

GSAM's Statement on ESG & Impact Investing

Executive Summary

Goldman Sachs Asset Management (GSAM), a part of the Goldman Sachs Group, Inc., is committed to helping our clients deploy their capital in a manner that integrates environmental, social, and governance (ESG) considerations and seeks to have positive impact on environmental and social issues, while preserving and growing our clients' financial assets. This work is rooted in our belief that: 1) in certain instances, ESG factors can be material drivers in delivering long-term, risk-adjusted returns for our clients, and 2) some of our clients have more targeted values, priorities or investment objectives concerning ESG and impact issues. This document outlines GSAM's commitment to ESG and impact investing, our investment rationale for ESG integration across asset classes and investment strategies, and our capabilities for those clients who have a more targeted focus on ESG and impact investing.

Goldman Sachs has a long standing commitment to integrating ESG and impact considerations in our work with clients across our business lines. For example, in 2015, Goldman Sachs [expanded the firm's clean energy target](#) to \$150 billion in financings and investments by 2025, increasing our previous goal of \$40 billion originally set in 2012.¹ In addition, since 2001, Goldman Sachs' [Urban Investment Group](#) has deployed over \$7.6 billion² into underserved American communities and has innovated on many public-private partnership financing models in the impact investing field.

As we believe that the investment case for the materiality of ESG factors has become more robust for certain investment strategies, and as our clients have become increasingly focused on comprehensive ESG and impact investing solutions, GSAM has expanded these capabilities for our clients. In 2015, GSAM acquired the assets of Imprint Capital ("Imprint"), one of the largest dedicated ESG and impact investing investment advisors in the industry. Since its founding in 2007, Imprint had advised on 120 investments across asset classes on behalf of clients, including 11 of the 25 largest U.S. foundations and several other leading investors in the field. As of December 31, 2018, GSAM supervises over \$17.3 billion in assets in dedicated ESG and impact investing strategies on behalf of our clients, and an additional \$64.1 billion in assets that are invested with ESG considerations.³

GSAM's ESG and impact investing capabilities are differentiated by:

- The **depth** of expertise of our over 40 dedicated ESG and impact investing professionals who are embedded into and leveraged by the broader global division⁴
- The **breadth** of our internal and external implementation options across an asset allocation
- Our **core thesis** of treating ESG and impact factors as an investment discipline

As outlined in this statement, we partner with our clients to holistically integrate ESG and impact considerations in our core investment process and to offer dedicated strategies for interested clients.

¹ Targets are objectives and do not provide any assurance as to future results. Targets are subject to change and are current as of the date of this presentation. Targets are objectives and do not provide any assurance as to future results.

² As of December 31, 2018

³ Assets Under Supervision (AUS) includes assets under management and other client assets for which Goldman Sachs does not have full discretion.

⁴ Personnel as of December 31, 2018

Investment Team	Overview of Team	Holistic ESG Integration	Dedicated ESG and Impact Offerings ⁵
Fundamental Equity	The GSAM Fundamental Equity team (FE) manages a range of strategies across market capitalizations, investment styles, and emerging and developed markets. FE invests with a long-term view and seeks to allocate capital to companies with shareholder-oriented management teams and quality characteristics.	FE considers material ESG factors in fundamental investment decisions, leveraging external ESG data, in-house qualitative research, and active engagement with management teams to identify material risk and return drivers as core pillars of long-term value creation for their portfolios.	<ul style="list-style-type: none"> • US Equity ESG • Global Equity Partners ESG • International Equity ESG • Emerging Markets ESG
Fixed Income	The GSAM Fixed Income (FI) team manages a range of strategies within global fixed income markets, including specialized single-sector, diversified multi-sector portfolios, and global liquidity solutions.	FI integrates the analysis of ESG factors into their fundamental bottom-up investment process, where they seek to identify factors which they believe are key to determining whether a bond/sector would outperform or underperform the market. They take the same approach to analyzing ESG themes, seeking to value ESG topics as they would with any other credit factor; by assessing the potential impact on credit quality and spreads.	<ul style="list-style-type: none"> • ESG Enhanced SMAs: <ul style="list-style-type: none"> ○ Corporate Credit Debt (Investment Grade & High Yield) ○ Emerging Market Debt (Corporate & Sovereign) ○ Securitized Credit ○ Municipal Credit (Traditional & Taxable) ○ Short Duration Liquidity
Quantitative Investment Strategies	The GSAM Quantitative Investment Strategies (QIS) team uses advanced quantitative methods to systematically uncover sources of alpha, replicate hedge fund strategies and implement customized, rules-based equity solutions that incorporate client goals around factor tilts, taxes or ESG. Our proprietary risk models seek to ensure that risk is actively managed and allocated according to our investment criteria.	QIS uses its full set of analytical capabilities to research a variety of ESG data from a range of proprietary and external sources. ESG data are used to identify potential alpha signals which are integrated into alpha strategies if they add sufficient incremental financial value. ESG screens (exclusions) and tilts (over/underweight stocks) derived from these data are also used to develop or customize strategies to meet client ESG needs.	<ul style="list-style-type: none"> • S&P Environmental & Socially Responsible Strategies • Risk Aware, Low Emissions (RALE) Strategy • Tax aware and factor-based equity strategies with ESG • Custom ESG Equity Insights • ESG-focused product that provides GSAM clients with broad exposure to US large cap companies that rank favorably based on values identified by the American public
GSAM Private Real Estate	GSAM Private Real Estate (PRE) is responsible for managing all of GSAM's private real estate investments and focuses on three main private real estate strategies including: (1) Core; (2) Core-plus; and (3) Value-add. The group employs an active management approach, seeking to drive returns for investors through asset management initiatives including renovating and rebranding assets and implementing energy and operating efficiency programs to realize cost savings.	GSAM PRE aims to integrate ESG considerations to create value for our investors, tenants and the community. They also aim to monitor and manage environmental and social risks alongside the economic risks of our investments. They will seek to leverage our resources, relationships, and knowledge to integrate ESG in the most effective and efficient manner from sourcing to eventual disposition of our investments. The team continues to evolve their approach to ESG to achieve environmental and social impact where possible, with the primary focus of maximizing consistent and persistent long-term performance for their investors.	<ul style="list-style-type: none"> • ESG integrated commingled and customized portfolios of real estate assets

⁵ There is no guarantee that these objectives will be met. The portfolio risk management process includes an effort to monitor and manage risk, but does not imply low risk. This information is shown for illustrative purposes to demonstrate our ESG & Impact investing capabilities. Please note that not all investments are available for all investors.

GSAM Credit Alternatives	<p>The Credit Alternatives team utilizes a bottom-up, fundamentally based investment approach with a focus on capital preservation to provide clients with differentiated sources or return, or yield, over the long-term. The Renewable Power Group sits within the GSAM Credit Alternatives platform.</p>	<p>The GSAM Renewable Power Group within the GSAM Credit Alternatives team manages investment strategies that focus primarily on renewable energy projects. The team is comprised of seasoned professionals, including individuals with experience in the solar industry.</p>	<ul style="list-style-type: none"> • Renewable energy strategy
Alternative Investments & Manager Selection	<p>The GSAM Alternative Investments & Manager Selection (“AIMS”) Group provides investors with investment and advisory solutions, across leading external hedge fund managers, private equity funds, real estate managers, and traditional long-only managers.</p>	<p>AIMS integrates a full quantitative and qualitative ESG analysis of external managers and their underlying holdings into the team’s investment due diligence, operational due diligence, and monitoring of investments. Within the AIMS Group, the AIMS Imprint team is a discrete vertical dedicated to sourcing, vetting, and making investments in managers that focus explicitly on ESG and impact investing.</p>	<ul style="list-style-type: none"> • Customized public and private market ESG and impact portfolios across asset classes and impact themes • Commingled private market impact investing vehicles

ESG and Impact at Goldman Sachs

Goldman Sachs has a long standing focus on ESG and impact issues, from our commitments to increasing sustainability across our operations to financing activities devoted to sustainability to our pioneering work in impact investing. We annually report on our Firmwide progress through our [Environmental, Social and Governance Report](#) which highlights areas in which we have demonstrated our commitment to finding effective and innovative ways to tackle economic, social, and environmental challenges across our business.

Goldman’s commitment to ESG and impact investing spans several main areas of focus, including: our business, our operations, our capital, and our clients’ capital:

- **Our business** – Goldman Sachs was one of the first financial institutions to acknowledge the scale and urgency of the challenges posed by climate change. In 2015, we updated our [Environmental Policy Framework](#) (EPF) to build on our progress and establish a roadmap for continued environmental leadership across the breadth of our businesses. The updated EPF includes business commitments, including the expansion of our clean energy target to \$150 billion in financings and investments by 2025 to facilitate the transition to a low-carbon economy, as well as operational commitments, including achieving carbon neutrality across our operations as of 2015 and a target of 100 percent renewable power to meet our global electricity needs by 2020.⁶ In 2018, we reached more than halfway toward our \$150 billion target of financing and investing in the clean technology and renewable energy sector. We continue to leverage the breadth of our business in driving the transition to a low carbon economy.
- **Our people** – We furthermore believe that our people are a vital part of our business, and we go to great lengths to support, promote and develop them. We are committed to creating and sustaining a diverse work environment for our people and believe we can only serve our clients with excellence by having a workforce that pulls from a wide range of experience and backgrounds. The firm’s commitment to diversity includes raising awareness, developing targeted initiatives to drive the advancement of diverse professionals, and embedding manager and senior leadership accountability for developing a diverse talent pipeline. For example, in 2018, 1,600 partners, managing directors and vice presidents participated in a training led by Harvard professor Mahzarin Banaji that explored unconscious thinking and its impact on decision-making for our people and businesses. Since launching the program, almost 11,500 professionals currently employed with Goldman Sachs have participated in the training. In 2018, we undertook new initiatives aimed at increasing the representation of diverse communities at all levels across the firm, including a commitment to having women represent 50 percent of our global talent over time and increasing the representation of our analyst and entry-level associate new joiners.
- **Our operations** – Through our Corporate Services and Real Estate (CSRE) team, we oversee our citizenship commitments; which include helping to manage our direct impact on the environment, supplier diversity and community relations across the firm’s facilities and operations worldwide. We focus on (1) managing regulatory and reputational risk; (2) driving innovation and thought leadership; and (3) engaging our people, vendors and communities. Our 2020 public environmental commitments span across a

⁶ Targets are subject to change and are current as of the date of this presentation. Targets are objectives and do not provide any assurance as to future results.

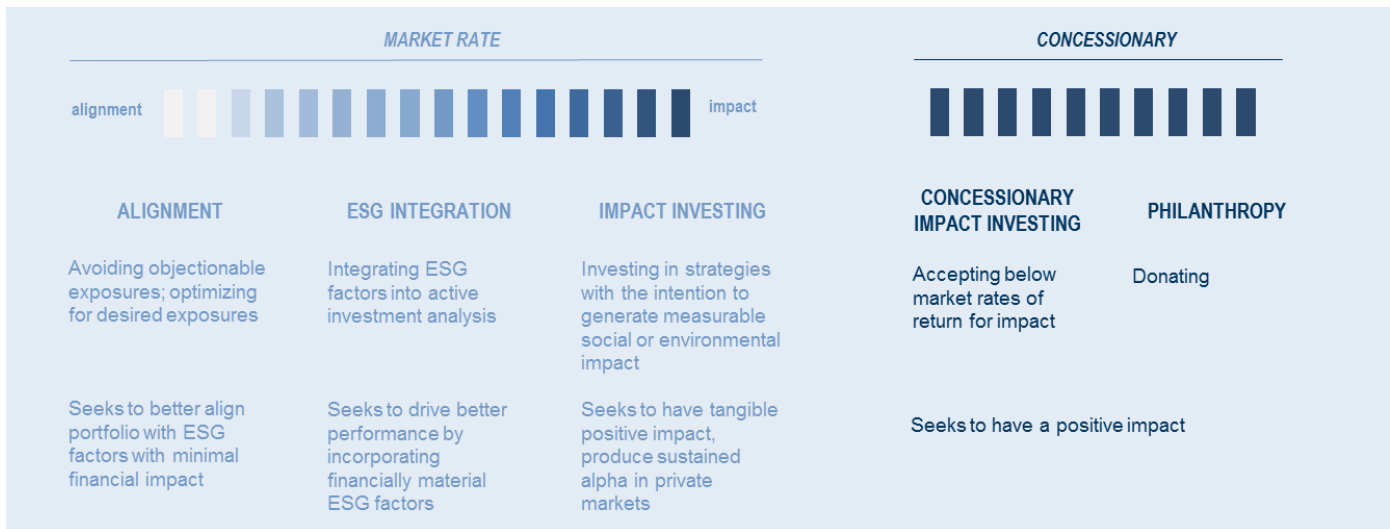
The portfolio risk management process includes an effort to monitor and manage risk, but does not imply low risk.

number of realms including green buildings, sourcing, waste, water and carbon/energy - fields in which we have been internationally recognized as leaders in the industry. Our social sustainability efforts (which focus on diversity and inclusion, health and safety, human rights and ethics, and local community) allow us to promote the presence of diverse businesses in our supply chain, establish global health and safety standards for our capital projects, as well as create and maintain signature local community engagement programs in major real estate locations in which we live and work. Lastly, we ensure proper governance by managing regulatory and reputational risk through transparency in public reporting and focusing on our sustainable procurement framework and vendor code of conduct.

- **Our capital** – Goldman Sachs has a long history of implementing innovative impact investments through our [Urban Investment Group \(UIG\)](#). Since its inception in 2011, UIG has committed over \$7.6 billion, facilitating the creation and preservation of over 28,000 housing units—the majority of which are affordable to low, moderate and middle-income families—as well as over 2.2 million square feet of community facility space and over 9.6 million square feet of commercial, retail and industrial space. To date, UIG has committed over \$5.7 billion in areas that would have been eligible for Opportunity Zone selection at the time of commitment.⁷ Since the Investing in Opportunity Act was passed, UIG has closed four Opportunity Fund investments in Opportunity Zones. Goldman Sachs has also committed in excess of \$1.6 billion to philanthropic initiatives since 2008, including through our 10,000 Women and 10,000 Small Businesses initiatives. In 2014, Goldman Sachs and The World Bank Group’s International Finance Corporation (IFC) created the first-ever loan facility for women-owned small-and-medium enterprises to enable 100,000 women around the world to access capital.
- **Our clients’ capital** – With growing interest and activity in the field, our clients are increasingly seeking ways to use ESG integration to drive value in their investment portfolios and achieve positive impacts alongside financial returns. At GSAM, we seek to provide comprehensive solutions for our clients, combining a focus on ESG and impact investing with the rigor and risk-return standards of investment management. This statement outlines GSAM’s commitment to ESG and impact investing and our capabilities for our clients in this regard.

Spectrum of ESG and Impact Investing⁸

At GSAM, we view ESG and impact investing along a spectrum of objectives and corresponding market opportunities, which are helpful to articulate before describing how these strategies are implemented across teams:



At GSAM, we focus on alignment, ESG integration, and impact investing. For some clients, concessionary impact investments – investments which may have a below-market rate return and/or philanthropy are an important part of their full spectrum of capital deployment. While we do not focus on these activities, we can help clients think through how they may fit into a comprehensive program.

⁷ \$3.0 billion are in the 25% of eligible census tracts that were selected by Governors and approved as Opportunity Zones by Treasury.

⁸ Source: GSAM. For illustrative purposes only.

ESG and Impact Investing at GSAM

GSAM has made a commitment to building a comprehensive ESG and impact investing platform both because we believe that in certain instances these factors are material to investment performance and because ESG and impact investing are increasingly important to our clients.

There are two core drivers of our work in this area that correspond to two related, but distinct, investment approaches:

- **Fiduciary driver:** ESG factors are among the variables that can, in some instances, drive risk and return across a wide variety of investment approaches. These factors can impact investments in idiosyncratic ways, depending on the investment strategy, asset class, geography, and investment style. As such, integrating ESG factors into the investment process varies commensurately, depending on whether and where they may add material value. We refer to this work as holistic ESG integration.
- **Investor driver:** Increasingly, a wide variety of our clients - insurance companies, pension plans, sovereign wealth funds, non-profits, foundations, endowments, family offices, private clients and more - have a desire to integrate more specialized ESG and impact values, objectives, or views into their investment portfolios. We have built dedicated ESG and impact investing strategies and capabilities in order to address these investment objectives.

Based on these two core drivers, we have integrated ESG and impact capabilities throughout our investing processes in two corresponding approaches:

- **Holistic ESG integration and engagement across our traditional investment approaches** – We believe sustainable, long-term investing extends beyond the evaluation of quantitative factors and traditional fundamental analysis of conventional financial metrics. Where material, it should include the analysis of an entity's impact on its stakeholders, the environment and society. We recognize that these ESG factors can affect investment performance, expose potential investment risks, and provide an indication of management excellence and leadership. To this end, GSAM continues to improve the process of integrating the analysis of these factors into our investment and company engagement processes, where appropriate and consistent with our fiduciary duty, as well as communicate on our progress in this regard and contribute to the development of best practices within the investment community⁹. An additional important component to our comprehensive focus on ESG integration across GSAM is our commitment to stewardship through our proxy voting and company engagement activities. We describe how each of our investing teams integrates ESG in the "Implementation" section of this document.
- **Dedicated platform for ESG and impact investing focused portfolios** – For our clients with a more proactive focus on ESG and impact investing, we have a breadth of targeted ESG and impact investment solutions ranging from low-carbon passive equity strategies to impact private equity programs. We can implement ESG and impact investments across asset classes and impact areas, through a combination of open architecture solutions and in-house strategies and capabilities in both public and private markets. We take a holistic implementation approach, and our ESG and impact investing strategy team can advise across a portfolio, implementing solutions with a highly curated investment approach and fiduciary mindset.

We believe this combined approach has resulted in ESG and impact investing capabilities that enable us to help our clients achieve their ESG and investment objectives, while staying grounded in our core philosophy of serving our clients' investment goals and strictly adhering to our fiduciary duty as an asset manager.

GSAM's Commitment to Stewardship

At Goldman Sachs Asset Management (GSAM), we are committed to industry-leading stewardship, and we strive to prudently manage all company resources for the benefit of all stakeholders – from shareholders and employees to consumers and society broadly. We are continually evaluating companies' corporate strategies, investment and financing activities, management incentives, regulatory policies and environmental impact to promote long-term value creation.

GSAM is a full-service asset manager comprised of a diverse set of portfolio management teams. Every team operates within an integrated structure and carries the responsibility for stewardship. GSAM's portfolio management teams partner on key initiatives but maintain separate investment processes in keeping with their own distinct investment philosophies.

GSAM's fundamental and quantitative equity teams hold investee companies to specific performance expectations. The expressed expectations reflect each company's business opportunities as determined by existing operations, tangible and intangible capital,

⁹ There is no guarantee that these objectives will be met.

financial strength, economic conditions, competitive environment and regulatory exposure. We seek to ensure these standards are realistic and achievable, but if a company falls short of expectations, we escalate appropriately. Short of liquidating a position, escalation may include:

- **Expressing** our views through voting on management and shareholder proposals, per our customized proxy voting guidelines and
- **Engaging** directly with company management.

GSAM's Global Stewardship Team drives the continued enhancement of our customized global proxy voting, and company and industry engagement. This includes partnering with our fundamental and quantitative equity teams to apply the GSAM Global Proxy Voting Policy, and engaging with company management teams throughout the year.

Proxy Voting:

GSAM has developed customized global guidelines on proxy voting in order to execute our voting responsibilities where clients have delegated proxy voting responsibility to us. These guidelines, updated annually to incorporate current issues and our latest views about key governance topics, embody the positions and factors GSAM prioritizes in casting proxy votes. They address a variety of individual topics, including shareholder voting rights, anti-takeover defenses, board structures, the election of directors, executive and director compensation, reorganizations, mergers, issues of corporate social responsibility and various shareholder proposals.

Engagement:

Engagement with company management teams is a key element of GSAM's stewardship process. In this ongoing dialogue, we conduct due diligence and discuss a range of issues to better understand the businesses we invest in. The nature of the business and the circumstances of our investment determine the degree of our engagement, but in our interactions we engage with companies to¹⁰:

- Gain insight into management quality, business model, strategy and financial prospects
- Gather additional information on proxy voting topics and express our views on corporate governance and ESG issues
- Enable the completion of proprietary ESG evaluations for our ESG focused portfolios, understand how ESG practices are driving value, and determine how these practices are integrated in strategy and decision-making
- Promote good corporate governance practices to company senior management and enact positive change

Affiliations and Signatories:

GSAM is a UN Principles of Responsible Investment (UNPRI) signatory and a CDP investor signatory.

GSAM also adheres to numerous global corporate governance and stewardship codes, such as the UK and Japan Stewardship Codes and the Singapore Stewardship Principles. In 2018, GSAM joined the Investor Stewardship Group (ISG), which is a US-based institutional investor and global asset manager group focused on promoting a framework of US Stewardship and Governance.

Please visit our [website](#) for more information related to GSAM's 2018 Stewardship Report, Global Proxy Voting Policies and Voting Records, and various Stewardship Code Statements.

¹⁰ There is no guarantee that these objectives will be met.

Implementation

The following sections outline both how our investment teams integrate ESG factors as part of our traditional investment approaches, as well as our dedicated ESG and impact investing strategies:

- A. Fundamental Equity**
- B. Fixed Income**
- C. Quantitative Investment Strategies**
- D. Private Real Estate**
- D. Alternative Investments & Manager Selection**

A. Fundamental Equity

The GSAM Fundamental Equity team (FE) manages a range of strategies across market capitalizations, investment styles, and emerging and developed markets. FE invests with a long-term view and seeks to allocate capital to companies with shareholder-oriented management teams and quality characteristics. These characteristics may include sustainable or competitive operating advantages, strong balance sheets and cash flow generation, management teams who are excellent stewards of capital, and the potential ability to earn in excess of the cost of capital.

Holistic ESG Integration

We believe that ESG analysis and integration is a natural extension to quality-oriented fundamental research and risk management.¹¹ We seek to evaluate a company management team on many factors, including its focus on creating a sustainable business model and its attention to ESG factors material to its business. Our view on Governance forms the foundation for our analysis; we then consider material environmental and social factors by sector. For some companies and/or sectors, these can be important drivers in evaluating their long-term earnings sustainability and in turn, valuation. We conduct both quantitative and qualitative analysis, which is built upon more than 10,000 meetings with company management each year. These meetings provide a forum to evaluate a company's commitment to shareholders and consider how it compares against its industry and regional peers.

As discussed above, proxy voting and company engagement, or stewardship, are an important part of our holistic focus on ESG integration and responsible, active ownership within the investment process. At GSAM, stewardship is accomplished in a number of ways across portfolio teams. GSAM has adopted a global proxy voting policy, which is updated at least annually to incorporate current beliefs on key corporate governance and ESG topics. Additionally, every proxy vote is reviewed by the investment analyst responsible for that stock. Through a constructive, direct and private dialogue with companies, FE is able to raise awareness of ESG factors and risks, seek enhanced disclosure and discussion, and ultimately influence company behavior. Please see "GSAM's Commitment to Stewardship" above for more information.

Targeted ESG Solutions

While ESG is an integral part of our approach to active management and active ownership across our global business, FE also manages dedicated ESG portfolios for clients who seek an even more targeted approach. In order to quantify ESG quality in these portfolios, we analyze a number of external data sources and utilize our own internal evaluation. Our view on governance forms the foundation of our analysis and we believe is a good indicator of a company's ability to effectively implement responsible business practices. Our evaluation then includes a rigorous analysis of material environmental and social factors, which vary by sector. This is not a box-ticking exercise; rather, it is conducted at a company and sector level in line with our fundamental, active approach and it is informed by ongoing meetings with company management.

FE's targeted ESG offerings seek to pursue a bottom-up, style agnostic investment approach across market capitalizations. The strategies integrate fundamental research focused on alpha generation with in-house ESG evaluation that is informed by active company engagement, to identify material risk and return drivers as core pillars of value creation for the portfolio. The following sector exclusions are also incorporated: Adult Entertainment, Alcohol, Gambling, Tobacco, Weapons and Energy. There are currently four strategy offerings across regions:

- Global Emerging Markets Equity ESG
- GS Global Equity Partners ESG

¹¹ The portfolio risk management process includes an effort to monitor and manage risk, but does not imply low risk. There is no guarantee that these objectives will be met.

- International Equity ESG
- US Equity ESG

While there are nuances in our approaches in different markets, the mission is consistent across our ESG portfolios and aligns with our objective to seek to drive sustainable long term returns for our clients as an active manager. As our clients' ESG objectives continue to evolve and expand, FE continues to build on our experience and seeks to innovate on a broader set of solutions across the global equity complex.

B. Fixed Income

The GSAM Fixed Income team manages a range of strategies within global fixed income markets, including specialized single-sector portfolios, diversified multi-sector portfolios, and global liquidity solutions.¹²

Holistic ESG Integration

We recognize the importance of ESG factors and the effect these factors may have on investment performance and the risk profile of our fixed income portfolios. As such, we integrate ESG analysis into our fixed income investment process.

We integrate the analysis of ESG factors into our fundamental bottom-up investment process, where we seek to identify factors which we believe are key to determining whether a bond/sector would outperform or underperform the market. We take the same approach to analyzing ESG themes, seeking to value ESG topics like we would any other credit factor; by assessing the potential impact on credit quality and spreads; and, where relevant, we incorporate this into our investment recommendations.

Our approach to ESG integration varies by strategy, as ESG factors can impact credit quality in different ways.

Below, we outline our approach to integrating consideration of ESG factors into our investment process for 1) corporate credit debt, 2) emerging markets debt (corporate and sovereign), 3) securitized credit, 4) government/government related debt and 5) municipal credit.

- 1) In our approach to investing in **Corporate Credit Debt**, we rely on the fundamental analysis of our research analysts in identifying key drivers that will influence issuer credit quality and spreads/yields. We believe that ESG-related themes can be a "Key Driver" for a credit (i.e. it can be one of 3 to 5 key factors that determine credit quality and spreads). In addition, we believe that analysis of ESG factors helps our analysts identify drivers that more traditional forms of credit analysis can potentially overlook. In our view, our analysts are best suited to evaluate these topics as part of their investment process – they have a deep understanding of the sectors and companies for which they are responsible, and are personally meeting with management teams. To drive the analysis of ESG we rely on our own bottom-up research as well as third-party analysis, including research from the sell-side and specialized ESG research organizations, which provide both quantitative and qualitative measures of performance.
- 2) In our approach to investing in **Emerging Markets Debt (EMD)**, we rely on the fundamental analysis of our dedicated sovereign and corporate credit research analysts. They focus on identifying material drivers of risk and return, which can include quantitative and qualitative factors, as well as financial and non-financial factors. We believe ESG factors can be key drivers of both risk and return in EMD, particularly due to variations in ESG approaches in developing countries. We also believe ESG factors can serve as an important indicator of risk that analysis solely focused on financial factors can potentially overlook. We believe that ESG themes could have a material impact on credit fundamentals and valuations and as a result, we integrate the analysis of ESG themes into our EMD investment process.

Within the **EMD corporate credit space**, our ESG analysis reflects both the sovereign ESG backdrop and company-specific factors, as either could have a material impact on EM corporate bond spreads. Corporate governance is a particular concern when investing in EM corporate debt, as more EM companies are held by a few key individuals, families, or the state than in other markets, which may be compounded by the possible difficulties of enforcing creditor claims in bankruptcy. We also consider the potential for political support or interference, as investors remain very concerned about shareholder rights in less transparent emerging economies. We have created a series of proprietary factors based on years of industry experience which seek to identify the ESG indicators or 'red flags' that were precursors to historical corporate credit events.

Within the **EMD sovereign credit space**, we believe ESG factors can influence fundamentals, economic growth and investor sentiment. We capture longer term ESG factors when we assess the quality of institutions, and shorter term factors when we assess politics and the policy environment. Our goal is to identify qualitative factors that can have a material impact – either positive or negative – on bond and currency valuations.

¹² Diversification does not protect an investor from market risk and does not ensure a profit.

- 3) In our approach to investing in **Securitized Credit**, ESG factors are principally considered in relation to investments in securitized sectors such as agency mortgage-backed securities, asset-backed securities, commercial mortgage-backed securities, and collateralized loan obligations. These factors are integrated into our investment process, and play an important role in determining our investment strategies.

For example we recognize that climate change may be a principal factor contributing to more frequent and intense hurricanes impacting coastal regions of the United States. In securitized investments this may result in higher default rates from underlying borrowers in the impacted areas. Mitigating the impact of such defaults is an important consideration of our investment process.

- 4) In our approach to investing in **Government and Government-related debt**, we believe ESG factors can serve as an important indicator of risk that can influence economic growth/stability and investor sentiment. As a result, we evaluate these factors where we believe they can have a material impact on credit fundamentals and valuations. We quantify longer term ESG factors when we assess the quality of institutions, and shorter term factors when we assess politics and the policy environment.

As ESG-related factors have become more material, our team continues to explore how to best integrate ESG factors into our sovereign analysis. We recognize that countries with low ESG standards tend to exhibit higher risk factors and require additional in-depth research on top of our fundamental analysis of every sovereign's balance sheet. Our goal is to identify factors that can materially impact, either positively or negatively, bond and currency valuations.

- 5) In our approach to investing in **Municipal Credit**, we believe the consideration of ESG factors should occur alongside fundamental analysis focused on political-managerial, economic, financial and debt factors. Our dedicated municipal research team members have designated responsibilities by both state and sector, and are responsible for identifying both specific issuer risks and broader macroeconomic trends. The underpinnings of credit risk differ meaningfully across location and sector. These varied fundamentals drive risk and return, with ESG being one of the contributing factors to the broad risk categories mentioned above.

As part of our investment process for all strategies, we regularly communicate with issuers on all topics that impact credit risk, including ESG-related factors. We believe that the act of raising these factors where relevant to credit quality, risk management or credit spreads, serves as an important signal to management teams about ESG's relevance to our investment approach. Frequently, the manner in which management teams acknowledge, manage and mitigate these factors provides important insights into how they view (and the importance they ascribe to) these issues. By meeting with management teams we are able to better judge their preparedness and understand how they are adapting to various risks. Additionally, we often collaborate with the GSAM Global Stewardship Team on specific thematic engagement initiatives.

Targeted ESG Solutions

GSAM Fixed Income offers ESG Enhanced strategies across fixed income: we can build ESG enhanced portfolio in credit (high yield/investment grade/emerging market debt/securitized) and municipal debt (traditional and taxable). We focus on a high level of investment rigor and seek market rates of return: we seek to align portfolios with ESG factors, while minimizing tracking error and integrating GSAM credit research. We create custom portfolios for clients: we can design ESG portfolios in the context of clients' traditional benchmarks and liquidity and duration targets.

Please see below for examples of custom client solutions:

- Within our ESG Enhanced U.S. Municipals strategy, for example, the team may pursue investments that offer an enhanced opportunity for positive impact relative to other credits within their respective municipal sectors. The team may pursue green bond issuances, where appropriate given liquidity, duration, and diversification. In addition, the team will also consider excluding certain issuances based on sources of revenue or purpose of issuance. Sample potential exclusions or holdings of existing portfolios to be transitioned out of may include tobacco, gaming, fossil fuel exposure, etc.

C. Quantitative Investment Strategies

Our Quantitative Investment Strategies (QIS) team uses data-driven techniques to systematically uncover sources of alpha, replicate hedge fund strategies/risk premia and implement customized, rules-based equity solutions that incorporate client goals around factor tilts, taxes, and/or ESG. Our proprietary risk models seek to ensure that risk is actively managed and allocated according to our investment criteria. We offer a range of strategies across market capitalizations, regions and investment styles that can be tailored to meet specific client priorities.

Holistic ESG Integration

Our quantitative equity alpha process, known as Equity Insights, uses stock selection models to attempt to capture the effects of corporate governance indirectly via indicators of a company's return potential. These indicators include a company's growth opportunities, competitive positioning, regulatory environment, capital structure, quality of management, etc. We believe that the investment themes of our quantitative equity process thereby capture indirectly the quality of companies' corporate governance. Furthermore, our quantitative equity alpha team has been engaged in research on the relationship between various ESG factors and their impact on portfolio risks and returns. That research identified several ESG factors that are positively correlated with alpha; these signals have been included in our alpha/return models for all relevant portfolios. This research also identified a more nuanced metric that helps tilt portfolios towards or away from certain ESG related themes that are trending (either positively or negatively) in the market, which was also correlated with alpha.¹³ The QIS team's ESG framework is continually evolving to reflect the latest client concerns regarding ESG risks, to capture new and differentiated data, and to refine the investment process underlying the team's ESG strategies.

Targeted ESG Solutions

QIS also offers several rules-based equity strategies that aim to track the performance of third-party indices, capture rewarded equity factors, or provide tailored, tax-aware exposure to the equity market. These strategies can be customized to incorporate ESG tilts (such as reducing exposure to greenhouse gas emissions or fossil fuel reserves) and screens (such as removing exposure to controversial weapons, thermal coal, or tobacco). Depending on a client's specific objectives, these ESG tilts and screens may be motivated by values alignment and/or views on long-term financial performance.

Our quantitative investment teams have worked with clients to create a range of customized ESG solutions, drawing on our deep experience with data and sophisticated risk management techniques. Three examples of custom client solutions include:

- GSAM collaborated with S&P Dow Jones Indices to create and launch the S&P Environmental & Socially Responsible strategies, designed to offer investors enhanced exposure to securities meeting sustainability investing criteria while maintaining a risk and performance profile similar to their respective underlying indices – the S&P 500 and the S&P Developed BMI Ex-U.S. & Korea LargeMidcap. The constituents are selected using a transparent, rules-based methodology where stocks engaging in fossil fuel heavy industries or in the production and sale of tobacco, cluster bombs, landmines, nuclear and other military armaments are excluded. 75% of the stocks with the highest ranking E&S Scores in each sector are selected for index membership. Hence we are able to both exclude objectionable exposures, including fossil-fuel intensive companies, while proactively re-optimizing a portfolio towards more sustainable companies, while using sophisticated risk management.
- Additionally, GSAM worked with the New York State Common Retirement Fund (NYS) in 2015 to develop a Risk Aware, Low Emissions Equity Investment program. The Fund committed an initial \$2 billion to this strategy within its U.S. equity portfolio to invest in companies that in aggregate seek to have greenhouse gas emissions that are approximately 70 percent lower than that of the client's US large cap equity benchmark. The low emission strategy seeks to eliminate or underweight stock ownership in some of the worst greenhouse gas emitters based on independent emissions data while staying within a defined risk tolerance. In 2018, the Fund doubled its commitment to the Risk Aware, Low Emissions Equity Strategy to \$4 billion.¹⁴
- In 2018, Goldman Sachs Asset Management launched an exchange-traded fund that seeks to track an index created by JUST Capital, a non-profit that helps people, companies, and markets do the right thing by tracking the business behaviors Americans care about most, including how companies treat their workers and how they impact the environment. At Goldman we saw this as an

¹³ There is no guarantee that these objectives will be met.

¹⁴ Source: *The Wall Street Journal*, "New York State Doubles Bet on Low-Carbon Companies," Jan. 30 2018. There is no guarantee that these objectives will be met.

interesting thesis – if people have the right information, they will buy from, invest in, work for, and otherwise support companies that align with their values.

Our teams welcome the opportunity to work with clients to design and implement customized strategies to meet their objectives.

D. GSAM Private Real Estate

GSAM Private Real Estate (PRE) is responsible for managing all of GSAM's private real estate investments. The team focuses on three main private real estate strategies including: (1) Core; (2) Core-plus; and (3) Value-add. PRE employs an active management approach, seeking to drive returns for investors through asset management initiatives including renovating and rebranding assets and implementing energy and operating efficiency programs to realize cost savings. The team manages over \$2.7 billion of real estate assets across commingled and customized portfolios.

Holistic ESG Integration

GSAM PRE aims to integrate environmental and social considerations to create value for our investors, tenants and the community. We also aim to monitor and manage environmental and social risks alongside the economic risks of our investments. We will seek to leverage our resources, relationships, and knowledge to integrate ESG in the most effective and efficient manner from sourcing to eventual disposition of our investments.

Our implementation of ESG measures begins at the sourcing stage and continues throughout the lifecycle of an investment until disposition. Our first step is to match GSAM PRE's core ESG competencies with opportunities in our investment pipeline. An initial review for ESG investment opportunities is completed as an integrated part of how we evaluate an investment's fundamental merits. This review is intended to provide opportunities that are aligned with both ESG considerations and value creation. Certain opportunities, such as energy conservation measures, may also involve the commissioning of a third party engineering team to conduct additional diligence at a property. We then begin to quantify the cost / return of each potential measure, make go / no-go decisions based on this analysis, and then incorporate the cost and return of any approved measures into underwriting, as well as our property manager's budget going forward.

In the context of private real estate some of the ESG improvements we consider for each property include:

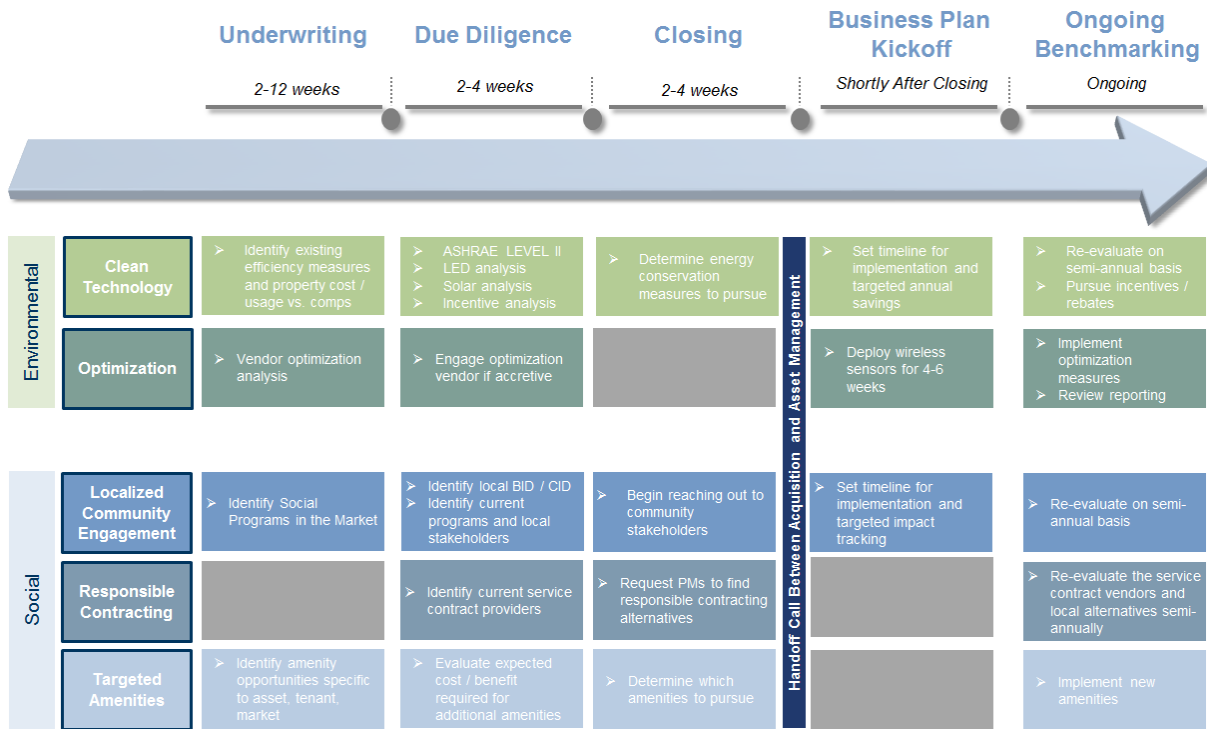
- Environmental: Increased energy efficiency at properties through the use of clean technology, building optimization techniques, and sustainable materials, which ultimately reduce costs and carbon footprint
- Social: Heightened focus on social considerations that ultimately improve a property's brand and amenities, such as responsible vendor contracting, local community engagement, and the addition of quality of life oriented amenities
- Governance: Increased transparency into the amount and type of ESG projects within the portfolio and tailored energy cost and usage tracking techniques

Once an investment is made and ESG measures have begun, GSAM PRE tracks the implementation of ESG improvements as part of its asset management procedures in partnership with Goldman's Realty Management Division (RMD). This tracking includes ongoing review during an investment's hold, whether through our internal ESG working groups or with our external property managers. Specifically with respect to our energy related investments, we aim to track the impact on energy cost and usage pre- and post-implementation, as well as benchmark cost and usage to the property's peer set, and compare it to data for periods pre-acquisition if available. We utilize third party technology as often as possible to monitor and improve the environmental impact of these projects.

In addition to tracking the implementation of identified opportunities, GSAM PRE requests its property managers consider and propose additional ESG improvement opportunities at each property. Through this approach we are able to pursue more granular asset, tenant, or geographically specific opportunities that may be impactful for a given investment.

Please refer to the graphic on the following page which highlights GSAM PRE's integration of ESG through the underwriting, acquisition and asset management phases.¹⁵

¹⁵ For illustrative purposes only.



Ultimately, the programs that are selected for integration and implementation seek to be targeted, high impact programs; however, they may also be scalable across the portfolio. We will continue to evolve our approach to ESG to achieve environmental and social impact where possible, with the primary focus of maximizing consistent and persistent long-term performance for our investors.¹⁶

E. Alternative Investments & Manager Selection (“AIMS”) Group

The Goldman Sachs Alternative Investments & Manager Selection (“AIMS”) Group provides investors with investment and advisory solutions across leading hedge fund managers, private equity funds, real estate managers, and traditional long-only managers. The AIMS Group manages globally diversified programs, targeted sector-specific strategies, customized portfolios, and a range of advisory services. Our investors access opportunities through new fund commitments, fund-of-fund investments, strategic partnerships, secondary-market investments, co-investments, and seed-capital investments. The AIMS Group provides manager diligence, portfolio construction, risk management, and liquidity solutions to investors, drawing on Goldman Sachs’ market insights and risk management expertise¹⁷. Assessment of potential risks as well as potential rewards is integral to our investment process. We seek to analyze ESG issues as one of many factors in our due diligence process. Within the AIMS Group, there is a discrete vertical dedicated to sourcing, vetting, and making investments in managers that focus explicitly on ESG and impact investing (“AIMS Imprint”), the core of which is the investment team from Imprint Capital.

Holistic ESG Integration

During our due diligence process, the AIMS Group evaluates select managers’ ESG awareness and integration as an embedded part of traditional financial and operational due diligence. We believe ESG factors represent both material risks and potential opportunities for the managers we invest in and look to ensure that our partners have the right teams, processes, and resources in place to adequately manage risks and capitalize on opportunities. The ESG analysis focuses on the following:

¹⁶ There is no guarantee that these objectives will be met. The portfolio risk management process includes an effort to monitor and manage risk, but does not imply low risk. GSAM PRE leverages the resources of RMD and Goldman Sachs & Co. LLC subject to legal, internal, and regulatory restrictions. RMD, located in Texas, is a separate entity from GSAM PRE.

¹⁷ GSAM leverages the resources of Goldman Sachs & Co. LLC subject to legal, internal and regulatory restrictions.

- **Firm Culture.** The prioritization and incorporation of ESG into the management of the Firm's business.
- **Investment Philosophy.** The degree to which the manager views ESG as a material driver of investment performance.
- **Team & Resources.** The level of expertise and organization of the team incorporating ESG, including the level and use of external resources.
- **Investment Process.** The degree to which environmental, social and governance-related factors are formally incorporated into the investment and decision-making process.
- **Engagement.** The level and type of engagement with portfolio companies on ESG; ability to add value post investment and degree to which this is reflected in realized outcomes.

In addition to a quantitative and qualitative ESG analysis as part of our due diligence, we spend significant time with our managers discussing how they approach ESG integration, and surfacing specific ESG concerns or opportunities. In certain instances these discussions will be grounded in a quantitative ESG analysis of the manager's underlying holdings, which helps inform our dialogue. We furthermore look to share best practices in ESG integration across industries and investment styles with our managers.

Targeted ESG and Impact Investing Solutions

As part of the AIMS Group, AIMS Imprint is committed to working with clients to develop and manage custom ESG and impact investment programs and portfolios across impact themes and asset classes, focusing on investments made with the intention to potentially generate measurable social and environmental impact alongside a financial return. Selectively, AIMS Imprint works with external managers to design and/or seed new dedicated ESG and impact investing strategies to address market gaps. We have more than 12 full-time investment professionals dedicated solely to ESG and impact investments as of December 2018.

We do not treat impact investing as a category in and of itself, but rather view it as a set of underlying investment themes across private markets such as clean energy, health, and food & agriculture. We employ a research-driven process to ascertain the characteristics of each theme to help us avoid crowded sectors and find potential value in less efficient markets that often benefit from secular growth trends. We complete market scans and supplement with a quarterly views process to help us determine relative attractiveness on an ongoing basis.

For impact investment managers, we also evaluate impact factors alongside the ESG factors, mentioned above. Impact factors assess the manager on its ability to have direct social and/or environmental impacts, alongside potential financial return.

Our AIMS Imprint team has worked with clients to create a range of customized ESG and impact investing solutions, drawing particularly on our deep experience and resources devoted to private market impact investing. For example:

- A \$2 billion Minnesota-based family foundation. The client's mission is to improve the quality of life for present and future generations by dedicating its resources to support, unite, and empower those it serves. In 2013, the board embarked on a process to discover how the endowment could be restructured to further its mission. After committing in 2014 to investing 10% of its endowment to mission-aligned strategies, the client sought specific investments that may generate financial return, meet its fiduciary duty and drive program learning. We worked with the client to source, diligence, recommend and manage mission-aligned investments across public and private markets. The client has committed more than \$150 million of capital and we have a dedicated annual review of the portfolio to identify opportunities to further refine impact alignment.¹⁸

For custom ESG and impact portfolios, we produce an annual ESG and impact report that contains qualitative and quantitative information on ESG and impact across asset classes. In public markets, we assess managers holistically based on: ESG characteristics of their holdings; proxy voting and shareholder engagement activity; and ESG capabilities, approach and process. In private markets, we track the focused list of metrics agreed upon during diligence and evaluate impact qualitatively based on an assessment by our investment team as well as illustrative impact stories.

¹⁸ This material makes no implied or express recommendations concerning the manner in which any client's account should or would be handled, as appropriate investment strategies depend upon the client's investment objectives.

Enhancing the Learning Return, Collaboration and Field Building

As part of our commitment to ESG and impact investing, GSAM has proactively focused on working with our clients on communication, education, information sharing, and knowledge building as vital components of this work. We spend time with trustees, investment committees, boards, and other stakeholders to discuss various ESG and impact investment approaches and their implications, provide portfolio analytics and proposals, and share learnings and best practices from peers. Some of our clients specifically focus on how learning from their impact investments can inform and improve their philanthropic work.

GSAM recognizes that our own holdings in investee companies, like those of many other investors, are a small fraction of the total equity outstanding, and that shareholders can be more effective owners if our views are part of a broader consensus within the investor community. To this end, we actively monitor emerging issues, regulatory developments, concerns of key stakeholders, as well as best practices relating to environmental and social risk management. As part of this undertaking, we engage with non-governmental organizations and periodically review and update our guidelines for emerging issues and evolving environmental and social concerns.

GSAM became a signatory to the United Nations Principles for Responsible Investing (UNPRI) in December 2011. The Principles set forth by the UNPRI are a set of best practices for incorporating ESG issues into investment decision-making where consistent with fiduciary responsibilities. As a signatory, GSAM has committed to considering the investment implications of ESG issues within our portfolio management and investment decision-making processes where appropriate and consistent with our fiduciary duty. We report annually to the UN PRI on our ESG and impact investing commitment and activities and publically disclose that report on our [website](#).

GSAM is also a CDP investor signatory, and a signatory to the UK and Japan Stewardship Codes and Green Bond Principles. In 2018, GSAM joined the Investor Stewardship Group (ISG), which is a US-based institutional investor and global asset manager group focused on promoting a framework of US Stewardship and Governance. In addition, we support the Singapore Stewardship Principles.

GSAM staff have furthermore served as advisors or board members to a diverse set of organizations in the ESG and impact space including groups such as the Sustainability Accounting Standards Board (SASB) Investor Advisory Group, the U.S. National Advisory Board (NAB) of the G8 Social Impact Investing Task Force, the U.S. Alliance on Impact Investing, the Global Impact Investing Network's (GIIN) ImpactBase initiative, the Global Social Venture Competition (GSVC), McKinsey's working group on Social Impact Bonds, Global Giving, the Sustainable Food Lab, the UN Capital Development Fund, the International Interfaith Investment Group, and a range of others.

We also look to share case studies of our work with clients, research pieces, podcasts and video interviews, and more information on the ESG and impact investing field on our [website](#).

Conclusion

As GSAM, we believe that ESG and impact investing factors can be material to investment performance and thus will continue to work towards deeper ESG integration across our core investment teams. ESG and impact investing are increasingly important to our clients who are seeking to build portfolios that integrate ESG and impact considerations while maintaining the rigor and risk-return standards of investment management. We have built the team, structure, process, and philosophy that we believe can best help our clients achieve their ESG and impact investing goals. We remain committed to continuing to build a market-leading ESG and impact investing platform and strengthen the overall field.

General Disclosures

This material is provided for informational purposes only. It is not an offer or solicitation to buy or sell any securities.

There is no guarantee that these objectives will be met.

Views and opinions expressed are for informational purposes only and do not constitute a recommendation by GSAM to buy, sell, or hold any security. Views and opinions are current as of the date of this presentation and may be subject to change, they should not be construed as investment advice.

Although certain information has been obtained from sources believed to be reliable, we do not guarantee its accuracy, completeness or fairness. We have relied upon and assumed without independent verification, the accuracy and completeness of all information available from public sources.

Environmental, Social, and Governance (“ESG”) strategies may take risks or eliminate exposures found in other strategies or broad market benchmarks that may cause performance to diverge from the performance of these other strategies or market benchmarks. ESG strategies will be subject to the risks associated with their underlying investments’ asset classes. Fixed Income securities are subject to interest rate, price and credit risks. Prices tend to be inversely affected by changes in interest rates. Equity securities are more volatile than bonds and subject to greater risks. Small and mid-sized company stocks involve greater risks than those customarily associated with larger companies. Private equity investments, are speculative and illiquid, involve a high degree of risk and have high fees and expenses that could reduce returns; they are, therefore, intended for long-term investors who can accept such risks. Real estate investments involve a high degree of risk including, but not limited to, changes in the real estate markets, the financial conditions of tenants, zoning and other laws, tax rates, terms of debt financing, and unforecastable factors, such as substantial national or international events.

Supplemental Risk Disclosure for All Potential Direct and Indirect Investors in Hedge Funds and other private investment funds (collectively, “Alternative Investments”)

In connection with your consideration of an investment in any Alternative Investment, you should be aware of the following risks:

Alternative Investments are subject to less regulation than other types of pooled investment vehicles such as mutual funds. Alternative Investments may impose significant fees, including incentive fees that are based upon a percentage of the realized and unrealized gains, and such fees may offset all or a significant portion of such Alternative Investment’s trading profits. An individual’s net returns may differ significantly from actual returns. Alternative Investments are not required to provide periodic pricing or valuation information. Investors may have limited rights with respect to their investments, including limited voting rights and participation in the management of the Alternative Investment.

Alternative Investments often engage in leverage and other investment practices that are extremely speculative and involve a high degree of risk. Such practices may increase the volatility of performance and the risk of investment loss, **including the loss of the entire amount that is invested.**

Alternative Investments may purchase instruments that are traded on exchanges located outside the United States that are “principal markets” and are subject to the risk that the counterparty will not perform with respect to contracts.

Past performance does not guarantee future results, which may vary. The value of investments and the income derived from investments will fluctuate and can go down as well as up. A loss of principal may occur.

Alternative Investments are offered in reliance upon an exemption from registration under the Securities Act of 1933, as amended, for offers and sales of securities that do not involve a public offering. No public or other market is available or will develop. Similarly, interests in an Alternative Investment are highly illiquid and generally are not transferable without the consent of the sponsor, and applicable securities and tax laws will limit transfers.

Alternative Investments may themselves invest in instruments that may be highly illiquid and extremely difficult to value. This also may limit your ability to redeem or transfer your investment or delay receipt of redemption or transfer proceeds.

Alternative Investments are not required to provide their investors with periodic pricing or valuation information.

Alternative Investments may involve complex tax and legal structures and accordingly are only suitable for sophisticated investors. You are urged to consult with your own tax, accounting and legal advisers regarding any investment in any Alternative Investment.

Prospective investors should inform themselves as to any applicable legal requirements and taxation and exchange control regulations in the countries of their citizenship, residence or domicile which might be relevant.

Private equity investments are speculative, highly illiquid, involve a high degree of risk, have high fees and expenses that could reduce returns, and subject to the possibility of partial or total loss of fund capital; they are, therefore, intended for experienced and sophisticated long-term investors who can accept such risks. There can be no assurance that any objectives or targets stated in this material can be achieved; any targets provided are subject to change and do not provide any assurance as to future results. The ability of underlying funds to achieve their objectives or targets depends upon a variety of factors, not the least of which are political, public market and economic conditions. Any historical performance of individual partnerships shown is for informational purposes only and does not guarantee their future performance, which can vary considerably. The trading market for the securities of any portfolio investment of the underlying funds may not be sufficiently liquid to enable such funds to sell such securities when it believes it is most advantageous to do so, or without adversely affecting the stock price. In addition, such portfolio companies may be highly leveraged, which leverage could have significant adverse consequences to these companies and the funds offered by AIMS Private Equity. Furthermore, restrictions on transferring interests in AIMS Private Equity funds may exist so prospective investors should be prepared to retain their investments in any AIMS Private Equity fund until the fund liquidates. For a complete discussion of risks that are unique to a particular AIMS Private Equity fund, please refer to the respective fund’s offering documents, which should be carefully reviewed prior to investing.

Conflicts of Interest

There may be conflicts of interest relating to the Alternative Investment and its service providers, including Goldman Sachs and its affiliates. These activities and interests include potential multiple advisory, transactional and other interests in securities and instruments that may be purchased or sold by the Alternative Investment. These are considerations of which investors should be aware and additional information relating to these conflicts is set forth in the offering materials for the Alternative Investment.

Real estate investments are speculative and illiquid, involve a high degree of risk and have high fees and expenses that could reduce returns. These risks include, but are not limited to, fluctuations in the real estate markets, the financial conditions of tenants, changes in building, environmental, zoning and other laws, changes in real property tax rates or the assessed values of Partnership Investments, changes in interest rates and the availability or terms of debt financing, changes in operating costs, risks due to dependence on cash flow, environmental liabilities, uninsured casualties, unavailability of or increased cost of certain types of insurance coverage, fluctuations in energy prices, and other factors not within the control of the General Partner, such as an outbreak or escalation of major hostilities, declarations of war, terrorist actions or other substantial national or international calamities or emergencies. The possibility of partial or total loss of an investment vehicle's capital exists, and prospective investors should not invest unless they can readily bear the consequences of such loss.

Further, some real estate investments may require development or redevelopment, which carries additional risks relating to the availability and timely receipt of zoning and other regulatory approvals, the cost and timely completion of construction, and the availability of permanent financing on favorable terms.

Real estate investments will be highly illiquid and will not have market quotations. As a result, the valuation of real estate investments involves uncertainty and may be based on assumptions. Accordingly, there can be no assurance that the appraised value of a real estate investment will be accurate or further, that the appraised value would in fact be realized on the eventual disposition of such investment.

In addition, real estate assets may be highly leveraged, which leverage could have significant adverse consequences to the assets and therefore an investment vehicle. In particular, an investment vehicle will lose its investment in a leveraged asset more quickly than a non-leveraged asset if the asset declines in value. You should understand fully the risks associated with the use of leverage before making an investment in a real estate investment vehicle.

Emerging markets securities may be less liquid and more volatile and are subject to a number of additional risks, including but not limited to currency fluctuations and political instability.

The S&P 500 Index is the Standard & Poor's 500 Composite Stock Prices Index of 500 stocks, an unmanaged index of common stock prices. The index figures do not reflect any deduction for fees, expenses or taxes. It is not possible to invest directly in an unmanaged index.

The Russell 2000 Index is an unmanaged index of common stock prices that measures the performance of the small cap segment of the US equity universe.

The US Dollar Index measures the US unit against a basket of six other currencies.

This information discusses general market activity, industry or sector trends, or other broad-based economic, market or political conditions and should not be construed as research or investment advice. This material has been prepared by GSAM and is not financial research nor a product of Goldman Sachs Global Investment Research (GIR). It was not prepared in compliance with applicable provisions of law designed to promote the independence of financial analysis and is not subject to a prohibition on trading following the distribution of financial research. The views and opinions expressed may differ from those of Goldman Sachs Global Investment Research or other departments or divisions of Goldman Sachs and its affiliates. Investors are urged to consult with their financial advisors before buying or selling any securities. This information may not be current and GSAM has no obligation to provide any updates or changes.

References to indices, benchmarks or other measures of relative market performance over a specified period of time are provided for your information only and do not imply that the portfolio will achieve similar results. The index composition may not reflect the manner in which a portfolio is constructed.

Goldman Sachs does not provide accounting, tax, or legal advice. Notwithstanding anything in this document to the contrary, and except as required to enable compliance with applicable securities law, you may disclose to any person the US federal and state income tax treatment and tax structure of the transaction and all materials of any kind (including tax opinions and other tax analyses) that are provided to you relating to such tax treatment and tax structure, without Goldman Sachs imposing any limitation of any kind. Investors should be aware that a determination of the tax consequences to them should take into account their specific circumstances and that the tax law is subject to change in the future or retroactively and investors are strongly urged to consult with their own tax advisor regarding any potential strategy, investment or transaction.

High-yield, lower-rated securities involve greater price volatility and present greater credit risks than higher-rated fixed income securities.

An investment in real estate securities is subject to greater price volatility and the special risks associated with direct ownership of real estate.

Tracking Error (TE) is one possible measurement of the dispersion of a portfolio's returns from its stated benchmark. More specifically, it is the standard deviation of such excess returns. TE figures are representations of statistical expectations falling within "normal" distributions of return patterns. Normal statistical distributions of returns suggests that approximately two thirds of the time the annual gross returns of the accounts will lie in a range equal to the benchmark return plus or minus the TE if the market behaves in a manner suggested by historical returns. Targeted TE therefore applies statistical probabilities (and the language of uncertainty) and so cannot be predictive of actual results. In addition, past tracking error is not indicative of future TE and there can be no assurance that the TE actually reflected in your accounts will be at levels either specified in the investment objectives or suggested by our forecasts.

Case studies and examples are for illustrative purposes only.

Diversification does not protect an investor from market risk and does not ensure a profit.

The portfolio risk management process includes an effort to monitor and manage risk, but does not imply low risk.

Past performance does not guarantee future results, which may vary. The value of investments and the income derived from investments will fluctuate and can go down as well as up. A loss of principal may occur.

Confidentiality

No part of this material may, without GSAM's prior written consent, be (i) copied, photocopied or duplicated in any form, by any means, or (ii) distributed to any person that is not an employee, officer, director, or authorized agent of the recipient.

© 2019 Goldman Sachs. All rights reserved. Compliance Code: 162261-OTU-946146