MARKET PULSE

MACRO VIEWS

US BANKING: Market pricing has run ahead of economic risks for US regional banks. Conservative and tighter lending standards are underway, but early US growth damage appears digestible (0.4pp drag on YoY basis) and concentrated in CRE and manufacturing. Increased regulatory capital, funding costs, and bank consolidation reflect key risks.

US LABOR: US wage growth has stayed above trend at 4.5%, indicating that a further decline in job openings is required to dampen inflation. Still, we believe official measures have likely overstated labor demand given a smaller sample and lower response rate than usual. GIR's estimate from alternative data shows a jobs-workers gap of 3.2mn, two-thirds lower from the peak, while the layoff rate remained near pre-pandemic level.

INFLATION: Alongside controlled US inflation expectations, we expect declining prices for health insurance, new rentals, and supply-constrained goods to drive US core PCE down to 3.4% by YE. Meanwhile, optimistic growth and persistent price pressures have presented a double-edged sword for Europe, in our view. Lower gas prices have somewhat faded headline inflation, but we believe wages and services inflation are risks.

MONETARY POLICY: Absent a material macro deterioration, we believe the Federal Reserve has reached sufficiently tight financial conditions and will keep the policy rate at 5.00%-5.25% in June. The futures market anticipates rate cuts, though bear outliers have likely skewed the mean lower than the mode. Meanwhile, a policy tightening bias remains for the ECB and BoE given slower improvements in wage and shelter inflation.

MARKET VIEWS

MEGA-CAP EQUITIES: MAGMA has outperformed the S&P 500 by 26pp YTD. We believe mega-cap companies can continue to outperform if growth remains far enough below potential to keep rates near their current levels. However, we believe they walk a narrow path: if growth re-accelerates (causing rates to rise) or a recession occurs (causing reductions in equity exposure), mega-cap tech names may find themselves vulnerable again.

US PROFIT MARGINS: The worst margin declines are likely behind us now that price hikes have caught up with wage growth, in our view. Going forward, resilient revenues, slowing input cost inflation, and a weaker US dollar should help margins stabilize. In our view, meaningful margin expansion remains unlikely. Wage growth will likely remain elevated in the near term, and interest and effective tax rates are likely to inch higher, all of which inform our expectation for flat earnings growth in 2023.

IG CREDIT: We remain neutral on global IG credit. Yields are attractive, corporate liquidity buffers appear resilient, and spreads historically tighten after hiking cycles with no recession. However, the potential yield pick-up on US IG credit over cash is essentially zero now, undercutting demand.

MUNIS: We find that optimal municipal bond portfolios seeking maximum frequency of strong returns, minimum frequency of negative returns, or just maximum Sharpe ratio all may merit significant high yield weights. As a bonus, HY muni has historically defaulted less frequently than HY credit.

GOLD: Uncertainty is a key driver of gold performance. However, as banking sector concerns subside, we believe it may be difficult for gold to sustainably appreciate without rate cuts, which we do not expect in 2023.

ASSET CLASS OUTLOOK[1]

Less Favorable | More Favorable

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

ASSET CLASS FORECASTS[2]

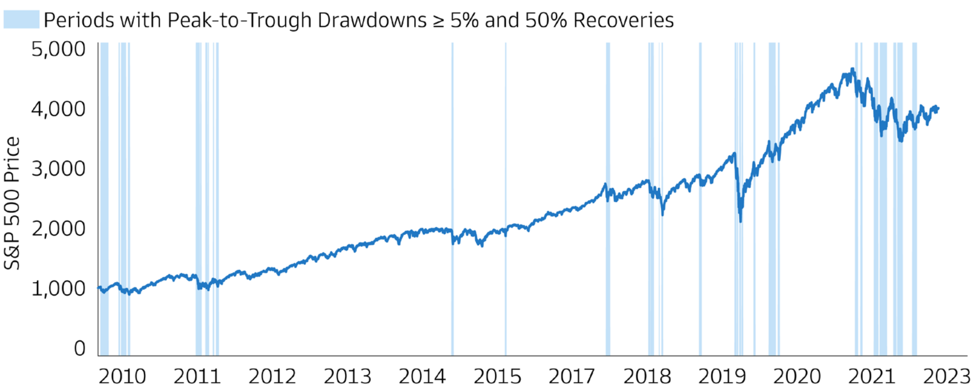
	Current	3m	12m	% Δ to 12m
S&P 500 ($)	4192	4000	4000	-4.6
STOXX Europe (€)	469	465	475	1.3
MSCI Asia-Pacific Ex-Japan ($)	513	530	600	16.9
TOPIX (¥)	2162	2000	2200	1.8
10-Year Treasury	3.7	3.9	3.8	12 bp
10-Year Bund	2.4	2.8	2.5	12 bp
10-Year JGB	0.4	0.6	0.7	32 bp
Euro (€/$)	1.08	1.05	1.10	1.7
Pound (£/$)	1.25	1.22	1.26	1.5
Yen ($/¥)	138	140	125	-9.2
Brent Crude Oil ($/bbl)	75.6	89	100	32.3
London Gold ($/troy oz)	1967	2050	2050	4.2

Source: GS Global Investment Research (GIR) and GS Asset Management. As of May 2023. 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. The portfolio risk management process includes an effort to monitor and manage risk but does not imply low risk. Goldman Sachs does not provide accounting, tax, or legal advice. Please see additional disclosures at the end of this document. **Past performance does not guarantee future results, which may vary.**

Good, Better, Best

Tax-loss harvesting can meaningfully increase bottom-line savings, though there are more ways than one to peel the orange. With volatility ever-changing in equity markets, we believe the most optimal loss-harvesting strategies are the nimblest, capitalizing on price swings as they arise. Selling losers to fund new positions on an annual basis may be good. Doing so monthly may be better. But in our view, tax-loss harvesting within the month, when pricing dislocations present themselves, is best.

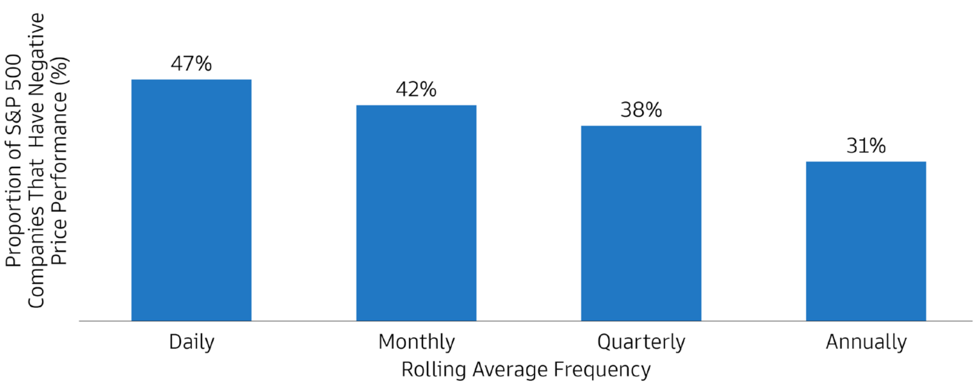
SHORT AND SWEET



Equity selloffs may be painful, but they tend to be short-lived, with historical market drawdowns of 5%+ occurring in just five days, on median. Subsequent recoveries have been swift as well, with half of those losses being recouped in six days, on median. We believe that index-level drawdowns and rebounds taking place well within a 30-day window highlight the importance of a tax-advantaged SMA that can sell and replace securities intra-month.

Source: Bloomberg and Goldman Sachs Asset Management.

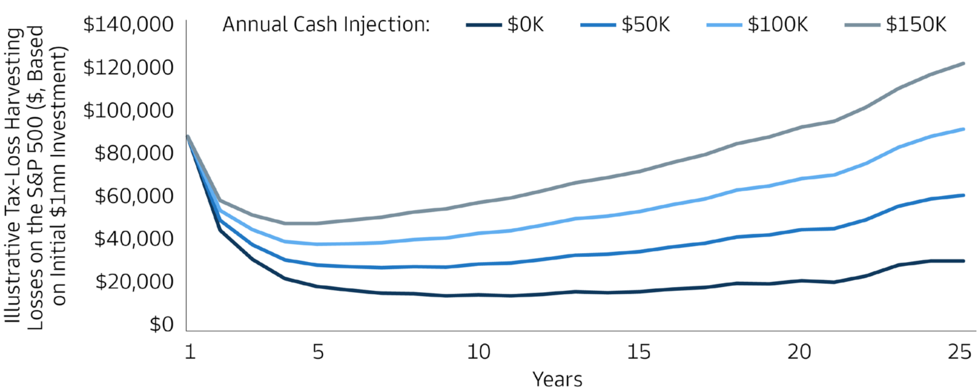
THE MORE FREQUENT THE MERRIER



Investors may not capitalize on single stock volatility as often as they should, with those who tax-loss harvest only once a year missing out on greater opportunity to generate losses. Only 31% of S&P 500 stock prices, on average, have ended a year negative, while nearly half have closed a single trading day in the red. We believe tax-advantaged SMAs that can tax-loss harvest as frequently as losses arise provide more robust opportunity for tax alpha.

Source: Bloomberg and Goldman Sachs Asset Management.

GIFT THAT KEEPS ON GIVING



Equity prices naturally trending higher than cost bases over time may appear as a risk to the viability of tax-advantaged SMAs in the long run, but we believe that concern is easily addressed. Small annual contributions, relative to the initial lump sum, can potentially extend loss-harvesting opportunities. Just $50k in additional capital contributions (or 5% of a $1mn initial investment) each year may double the losses realized after 25 years, keeping the tax savings flowing.

Source: Goldman Sachs Asset Management.

Top Section Notes: As of May 15, 2023. Light blue shading denotes consecutive peak-to-trough S&P 500 drawdowns of 5% or greater and subsequent 50% recoveries. Chart shows drawdown periods that were immediately followed by recoveries. The economic and market forecasts presented herein have been generated by Goldman Sachs Asset Management for informational purposes as of the date of this document. They are based on proprietary models and there can be no assurance that the forecasts will be achieved. These examples are for illustrative purposes only and are not actual results. If any assumptions used do not prove to be true, results may vary substantially. There is no guarantee that objectives will be met. Please see additional disclosures at the end of this document. **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 May 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.
2. Price targets of major asset classes are provided by Goldman Sachs Global Investment Research. Source: “Global equities gained 1%; Tech outperformed” – 05/22/2023.

Page 1 Definitions

Pp refers to percentage points.

YoY refers to year-over-year.

CRE refers to commercial real estate.

Mn refers to million.

Core PCE refers to the personal consumption index excluding food and energy prices.

YE refers to year-end.

Mean refers to the average of a set of numbers.

Mode refers to the most frequent number in a set.

ECB refers to the European Central Bank.

BoE refers to the Bank of England.

MAGMA refers to Microsoft, Apple, Google, Meta, and Amazon.

YTD refers to year-to-date.

IG refers to investment grade.

Sharpe ratio refers to a measure of risk-adjusted performance.

HY refers to high yield.

Page 2 Definitions

Top Section Notes: Tax-loss harvesting refers to the act of taking losses on investments that have declined in value in order to offset capital gains taxes. Volatility refers to a measure of variation of an asset’s price relative to the mean over a given period. A peak-to-trough drawdown, or just drawdown, is an index’s cumulative percentage decline in value. Median refers to the midpoint of a set of numbers. Tax-advantaged SMA refers to a separately managed account that seeks to replicate an existing index through direct investment in underlying securities and utilizes tax-loss harvesting techniques.

Middle Section Notes: Tax alpha refers to maximizing after-tax returns. Chart as of December 31, 2022. Chart shows the proportion of S&P 500 companies that have negative price performance over different rolling average frequencies, based on data from 2013-2022.

Bottom Section Notes: Chart as of May 24, 2023. Chart simulates illustrative yearly realized losses based on different annual capital contributions assumptions in a tax-loss harvesting strategy. Analysis assumes an initial investment of $1mn, a dividend yield of 2%, annual market return of 8%, annualized volatility of 16%, and an effective federal cap gains rate of 32.3%.

Glossary

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 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.

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.

General Disclosures

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.

Neither MSCI nor any other party involved in or related to compiling, computing, or creating the MSCI data makes any express or implied warranties or representations with respect to such data (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability, or fitness for a particular purpose with respect to any of such data. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in or related to compiling, computing or creating the data have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages. No further distribution or dissemination of the MSCI data is permitted without MSCI's express written consent.

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, including any Goldman Sachs product or service. Views and opinions are current as of the date of this document and may be subject to change, they should not be construed as investment advice.

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

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.

Economic and market forecasts presented herein reflect a series of assumptions and judgments as of the date of this document 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.

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 document concerning US 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.

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.

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.

Compliance code: 320340-OTU-1809092
Date of First Use: May 24, 2023

For more information contact your Goldman Sachs sales representative:

ICG: 800-312-GSAM Bank: 888-444-1151 Retirement: 800-559-9778

IAC: 866-473-8637 Global Liquidity Management: 800-621-2550

VA: 212-902-8157

MPJUN2023