MARKET PULSE

MACRO VIEWS

GROWTH: We expect COVID-19 risks to drag on growth in Q1 before a global rebound in Q2, although the trajectory of the recovery may vary across markets. In the US, we expect full-year growth to decelerate to a still solid 3.2%, while in the Euro area, continued recovery momentum, fiscal support, and easing bottlenecks will bring growth to 4.1%. In Asia, we expect decelerating but above-trend growth across several markets.

CHINA: The spread of the Omicron variant amid China's zero-COVID policy may continue to weigh on consumption recovery, although local supply chain disruptions will likely remain manageable. Expectations of further policy easing and more moderate restrictions should improve property sector conditions and consumer demand, driving a return to robust growth in Q2 and Q3 at 8% and 6.5% QoQ ann., respectively.

INFLATION: While global supply chains remain constrained, our base case is for sustained supply chain relief beginning mid-2022 on the back of greater labor, equipment, and demand normalization. In the US, we expect easing congestion and Federal Reserve response to price pressures to bring core PCE to 2.9% by year-end 2022.

MONETARY POLICY: A combination of higher inflation and a tighter labor market has led to a more hawkish Federal Reserve, raising our forecast to five rate hikes this year and for balance sheet run-off to be announced in June. The pace of monetary policy normalization remains divergent across major central banks, with the BoE conducting its second rate hike in February while the ECB may hold for a few more quarters.

MARKET VIEWS

EQUITIES: Despite the recent acute volatility in US equities that was accelerated by technical factors, we continue to see a year-end S&P 500 target of 5100. Rapid rate normalization may weigh on long-duration equities and further the near-term rotation from growth to value. We see additional alpha and diversification benefits from non-US equities, which are supported by more recovery upside, higher earnings sensitivity to global growth, and greater cyclical exposure.

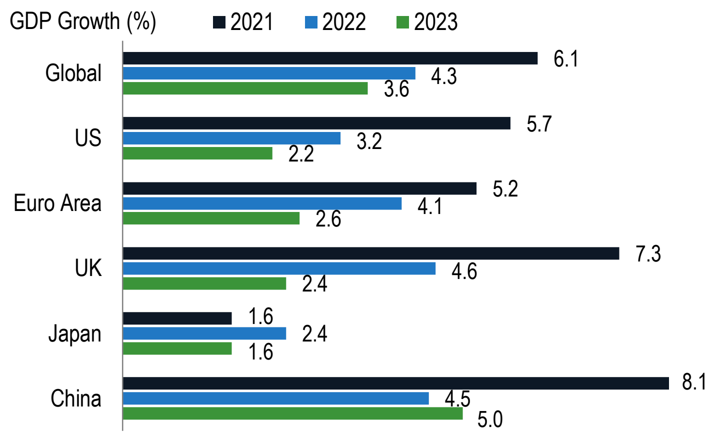
RATES: Although yields are likely to trend higher and curves flatter to reflect cyclical impulses and monetary policy normalization, more attractive income may begin to outweigh pressure from duration.

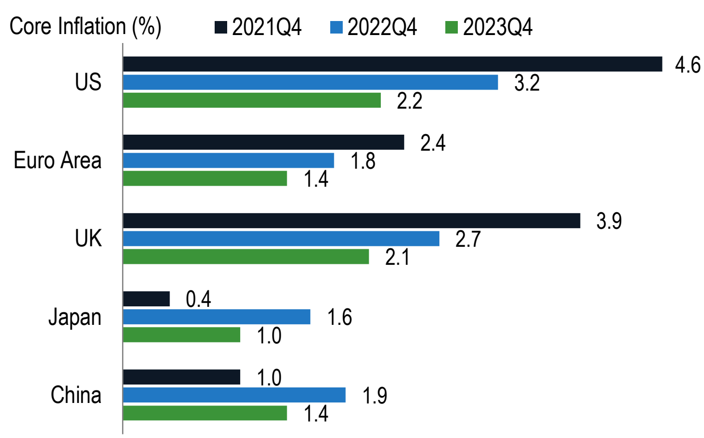
CREDIT: Corporate bond spreads have remained stable to start the year, withstanding the volatile backdrop. We expect the stability to persist, even against our expectation for modest widening in 2022. Across the credit complex, we think leveraged loans are attractive from a policy, yield, and duration perspective, though increased supply may be a headwind.

EMD: EMD Local started the year on the right foot outperforming its hard-currency counterpart and its DM peers. Signs of moderating inflation and improving economic conditions in the EM space, especially in LatAm countries, will be key for this outperformance to continue.

COMMODITIES: We expect above-trend growth rates, supply constraints, and environmental stakes to boost commodities. Copper may benefit from climate transition-propelled demand, while those same goals have contributed to underinvestment and undersupply in oil. WTI and Brent crude prices may each surpass $100/bbl in the next year.

ECONOMIC FORECASTS[1]





ASSET CLASS FORECASTS[2]

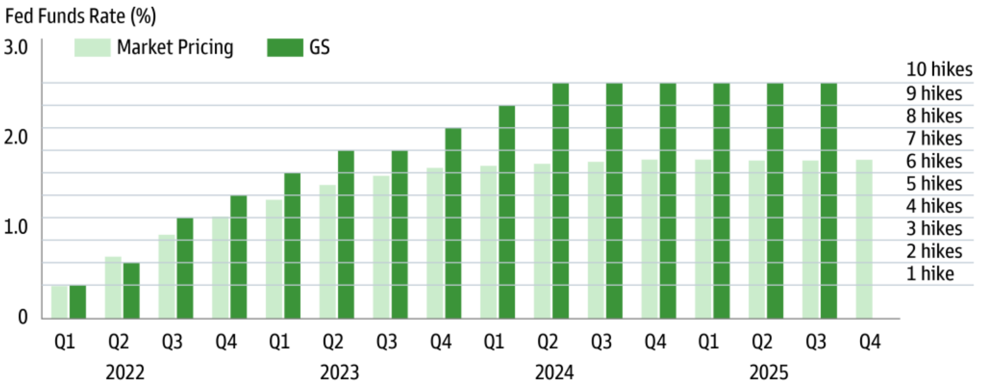
	Current	3m	12m	% Δ to 12m
S&P 500 ($)	4501	4850	5100	13.3
STOXX Europe (€)	462	495	530	14.7
MSCI Asia-Pacific Ex-Japan ($)	615	655	720	17.0
TOPIX (¥)	1931	2180	2250	16.5
10-Year Treasury	1.9	1.8	2.0	11 bp
10-Year Bund	0.2	0.3	0.5	34 bp
10-Year JGB	0.2	0.1	0.2	0 bp
Euro (€/$)	1.15	1.15	1.15	0.4
Pound (£/$)	1.35	1.39	1.35	(0.3)
Yen ($/¥)	115	117	115	(0.2)
Brent Crude Oil ($/bbl)	93.3	93.0	105.0	12.6
London Gold ($/troy oz)	1804	1950	2150	19.2

Source: Goldman Sachs Global Investment Research and Goldman Sachs Asset Management as of January 2022. 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. Goldman Sachs does not provide accounting, tax or legal advice. Diversification does not protect an investor from market risk and does not ensure a profit. Please see additional disclosures at the end of this presentation. Past performance does not guarantee future results, which may vary.

Tightening Times

Markets are pricing a 25bp March liftoff for the federal funds rate, which we think would represent the first of five hikes in 2022. US Treasury yields have jumped in anticipation of the upcoming hiking cycle, and equity market volatility has followed as expectations have repriced. We think investors should brace for continued volatility in the transition, but we ultimately remain constructive on risk assets in the ongoing recovery. Equities have historically been supported in strong growth, higher rate environments, and we think they still offer a compelling risk-return tradeoff compared to bonds and cash.

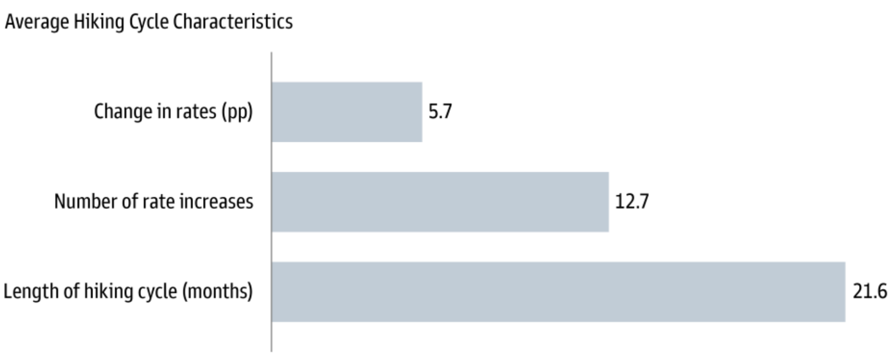
POLICY NORMALIZATION BEGINS…



The Federal Reserve has positioned for liftoff on the back of above-trend growth, diminishing labor market slack, and elevated inflation. We expect steady rate hikes in 2022, which the market now also anticipates. The challenge remains for policymakers to thread the needle between fighting inflation and supporting growth, but we think that their data-dependent, well-choreographed approach should help them to do so.

Source: Goldman Sachs Global Investment Research and Asset Management

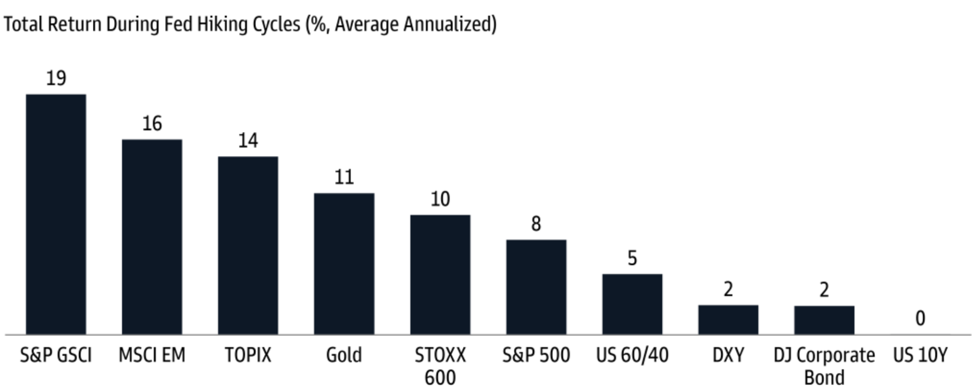
…IN LINE WITH HISTORICAL STANDARDS…



We anticipate a steeper start to this hiking cycle, followed by a longer but shallower path forward. As the Fed has taken a more countercyclical policy path in recent decades, they have more effectively guided through cycles and have diminished the potential for economic shocks. In three of the last four tightening cycles the Fed has achieved soft landings. With a wide array of policy tools at its disposal, growth already normalizing, and inflation likely peaking, we see a sustainable economic path forward.

Source: Goldman Sachs Asset Management

…WITH AMPLE OPPORTUNITIES FOR PORTFOLIOS



Hiking cycles have historically exhibited strong risk asset performance over time. Short-term weakness may be expected, but we believe that the sharpest part of market re-pricing has likely passed. A rising fed funds rate generally coincides with strong GDP growth, which together reinforce positive risk asset returns. We think a tilt toward global equities—with an eye toward value, cyclicals, and down in cap—and real assets may continue to offer attractive returns.

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

Top Section Notes: As of January 31, 2022. Middle Section Notes: As of January 31, 2022. Chart shows the characteristics of the nine Federal Reserve hiking cycles since 1970, including Feb-72 to Jul-74, Jan-77 to Apr-80, Jul-80 to Jun-81, Feb-83 to Aug-84, Dec-86 to Mar-89, Jan-94 to Feb-95, May-99 to May-00, May-04 to Jun-06, and Nov-15 to Dec-18. “Pp” refers to percentage points. Bottom Section Notes: As of January 31, 2022. Please see additional disclosures at the end of this presentation. **Past performance does not guarantee future results, which may vary.**

Important Information

1. Economic forecasts are from Goldman Sachs Global Investment Research as of February 8, 2022. “US Core Inflation” refers to Core PCE, “Euro area Core Inflation” refers to HICP ex food, energy, alcohol and tobacco, “UK Core Inflation” refers to CPI ex food, energy, alcohol and tobacco, “Japan Core Inflation” refers to CPI ex fresh food, and “China Core Inflation” refers to CPI ex food and energy. “Q4” refers to the average for Q4 of that year.
2. Price targets of major asset classes are provided by Goldman Sachs Global Investment Research. Source: “Global equity rebounded 1.9%; Asia outperformed” – 07/02/2022.

Page 1 Definitions:

Bbl refers to per barrel.

BoE refers to Bank of England.

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

Core PCE refers to the core personal consumption expenditure price index, excluding food and energy.

ECB refers to the European Central Bank.

EM refers to emerging markets.

EMD Local refers to emerging markets debt in local currency. The index used is J.P. Morgan GBI-EM Global Diversified Composite Unhedged USD.

EPS refers to earnings per share.

Fed refers to the Federal Reserve.

GDP refers to gross domestic product.

QoQ refers to quarter over quarter.

WTI refers to West Texas Instrument crude oil.

YE refers to year-end.

Page 2 Definitions:

Top chart shows expectations for the US federal funds rate based on Goldman Sachs Global Investment Research forecasts and market pricing of fed futures rates.

Bottom chart shows the average annualized total return of select indices over the past nine Federal Reserve (Fed) hiking cycles since 1970. “S&P GSCI” refers to the S&P Goldman Sachs Commodity Index. “MSCI EM” refers to the MSCI Emerging Markets Index. “TOPIX” refers to the Tokyo Price Index. “Gold” refers to the spot price. “STOXX 600” refers to the STOXX Europe 600. “S&P 500” refers to the Standard and Poor’s 500 Index. “US 60/40” refers to a portfolio with 60% allocation to US equities and 40% allocation to US 10-Year Treasury. “DXY” refers to the US Dollar Index. “DJ Corporate Bond” refers to the Dow Jones Corporate Bond Index. “US 10Y” refers to the US 10-Year Treasury.

Glossary

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 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.

Performance Data

Period (as of Jan-2022)	S&PGSCI	MSCI EM	Topix	Gold	Stoxx 600	S&P 500	US 60/40	DXY	US 10Y	DJ Corp
Jan-2021 - Jan-2022	45%	-7%	-3%	-3%	13%	23%	12%	7%	-4%	-6%
Jan-2020 - Jan-2021	11%	28%	14%	16%	8%	17%	13%	-7%	5%	3%
Jan-2019 - Jan-2020	-5%	4%	11%	20%	15%	22%	18%	2%	11%	11%
Jan-2018 - Jan-2019	-11%	-14%	-12%	-2%	-13%	-2%	0%	7%	4%	-2%
Jan-2017 - Jan-2018	15%	42%	27%	11%	31%	26%	15%	-10%	0%	1%

The currency perspective is USD.

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

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.

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