

MARKET PULSE

MACRO VIEWS

EX-US GROWTH: We still believe Euro area growth will be weak in 2023 at 0.8%, but we no longer expect a recession, given 1) resilient activity data, 2) a warm winter weighing on natural gas prices, and 3) China's faster-than-expected reopening. Relatedly, we now expect 2023 China growth at 6.5% (vs. 5.5% previously) as consumption strongly rebounds and mobility data indicate potential for a fast post-exit wave recovery.

US GROWTH: Feel is not always real. Soft data, such as indicators of business and consumer confidence, may reflect broad pessimism, but hard data, such as labor and industrial statistics, remain resilient and inform GIR's forecast for 1.5% US GDP growth this year. With \$1.6tn of excess savings, we believe consumption activity can sustain at current levels, barring a surge in the US unemployment rate to 5%.

LABOR: US job listings and surveys both suggest falling labor demand, pairing with a participation rate recovery to pre-pandemic trend (after accounting for demographic exits). Still, progress is needed: the jobsworkers gap is at 5.3mn, above the 2mn level we estimate is necessary to ease wage pressures. In Europe, UK wage growth remains high at 7%, driven by labor market tightness and inflation expectations. Euro area wage growth is also elevated but stands lower than in the US and UK.

DEBT CEILING: While we do not expect the US to default on its debt, a lengthy resolution process may invite heightened market volatility. Timing of the process remains uncertain as political brinkmanship and unknowns surround potential Treasury contingency plans may further elongate the negotiation process.

MARKET VIEWS

US EARNINGS: Corporate earnings in 4Q reflect a new market environment, with corporate decision makers and investors closely scrutinizing capital allocation and performance. So far, we have seen 47% of corporates beat consensus expectations to date, relative to the long-run average of 48%. In 2023, our colleagues in GIR expect zero S&P 500 EPS growth at \$224.

US RATES: US Treasury yields have settled below their highs of 2022 as evidence of growth deceleration has mounted. Still, we believe a higher-for-longer yield environment is likely to drive attractive total returns long-term, especially for those adding duration from previous underweights.

DM CREDIT: We lowered our spread forecasts in both the US and Euro area from already low levels. The ECB's balance sheet withdrawal of €15 bn/month from March through June, a relatively hawkish surprise, may impact sovereigns more than IG. Additionally, we believe a decline in net issuance will keep technicals in balance, allowing for our favorable view on Euro area IG.

MUNIS: Muni technicals may turn from a headwind to a tailwind, in our view, even as new issuance ticks up from low levels. Demand may come back as the Fed nears the end of its hiking cycle, which we believe will disproportionately benefit mutual funds given the level of withdrawals in the past year. We continue to monitor spillover impacts of any federal fiscal policy changes to state and local governments, though take comfort in the elevated rainy day fund levels, albeit with state-specific dispersion.

Le	ss Favorable	More Favorable
EQUITY	Shorter Term	Longer Term
US Equity		
European Equity		
Japanese Equity		
Emerging Market (EM) Equity		
RATES		
US Government Fixed Income		
DM Government Fixed Income		
EM Debt Local		
Municipal Bonds		
CREDIT		
US Investment Grade		
US High Yield		
Euro Area Corporates		
Asia High Yield		
EM Debt Hard		
REAL ASSETS		
Oil		
Copper		
Gold		
Global Real Estate		
CURRENCIES		
US Dollar		
Euro		
British Pound		
Japanese Yen		
Chinese Renminbi		

ASSET CLASS FORECASTS²

	Current	3m	12m	% Δ to 12m
S&P 500 (\$)	4136	4000	4000	(3.3)
STOXX Europe (€)	461	420	465	0.9
MSCI Asia-Pacific Ex-Japan (\$)	554	580	620	12.0
TOPIX (¥)	1970	2000	2200	11.7
10-Year Treasury	3.5	3.8	4.2	63 bp
10-Year Bund	2.2	2.8	2.7	50 bp
10-Year JGB	0.5	0.6	0.9	40 bp
Euro (€/\$)	1.08	1.02	1.10	1.6
Pound (£/\$)	1.21	1.15	1.22	1.2
Yen (\$/¥)	131	132	125	(4.6)
Brent Crude Oil (\$/bbl)	79.9	95	105	31.3
London Gold (\$/troy oz)	1870	1850	1950	4.3

Source: Goldman Sachs Global Investment Research (GIR) and Goldman Sachs Asset Management as of February 2023. "US GDP growth" refers to US real gross domestic product growth, year-on-year. 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. **Past performance does not guarantee future results, which may vary.**

Warming Up to Europe

Policy and geopolitical risks will likely continue to inform global growth. However, we are beginning to see green shoots in Europe. Our appetite to rotate back to strategic weights for ex-US equities has improved, as 1) lower energy prices have reduced recessionary concerns, 2) earlier and swifter China reopening spells trade upside, and 3) a turn in US dollar strength may enhance total returns. While the path is non-linear, a cyclical pick-up may invite ex-US equities back into portfolio conversations.

2022

ENERGY GREEN SHOOTS Dutch TTF Natural Gas Price (EUR/MWh) 300 250 200 150 100 Current: 55.5 EUR/MWh 50 0

2021

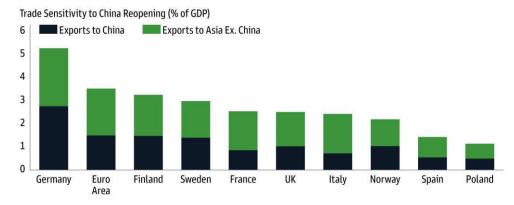
Positive surprises from activity data, warmer weather, and full energy storage has led European natural gas prices to fall back to September 2021 levels. In our view, this trend has significantly reduced Euro area recession risk as inflationary pressures and demand destruction subsides alongside energy prices. Looking ahead, we see the Euro area growth trajectory to be better positioned for recovery.

Source: Bloomberg and Goldman Sachs Asset Management.

2023

CHINA BRIGHT SPOTS

2020



Earlier China reopening has also reinforced our favorable macro expectations for Europe. Every 1% boost to Chinese activity may lift Euro area real GDP by 0.2%, with the greatest upside felt in industrial economies. At the company level. Asia-Pacific demand accounts for 21% of STOXX 600 revenues. We believe equity opportunities may finally shift globally with a cyclical rotation soon underway.

Source: Goldman Sachs Global Investment Research and Goldman Sachs Asset Management.

Currency tailwinds may present the final powerful force in amplifying returns on

non-US exposures. We believe sustaining

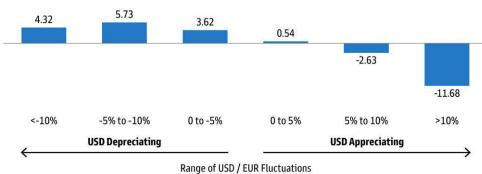
view, investors with international holdings may improve equity gains as the US

US dollar weakness hinges on two factors—easing inflation and resilient

global growth-both are reasonable expectations for later this year. In our

FX TAILWINDS





dollar retreats toward its fair value. Source: Bloomberg, MSCI, and Goldman

Sachs Asset Management.

Top Section Notes: As of January 27, 2023. Middle Section Notes: As of January 31, 2023. Chart shows the trade exposure of select European countries to China and Asia excluding China. Data is measured as percent of a country's GDP. Bottom Section Notes: As of January 24, 2023. Chart shows average total returns for MSCI EAFE Index over different movements in the USD / EUR currency pair going back to 1995. "USD" refers to the US dollar. "EUR" refers to the euro. Returns reflect daily data over rolling three-month periods. Goldman Sachs does not provide accounting, tax or legal advice. Please see additional disclosures at the end of this document. 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. Past performance does not guarantee future results, which may vary.

Important Information

- 1. Asset Class Outlook for equities, credits, sovereigns, real assets, and currencies are informed by Goldman Sachs Asset Management, Goldman Sachs Global Investment Research, and Goldman Sachs Investment Strategy Group views. The views expressed herein are as of January 2023 and subject to change in the future. "Shorter Term" view refers to less than 6 months. "Longer Term" view refers to 1–5 years. 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.
- Price targets of major asset classes are provided by Goldman Sachs Global Investment Research. Source: "Global equities gained 1%, Growth outperformed Value" – 02/06/2023.

Page 1 Definitions:

Brent crude oil is a common international benchmark for oil prices.

Bbl refers to per barrel.

Bp refers to basis points.

Debt ceiling refers to the maximum amount of money that the United States can borrow cumulatively through bond issuance.

DM refers to developed markets.

GDP refers to Gross Domestic Product.

ECB refers to European Central Bank.

EM refers to emerging markets.

EPS refers to earnings per share.

Fed refers to the Federal Reserve.

IG refers to investment grade.

Jobs-workers gap refers to the difference between the total number of jobs (employment and job openings) and the number of workers in the labor force.

Post-exit wave refers to the period following a local peak in COVID-19 cases

Pp refers to percentage point.

YE refers to year end.

Page 2 Definitions:

Top Section: Dutch TTF (Title Transfer Facility) Natural Gas Price refers to the futures prices for the most liquid and primary gas pricing location in the Netherlands. It reflects a key benchmark for overall European LNG import market.

Glossary

The Bloomberg US Aggregate Bond Index represents an unmanaged diversified portfolio of fixed income securities, including US Treasuries, investment grade corporate bonds, and mortgage backed and asset-backed securities.

The Dow Jones Equal Weight US Issued Corporate Bond Index is designed to track the total returns of 100 large and liquid investment-grade bonds issued by companies in the US corporate bond market.

The MSCI AC Asia Pacific ex Japan Index captures large and mid cap representation across 4 of 5 Developed Markets countries and 8 Emerging Markets countries in the Asia Pacific region.

The MSCI EAFE Index is designed to represent the performance of large and mid-cap securities across 21 developed markets, including countries in Europe, Australasia and the Far East, excluding the U.S. and Canada. The Index represents approximately 85% of the free float-adjusted market capitalization in each of the 21 countries.

The MSCI Emerging Markets Equity Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets.

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 STOXX Europe 600 Index is derived from the STOXX Europe Total Market Index (TMI) and is a subset of the STOXX Global 1800 Index.

The Tokyo Price Index (TOPIX) is a metric for stock prices on the Tokyo Stock Exchange (TSE). A capitalization-weighted index, TOPIX lists all firms that have been determined to be part of the "first section" of the TSE

The 10-Year US Treasury Bond is a US Treasury debt obligation that has a maturity of 10 years.

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

Risk Considerations

Equity securities are more volatile than bonds and subject to greater risks. Foreign and emerging markets investments may be more volatile and less liquid than investments in US securities and are subject to the risks of currency fluctuations and adverse economic or political developments. Investments in commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates or factors affecting a particular industry or commodity. The currency market affords investors a substantial degree of leverage. This leverage presents the potential for substantial profits but also entails a high degree of risk including the risk that losses may be similarly substantial. Currency fluctuations will also affect the value of an investment.

Investments in fixed income securities are subject to the risks associated with debt securities generally, including credit, liquidity, interest rate, call and extension risk.

Income from municipal securities is generally free from federal taxes and state taxes for residents of the issuing state. While the interest income is tax-free, capital gains, if any, will be subject to taxes. Income for some investors may be subject to the federal Alternative Minimum Tax (AMT).

High yield fixed income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment grade fixed income securities.

A 10-Year Treasury is a debt obligation backed by the United States government and its interest payments are exempt from state and local taxes. However, interest payments are not exempt from federal taxes.

Gold is a specialized, concentrated asset that comes with unique risks. All investing is subject to risk, including the possible loss of the money you invest. Investments that concentrate on a relatively narrow market sector face the risk of higher share-price volatility.

MARKET PULSE: FEBRUARY 2023

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