of ESG matters in acquisition due diligence culminating in a distinct ESG section in each investment committee memorandum, a requirement of each portfolio company's board of directors to adopt an annual governance calendar, which explicitly includes ESG matters, a requirement of each portfolio company to track and report on a variety of ESG matters, and the vast majority of its portfolio companies participating in ESG benchmarking assessments.

Beta Strategies

Overview

The Beta Strategies Group has a systematic approach to investing across all asset classes. We have 30 years of experience in index replication in U.S. Equities, nine years of experience in Alternative Beta and four years in Strategic Beta across various vehicles, including ETFs, mutual funds and separate accounts. We have extensive experience in using our process to customize requests on behalf of clients. Thanks to the growth of research into Socially Responsible Investments, the incorporation of ESG factors is now accessible to investors in systematic strategies as well. While the Beta Strategies Group has not yet formally gone through the ESG integration process, they do have the capability to consider ESG factors in order to meet specific client objectives.

Philosophy

We believe in the importance of making available investment strategies that deliver on the needs and desires of clients to be invested in a sustainable way. By excluding certain stocks that do not fulfill or which do not score highly on sustainability criteria, a traditional market-capitalization index may further increase concentration, especially among larger companies given the bias that ESG scoring has towards large caps. Our long-only framework seeks to re-distribute allocations at the region and sector level so as to ensure maximum diversification, which we believe provides better client outcomes.

Approach

Our approach towards implementation of ESG varies depending on the nature of client requests but, in general the over-arching principal is to focus on the various dimensions of diversification and to minimize idiosyncratic risk. More specifically, our unique two-step investment process seeks first to re-weight the index to ensure equal risk contribution by region and sector and, second, to maximize exposure to various risk premia, such as momentum, value, size and quality via a multi-factor stock screen. We are then able to customize our approach to ESG based on client preference. This ranges from excluding certain sectors/stocks to incorporating external ESG rankings into our multi-factor score so that we can build a portfolio from the bottom-up to a “best in class approach”, i.e. investing in the best scoring companies in each sector.

Incorporation of a ESG ranking of securities fits seamlessly into our factor-based investment process. This allows our ESG strategies to pursue the capture of compensated factors while also avoiding companies and industries which rank poorly across ESG metrics and leaning into those that rank better. Our Beta Strategies are constructed with a focus on the various dimensions of diversification. This can be of great value in ESG investing, where exclusionary methods may force greater concentration of risk in sectors, regions and individual securities. Moreover, this diversification focus helps us to avoid idiosyncratic risk. We believe that ESG concerns can be successfully integrated into a process designed to deliver better risk-adjusted returns for our clients.

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Contact your J.P. Morgan Representative
or visit www.jpmorgan.com/esg

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