FIXED INCOME MUSINGS

INFLATION CHECK-IN

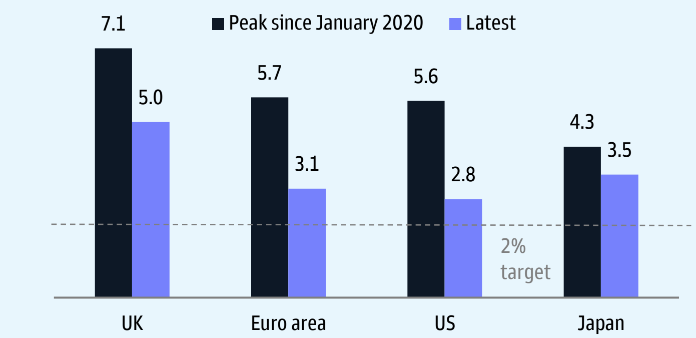
US – January setback. Core PCE inflation, the Fed's preferred measure of price pressures, rose by 0.4% in January, the largest monthly increase in a year, confirming the firm signal from both core CPI and PPI inflation. While start-of-the-year price increases were anticipated, the strength in owners' equivalent rent – the largest component of core CPI – bears monitoring. That said, ongoing disinflation in goods and services as the labor market rebalances should allow the Fed to commence rate cuts this summer.

Euro area – falling slowly. Annual headline and core inflation both eased less than expected in January, further delaying the expected timeline for rate cuts. ECB President Lagarde noted wage growth is "expected to become an increasingly important driver of inflation dynamics." Encouragingly, the ECB indicator of negotiated wages fell from a record high of 4.7% in the third quarter to 4.5% in the fourth quarter which should ease fears of elevated wages translating into prices. We continue to expect the first rate cut to be in June given slow but steady disinflation and a gradually easing labor market.

Japan – rate hikes on the horizon? Despite falling for a third consecutive month, annual national core inflation rose above consensus expectations in January. In response, the 2-year Japanese Government Bond yield reached the highest level since 2011 as stronger-than-expected inflation suggests an exit from negative interest rates in the coming months remains plausible. In addition, we think spring wage negotiations in March will confirm rising wage pressures, further supporting a rate hike in April.

Disinflation still on track despite recent bump

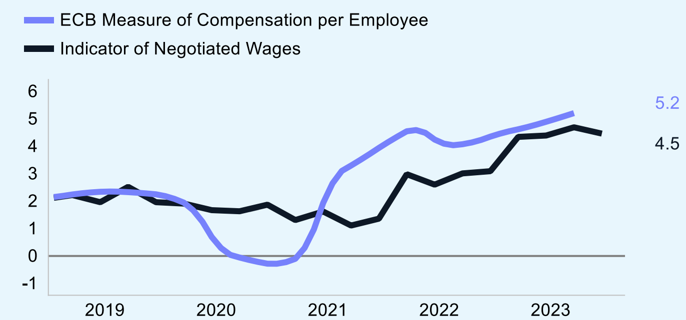
Annual core inflation (%)



Source: Goldman Sachs Asset Management, Macrobond. As of January 2024. US denotes core PCE inflation. Japan denotes national core CPI inflation (excludes fresh food and energy).

Euro area wage growth – elevated but easing

Annual wage growth (%)



Source: Goldman Sachs Asset Management, Macrobond. As of December 2023.

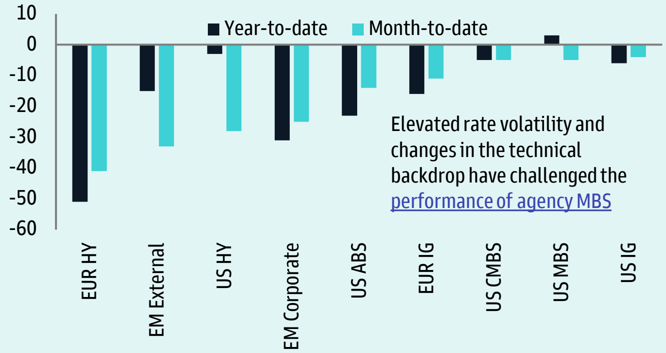
NAVIGATING FIXED INCOME

What happened in February?

Ongoing strength in the US economy, as reflected by a resilient labor market and signals from January PMI surveys, alongside improving sentiment across Europe have boosted risk assets in February. In contrast, sovereign bond yields fluctuated as financial markets pulled back the number of expected central bank rate cuts for 2024. Resilient growth data allowed central bank officials to push back against expectations of early policy easing as they wait for further evidence of disinflation. For context, global government bonds exited February 1.9% lower. That said, we continue to expect central banks to cut policy rates this year – albeit later than initially expected – which should dampen upside rate volatility.

Spreads generally tighter on the month and year

Fixed income spread changes (basis points)



Source: Goldman Sachs Asset Management, Macrobond. As of February 29, 2024.

LEARNINGS FROM EARNINGS

Robust earnings. Corporate issuers in the US reported better-than-expected earnings in the fourth quarter. EBITDA increased by about 4% for the median company relative to a year ago as net profit margins showed signs of strength. That said, management teams maintained conservative guidance.

Challenges in Europe. In contrast to US companies, earnings of European companies decelerated compared to the prior quarter. Net profit margins of European companies also faced greater headwinds from higher minimum wages and slower economic growth.

Balance sheet conservatism. We have observed cash flow allocated to capex, dividends and share buybacks remain moderate. In fact, they have rarely been at this level outside of a recession period. We think management teams are responding to higher rates and the companies that are more exposed to rising interest costs are proceeding more cautiously than those we estimate are less exposed.

Q4 2023 earnings highlights

86% Share of operating cash flow US companies are spending on capex, dividends and buybacks[1]

52% Share of European companies that beat EPS expectations, the lowest level since 2019[2]

Source: [1] Bloomberg and calculations from Goldman Sachs Asset Management. [2] Based on consensus from the Stoxx 600. As of February 29, 2024.

Past performance does not guarantee future results, which may vary. The economic and market forecasts presented herein are for informational purposes as of the date of this presentation. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this presentation. Earnings before interest, taxes, depreciation, and amortization (EBITDA).

CENTRAL BANK SNAPSHOT

	Interest Rate Policy	Balance Sheet Policy	Outlook	Our outlook relative to market-implied pricing
Fed	Federal funds rate: 5.25-5.5% Prior changes: July, May, March, February 2023 (+25bps) December 2022 (+50bps) June, July, September and November 2022 (+75bps) May 2022 (+50bps) March 2022 (+25bps)	The Fed has engaged in passive QT since June 2022, reducing reinvestments of proceeds from maturing securities held on its balance sheet.	We believe the Fed will lower the Fed funds rate by 0.25% in June and anticipate a total of four cuts in 2024. Expected rate at end-2024: 4.25-4.5%	Neutral
ECB	Deposit facility rate: 4% Prior changes: September, July, June, May 2023 (+25bps) March, February 2023 and December 2022 (+50bps) September and October 2022 (+75bps) July 2022 (+50bps), the first hike since 2011	The ECB began winding down its balance sheet in March 2023 and ended reinvestments of securities purchased through its APP in July 2023. Reinvestments of proceeds from maturing securities purchased through the PEPP will be wound down from July 2024 and end in December 2024.	We foresee a 0.25% rate cut in June, followed by further cuts in September and December. Faster disinflation or intensifying downside growth risks may motivate larger and sooner rate cuts. Expected rate at end-2024: 3.25%	Slightly dovish
BoE	Bank Rate: 5.25% Prior changes: August 2023 (+25bps) June 2023 (+50bps) May, March 2023 (+25bps) February 2023 and December 2022 (+50bps) November 2022 (+75bps) August and September 2022 (+50bps) February, March, May, June 2022 (+25bps) December 2021 (+15bps)	The BoE has been engaged in active QT since November 2022. We anticipate passive QT would likely continue alongside rate cuts; however, we think active bond sales may be paused.	We expect the easing cycle to begin in May with a 0.25% rate cut, followed by further rate cuts in June, August, September, November and December. Expected rate at end-2024: 3.75%	Neutral
BoJ	Policy deposit rate: -0.10% Prior changes: Suspension of fixed-rate purchase operations. 1% upper bound of 10-year JGB yield is a 'reference' and removal of the -/+50bps tolerance band. Fixed-rate purchase operations: Increased from 0.5% to 1% 10-year JGB yield target: ~0%, with tolerance band of –/+50bps (YCC) January 2016, when the Bank introduced its negative interest rate policy (NIRP)	The BoJ increased JGB purchases sharply in 2023 to defend its YCC policy. We think a 'reference rate' for YCC may be retained in 2024, with modest JGB purchases enabling an orderly departure from a negative deposit rate.	We anticipate an exit from negative rates in April 2024 and think a move into positive policy rate territory this year is likely; however, fading inflationary pressures imply less hiking than we previously envisaged. Expected rate at end-2024: 0.25%	Neutral

Source: Goldman Sachs Asset Management. As of March 1, 2024. Abbreviations: Quantitative Easing (QE), Quantitative Tightening (QT), Yield Curve Control (YCC), Pandemic Emergency Purchase Program (PEPP), Asset Purchase Program (APP), Targeted Longer-Term Refinancing Operations (TLTROs), Japanese Government Bond (JGB). The economic and market forecasts presented herein are for informational purposes as of the date of this document. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this document.

SOVEREIGN BOND YIELDS (%)

	Latest	6 months ago	12 months ago
US 2 Year	4.6	4.9	4.8
US 10 Year	4.3	4.1	3.9
US 2-10 Slope	-0.4	-0.8	-0.9
US Treasury 10-Year Inflation-Protected	1.9	1.8	1.5
Germany 2 Year	3.0	3.0	3.1
Germany 10 Year	2.5	2.5	2.6
Japanese 10 Year	0.7	0.7	0.5
UK 10 Year	4.2	4.4	3.8
Chinese 10 Year	2.3	2.6	2.9

Source: Macrobond, Goldman Sachs Asset Management. As of 29 February 2024.

EXCHANGE RATES

	Latest	6 months ago	12 months ago
Euro (€ per $)	0.92	0.92	0.94
British Pound (£ per $)	0.79	0.79	0.83
Japanese Yen (¥ per $)	150.77	146.29	136.21
Chinese Yuan Renminbi (CNY per $)	7.20	7.29	6.93

Source: Macrobond, Goldman Sachs Asset Management. As of 29 February 2024.

FIXED INCOME SECTOR YIELDS (%)

	Latest	Last 10 year average	Last 10 year Percentile
US Investment Grade	5.5	3.5	91.8
European Investment Grade	4.3	1.4	89.5
UK Investment Grade	5.6	3.2	90.8
US High Yield	7.9	6.5	78.4
European High Yield	6.3	4.2	83.1
EM External	8.1	6.2	83.6
EM Corporate	6.6	5.3	83.0
US Agency MBS	5.1	2.8	96.4
US ABS	5.7	2.6	90.5
US Munis	3.5	2.3	89.5
US CMBS	4.9	2.6	94.7

Source: Macrobond, Goldman Sachs Asset Management, ICE BofAML and J.P. Morgan. As of 29 February 2024.

FIXED INCOME SECTOR SPREADS (BASIS POINTS)

	Latest	12 months ago	Last 10 Year Percentile
US Investment Grade	98	130	9.0
European Investment Grade	119	147	55.0
UK Investment Grade	119	168	12.6
US High Yield	331	422	7.1
European High Yield	344	421	28.3
EM External	368	447	56.0
EM Corporate	257	302	0.1
US Agency MBS	51	47	77.3
US ABS	99	119	66.8
US CMBS	46	50	21.1

Source: Macrobond, Goldman Sachs Asset Management, ICE BofAML and J.P. Morgan. As of 29 February 2024.

ADDITIONAL FIXED INCOME INSIGHTS

Musings

February 23, 2024

February 16, 2024

February 9, 2024

February 2, 2024

Navigating Fixed Income

Navigating Disinflation: The Case for EM Local Bonds

Navigating EM External Debt: Earning Carry, Finding Alpha

Navigating Investment Grade Credit with Goldman Sachs Asset Management

Navigating Opportunities in Investment Grade Credit

Navigating External EM Debt

Bear (Market) Necessities: The Case for Core Fixed Income

Fixed Income Outlook

Q1 2024 Outlook: Balancing Act

Q4 2023 Outlook: Turning Cautious

Q3 2023 Outlook: Resilience and Risk

Q2 2023 Outlook: Quality Control

Asset Management Insights

Asset Management Outlook 2024: Embracing New Realities

Asset Management Perspectives: Coming into Focus

- Introduction
- Forces of Change: Investing in a World of Cyclical and Structural Drivers
- Triple A to Triple Threat: US Debt Sustainability, Serviceability, and Geopolitical Risks
- Taking The High Road: Investing In A Higher-for-Longer Rate World
- Japan's Economic Revival and the Road Ahead

Risk Consideration

Investments in fixed income securities are subject to the risks associated with debt securities generally, including credit, liquidity, interest rate, prepayment and extension risk. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in the decline in the bond's price. The value of securities with variable and floating interest rates are generally less sensitive to interest rate changes than securities with fixed interest rates. Variable and floating rate securities may decline in value if interest rates do not move as expected. Conversely, variable and floating rate securities will not generally rise in value if market interest rates decline. Credit risk is the risk that an issuer will default on payments of interest and principal. Credit risk is higher when investing in high yield bonds, also known as junk bonds. Prepayment risk is the risk that the issuer of a security may pay off principal more quickly than originally anticipated. Extension risk is the risk that the issuer of a security may pay off principal more slowly than originally anticipated. All fixed income investments may be worth less than their original cost upon redemption or maturity.

The risk of foreign currency exchange rate fluctuations may cause the value of securities denominated in such foreign currency to decline in value. Currency exchange rates may fluctuate significantly over short periods of time. These risks may be more pronounced for investments in securities of issuers located in, or otherwise economically tied to, emerging countries. If applicable, investment techniques used to attempt to reduce the risk of currency movements (hedging), may not be effective. Hedging also involves additional risks associated with derivatives.

Emerging markets investments may be less liquid and are subject to greater risk than developed market investments as a result of, but not limited to, the following: inadequate regulations, volatile securities markets, adverse exchange rates, and social, political, military, regulatory, economic or environmental developments, or natural disasters.

When interest rates increase, fixed income securities will generally decline in value. Fluctuations in interest rates may also affect the yield and liquidity of fixed income securities.

International securities may be more volatile and less liquid and are subject to the risks of adverse economic or political developments. International securities are subject to greater risk of loss as a result of, but not limited to, the following: inadequate regulations, volatile securities markets, adverse exchange rates, and social, political, military, regulatory, economic or environmental developments, or natural disasters.

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

Mortgage-related and other asset-backed securities are subject to credit/default, interest rate and certain additional risks, including extension risk (i.e., in periods of rising interest rates, issuers may pay principal later than expected) and prepayment risk (i.e., in periods of declining interest rates, issuers may pay principal more quickly than expected, causing the strategy to reinvest proceeds at lower prevailing interest rates).

Disclosures

Views and opinions are current as of date of publication and may be subject to change, they should not be construed as investment advice.

Views and opinions expressed are for informational purposes only and do not constitute a recommendation by Goldman Sachs Asset Management to buy, sell, or hold any security.

Individual portfolio management teams for Goldman Sachs Asset Management may have views and opinions and/or make investment decisions that, in certain instances, may not always be consistent with the views and opinions expressed herein.

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

The website links provided are for your convenience only and are not an endorsement or recommendation by Goldman Sachs Asset Management of any of these websites or the products or services offered. Goldman Sachs Asset Management is not responsible for the accuracy and validity of the content of these websites.

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.

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 Goldman Sachs Asset Management 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 Goldman Sachs Asset Management has no obligation to provide any updates or changes.

Economic and market forecasts presented herein reflect a series of assumptions and judgments as of the date of this presentation and are subject to change without notice. These forecasts do not take into account the specific investment objectives, restrictions, tax and financial situation or other needs of any specific client. Actual data will vary and may not be reflected here. These forecasts are subject to high levels of uncertainty that may affect actual performance. Accordingly, these forecasts should be viewed as merely representative of a broad range of possible outcomes. These forecasts are estimated, based on assumptions, and are subject to significant revision and may change materially as economic and market conditions change. Goldman Sachs has no obligation to provide updates or changes to these forecasts. Case studies and examples are for illustrative purposes only.

Investments in fixed-income securities are subject to credit and interest rate risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in the decline in the bond's price.

THIS MATERIAL DOES NOT CONSTITUTE AN OFFER OR SOLICITATION IN ANY JURISDICTION WHERE OR TO ANY PERSON TO WHOM IT WOULD BE UNAUTHORIZED OR UNLAWFUL TO DO SO.

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.

Goldman Sachs does not provide legal, tax or accounting advice, unless explicitly agreed between you and Goldman Sachs (generally through certain services offered only to clients of Private Wealth Management). Any statement contained in this presentation concerning U.S. tax matters is not intended or written to be used and cannot be used for the purpose of avoiding penalties imposed on the relevant taxpayer. 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.

United Kingdom: In the United Kingdom, this material is a financial promotion and has been approved by Goldman Sachs Asset Management International, which is authorized and regulated in the United Kingdom by the Financial Conduct Authority.

European Economic Area (EEA): This material is a financial promotion disseminated by Goldman Sachs Bank Europe SE, including through its authorised branches ("GSBE"). GSBE is a credit institution incorporated in Germany and, within the Single Supervisory Mechanism established between those Member States of the European Union whose official currency is the Euro, subject to direct prudential supervision by the European

Central Bank and in other respects supervised by German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufischt, BaFin) and Deutsche Bundesbank.

Switzerland: For Qualified Investor use only – Not for distribution to general public. This is marketing material. This document is provided to you by Goldman Sachs Bank AG, Zürich. Any future contractual relationships will be entered into with affiliates of Goldman Sachs Bank AG, which are domiciled outside of Switzerland. We would like to remind you that foreign (Non-Swiss) legal and regulatory systems may not provide the same level of protection in relation to client confidentiality and data protection as offered to you by Swiss law.

Asia excluding Japan: Please note that neither Goldman Sachs Asset Management (Hong Kong) Limited ("GSAMHK") or Goldman Sachs Asset Management (Singapore) Pte. Ltd. (Company Number: 201329851H) ("GSAMS") nor any other entities involved in the Goldman Sachs Asset Management business that provide this material and information maintain any licenses, authorizations or registrations in Asia (other than Japan), except that it conducts businesses (subject to applicable local regulations) in and from the following jurisdictions: Hong Kong, Singapore, Malaysia, India and China. This material has been issued for use in or from Hong Kong by Goldman Sachs Asset Management (Hong Kong) Limited, in or from Singapore by Goldman Sachs Asset Management (Singapore) Pte. Ltd. (Company Number: 201329851H) and in or from Malaysia by Goldman Sachs (Malaysia) Sdn Berhad (880767W).

Australia: This material is distributed by Goldman Sachs Asset Management Australia Pty Ltd ABN 41 006 099 681, AFSL 228948 ('GSAMA') and is intended for viewing only by wholesale clients for the purposes of section 761G of the Corporations Act 2001 (Cth). This document may not be distributed to retail clients in Australia (as that term is defined in the Corporations Act 2001 (Cth)) or to the general public. This document may not be reproduced or distributed to any person without the prior consent of GSAMA. To the extent that this document contains any statement which may be considered to be financial product advice in Australia under the Corporations Act 2001 (Cth), that advice is intended to be given to the intended recipient of this document only, being a wholesale client for the purposes of the Corporations Act 2001 (Cth). Any advice provided in this document is provided by either of the following entities. They are exempt from the requirement to hold an Australian financial services licence under the Corporations Act of Australia and therefore do not hold any Australian Financial Services Licences, and are regulated under their respective laws applicable to their jurisdictions, which differ from Australian laws. Any financial services given to any person by these entities by distributing this document in Australia are provided to such persons pursuant to the respective ASIC Class Orders and ASIC Instrument mentioned below.

* Goldman Sachs Asset Management, LP (GSAMLP), Goldman Sachs & Co. LLC (GSCo), pursuant ASIC Class Order 03/1100; regulated by the US Securities and Exchange Commission under US laws.

* Goldman Sachs Asset Management International (GSAMI), Goldman Sachs International (GSI), pursuant to ASIC Class Order 03/1099; regulated by the Financial Conduct Authority; GSI is also authorized by the Prudential Regulation Authority, and both entities are under UK laws.

* Goldman Sachs Asset Management (Singapore) Pte. Ltd. (GSAMS), pursuant to ASIC Class Order 03/1102; regulated by the Monetary Authority of Singapore under Singaporean laws

* Goldman Sachs Asset Management (Hong Kong) Limited (GSAMHK), pursuant to ASIC Class Order 03/1103 and Goldman Sachs (Asia) LLC (GSALLC), pursuant to ASIC Instrument 04/0250; regulated by the Securities and Futures Commission of Hong Kong under Hong Kong laws

No offer to acquire any interest in a fund or a financial product is being made to you in this document. If the interests or financial products do become available in the future, the offer may be arranged by GSAMA in accordance with section 911A(2)(b) of the Corporations Act. GSAMA holds Australian Financial Services Licence No. 228948. Any offer will only be made in circumstances where disclosure is not required under Part 6D.2 of the Corporations Act or a product disclosure statement is not required to be given under Part 7.9 of the Corporations Act (as relevant).

Canada: This presentation has been communicated in Canada by Goldman Sachs Asset Management LP, which is registered as a portfolio manager under securities legislation in all provinces of Canada and as a commodity trading manager under the commodity futures legislation of Ontario and as a derivatives adviser under the derivatives legislation of Quebec. Goldman Sachs Asset Management LP is not registered to provide investment advisory or portfolio management services in respect of exchange-traded futures or options contracts in Manitoba and is not offering to provide such investment advisory or portfolio management services in Manitoba by delivery of this material.

Japan: This material has been issued or approved in Japan for the use of professional investors defined in Article 2 paragraph (31) of the Financial Instruments and Exchange Law by Goldman Sachs Asset Management Co., Ltd.

Cambodia: Please Note: The attached information has been provided at your request for informational purposes only and is not intended as a solicitation in respect of the purchase or sale of instruments or securities (including funds) or the provision of services. Neither Goldman Sachs Asset Management (Singapore) Pte. Ltd. nor any of its affiliates is licensed as a dealer or investment advisor under The Securities and Exchange Commission of Cambodia. The information has been provided to you solely for your own purposes and must not be copied or redistributed to any person without the prior consent of Goldman Sachs Asset Management.

Timor: Please Note: The attached information has been provided at your request for informational purposes only and is not intended as a solicitation in respect of the purchase or sale of instruments or securities (including funds), or the provision of services. Neither Goldman Sachs Asset Management (Singapore) Pte. Ltd. nor any of its affiliates is licensed under any laws or regulations of Timor-Leste. The information has been provided to you solely for your own purposes and must not be copied or redistributed to any person or institution without the prior consent of Goldman Sachs Asset Management.

Vietnam: Please Note: The attached information has been provided at your request for informational purposes only. The attached materials are not, and any authors who contribute to these materials are not, providing advice to any person. The attached materials are not and should not be construed as an offering of any securities or any services to any person. Neither Goldman Sachs Asset Management (Singapore) Pte. Ltd. nor any of its affiliates is licensed as a dealer under the laws of Vietnam. The information has been provided to you solely for your own purposes and must not be copied or redistributed to any person without the prior consent of Goldman Sachs Asset Management.

Brazil: These materials are provided at your request and solely for your information, and in no way constitutes an offer, solicitation, advertisement or advice of, or in relation to, any securities, funds, or products by any of Goldman Sachs affiliates in Brazil or in any jurisdiction in which such activity is unlawful or unauthorized, or to any person to whom it is unlawful or unauthorized. This document has not been delivered for registration to the relevant regulators or financial supervisory bodies in Brazil, such as the Brazilian Securities and Exchange Commission (Comissão de Valores Mobiliários – CVM) nor has its content been reviewed or approved by any such regulators or financial supervisory bodies. The securities, funds, or products described in this document have not been registered with the relevant regulators or financial supervisory bodies in Brazil, such as the CVM, nor have been submitted for approval by any such regulators or financial supervisory bodies. The recipient undertakes to keep these materials as well as the information contained herein as confidential and not to circulate them to any third party.

Colombia: This presentation does not have the purpose or the effect of initiating, directly or indirectly, the purchase of a product or the rendering of a service by Goldman Sachs Asset Management to Colombian residents. Goldman Sachs Asset Management's products and/or services may not be promoted or marketed in Colombia or to Colombian residents unless such promotion and marketing is made in compliance with Decree 2555 of 2010 and other applicable rules and regulations related to the promotion of foreign financial and/or securities-related products and/or services in Colombia or to Colombian residents.

Bahrain: FOR INTENDED AUDIENCES ONLY– NOT FOR WIDER DISTRIBUTION

This material has not been reviewed by the Central Bank of Bahrain (CBB) and the CBB takes no responsibility for the accuracy of the statements or the information contained herein, or for the performance of the securities or related investment, nor shall the CBB have any liability to any person for damage or loss resulting from reliance on any statement or information contained herein. This material will not be issued, passed to, or made available to the public generally.

Kuwait: FOR INTENDED AUDIENCES ONLY– NOT FOR WIDER DISTRIBUTION

The investments described in this document have not been and will not be registered, authorised, licensed or approved for offering, marketing or sale in the State of Kuwait pursuant to Law No. 31 of 1990 and Law No. 7 of 2010 nor by the Central Bank of Kuwait or any other relevant Kuwaiti government agency and shall not be offered or sold in the State of Kuwait, except in compliance with the above. No private or public offering is being made in the State of Kuwait, and no agreement relating to the sale of such investments will be concluded in the State of Kuwait. No marketing or solicitation or inducement activities are being used to offer or market such investments in the State of Kuwait.

Oman: FOR INTENDED AUDIENCES ONLY– NOT FOR WIDER DISTRIBUTION

The Capital Market Authority of the Sultanate of Oman (the "CMA") is not liable for the correctness or adequacy of information provided in this document or for identifying whether or not the services contemplated within this document are appropriate investment for a potential investor. The CMA shall also not be liable for any damage or loss resulting from reliance placed on the document.

Qatar: FOR INTENDED AUDIENCES ONLY– NOT FOR WIDER DISTRIBUTION

This document has not been, and will not be, registered with or reviewed or approved by the Qatar Financial Markets Authority, the Qatar Financial Centre Regulatory Authority or Qatar Central Bank and may not be publicly distributed. It is not for general circulation in the State of Qatar and may not be reproduced or used for any other purpose.

Saudi Arabia: FOR INTENDED AUDIENCES ONLY– NOT FOR WIDER DISTRIBUTION

The Capital Market Authority does not make any representation as to the accuracy or completeness of this document, and expressly disclaims any liability whatsoever for any loss arising from, or incurred in reliance upon, any part of this document. If you do not understand the contents of this document you should consult an authorised financial adviser.

FOR INTENDED AUDIENCES ONLY– NOT FOR WIDER DISTRIBUTION

These materials are presented to you by Goldman Sachs Saudi Arabia Company ("GSSA"). GSSA is authorised and regulated by the Capital Market Authority ("CMA") in the Kingdom of Saudi Arabia. GSSA is subject to relevant CMA rules and guidance, details of which can be found on the CMA's website at www.cma.org.sa.

The CMA does not make any representation as to the accuracy or completeness of these materials, and expressly disclaims any liability whatsoever for any loss arising from, or incurred in reliance upon, any part of these materials. If you do not understand the contents of these materials, you should consult an authorised financial adviser.

United Arab Emirates: FOR INTENDED AUDIENCES ONLY– NOT FOR WIDER DISTRIBUTION

This document has not been approved by, or filed with the Central Bank of the United Arab Emirates or the Securities and Commodities Authority. If you do not understand the contents of this document, you should consult with a financial advisor.

South Africa: Goldman Sachs Asset Management International is authorised by the Financial Services Board of South Africa as a financial services provider.

By receiving this presentation, and in case any contact is made with Goldman Sachs Asset Management, each recipient resident in Colombia acknowledges and agrees that it has contacted Goldman Sachs Asset Management at its own initiative and not as a result of any promotion or publicity by Goldman Sachs Asset Management or any of their respective agents or representatives. Colombian residents acknowledge that (1) the receipt of this presentation does not constitute a solicitation from Goldman Sachs Asset Management for its products and/or services, and (2) they are not receiving from Goldman Sachs Asset Management any direct or indirect promotion or marketing of financial and/or securities-related products and/or services.

This presentation is strictly private and confidential and may not be reproduced or used for any purpose other than evaluation of a potential investment in Goldman Sachs Asset Management's products or the procurement of its services by the recipient of this this presentation or provided to any person or entity other than the recipient of this this presentation.

Esta presentación no tiene el propósito o el efecto de iniciar, directa o indirectamente, la adquisición de un producto a prestación de un servicio por parte de Goldman Sachs Asset Management a residentes colombianos. servicios financieros y /o del mercado de valores en Colombia o a residentes colombianos.

Los productos y/o servicios de Goldman Sachs Asset Management no podrán ser ofrecidos ni promocionados en Colombia o a residentes Colombianos a menos que dicha oferta y promoción se lleve a cabo en cumplimiento del Decreto 2555 de 2010 y las otras reglas y regulaciones aplicables en materia de promoción de productos y/o .Al recibir esta presentación, y en caso que se decida contactar a Goldman Sachs Asset Management, cada destinatario residente en Colombia reconoce y acepta que ha contactado a Goldman Sachs Asset Management por su propia iniciativa y no como resultado de cualquier promoción o publicidad por parte de Goldman Sachs Asset Management o cualquiera de sus agentes o representantes. Los residentes colombianos reconocen que (1) la recepción de esta presentación no constituye una solicitud de los productos y/o servicios de Goldman Sachs Asset Management, y (2) que no están recibiendo ninguna oferta o promoción directa o indirecta de productos y/o servicios financieros y/o del mercado de valores por parte de Goldman Sachs Asset Management.

Esta presentación es estrictamente privada y confidencial, y no podrá ser reproducida o utilizada para cualquier propósito diferente a la evaluación de una inversión potencial en los productos de Goldman Sachs Asset Management o la contratación de sus servicios por parte del destinatario de esta presentación, no podrá ser proporcionada a una persona diferente del destinatario de esta presentación.

The opinions expressed in this research paper are those of the authors, and not necessarily of Goldman Sachs Asset Management. The investments and returns discussed in this paper do not represent any Goldman Sachs product.

This research paper makes no implied or express recommendations concerning how a client's account should be managed. This research paper is not intended to be used as a general guide to investing or as a source of any specific investment recommendations.

This report is produced and distributed by the Global Investment Research Division of Goldman Sachs and is not a product of Goldman Sachs Asset Management. The views and opinions expressed may differ from those of Goldman Sachs Asset Management or other departments or divisions of Goldman Sachs and its affiliates. This research is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any advice or recommendation in this research is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. This information may not be current and Goldman Sachs Global Investment Research has no obligation to provide any updates or change.

Index Benchmarks

Indices are unmanaged. The figures for the index reflect the reinvestment of all income or dividends, as applicable, but do not reflect the deduction of any fees or expenses which would reduce returns. Investors cannot invest directly in indices.

The indices referenced herein have been selected because they are well known, easily recognized by investors, and reflect those indices that the Investment Manager believes, in part based on industry practice, provide a suitable benchmark against which to evaluate the investment or broader market described herein. The exclusion of "failed" or closed hedge funds may mean that each index overstates the performance of hedge funds generally.

Sector Spread Indexes

US Investment Grade Corporates: ICE BofAML US Corporate Index

US High Yield Corporates: ICE BofAML US Corporate High Yield Index

European Investment Grade Corporates: ICE BofAML Euro Corporate Index

European High Yield Corporates: ICE BofAML Euro High Yield Index

ABS: ICE BofAML US Fixed Rate Asset-Backed Securities Index

MBS: ICE BofAML US Agency Mortgage-Backed Securities Index

CMBS: ICE BofAML US Fixed Rate Commercial Mortgage-Backed Securities Index

EM External Debt: J.P. Morgan, EMBI Global Diversified Face Constrained Index

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.

Abbreviations: US Federal Reserve (Fed), European Central Bank (ECB), Bank of England (BoE), Bank of Japan (BoJ), Swiss National Bank (SNB), Central Bank of Sweden (Riksbank), Reserve Bank of New Zealand (RBNZ), Central Bank of Norway (Norges Bank) Bank of Canada (BoC), Reserve Bank of Australia (RBA), Quantitative Easing (QE), Quantitative Tightening (QT), Pandemic Emergency Purchase Program (PEPP), Consumer price index (CPI), producer price index (PPI), developed markets (DM), emerging markets (EM), Japanese Government Bond (JGB). Mortgage-backed securities (MBS), Asset-backed securities (ABS).

Jurisdiction compliance code: 330569-TMPL-08/2023-1852222.
Compliance Code: 359713-OTU-1980192