

MARKET PULSE

MACRO VIEWS

US INFLATION: Falling energy prices and recovering supply chains are likely to continue to push goods inflation lower in the US. Meanwhile, we expect high wage growth to pressure services categories. Currently, the Atlanta Fed's Wage Growth Tracker sits at the highest reading since its inception in 1998 at 6.7%, 3.2pp above the pace we estimate is compatible with the Fed's target inflation.

MONETARY POLICY: In order to limit wage pressures and broader inflation, we believe the Fed must 1) bring GDP growth below trend, enough to 2) materially reduce labor demand, to ultimately 3) slow wage acceleration to 3.5%. As such, we expect the Fed to hike policy rates by 75bps in November, 50bps in December, and 25bps in February, though risks remain inextricably linked to the progression of inflation.

US GROWTH: We expect the Fed's steep pace of financial tightening to lower US GDP growth in 2022 to 1.6%, below trend growth rate of 1.8%. To be sure, we believe the Fed views this below-potential growth as an essential condition to rebalancing the labor market, narrowing the gap between labor demand and supply from 4 million to 2 million.

EUROPE GROWTH: Europe's growth remains dependent on the energy outlook. We now expect a moderate recession instead of a mild one in 2H2022, driven by significant gas disruptions, risks of hawkish surprises from European central banks, and negative growth momentum. Still, continued gas-to-oil substitution and even greater-than-expected energy stockpiles may help limit the severity of recession. In the UK, we believe the energy price cap will limit peak headline inflation to 10.9% but edge core inflation higher, suggesting further upside to the BoE's hiking path.

MARKET VIEWS

EQUITIES: The Fed's speed and magnitude of policy tightening continued to fuel the ongoing equity market selloff. The rise in real rates informed GIR's lower 2022YE S&P 500 price target of 3600, primarily via lower valuations. Fundamentally, we observe a high correlation between rate movements and cost of capital. Still, we believe stable growth and dividend stocks may weather near-term volatility well.

RATES: Our colleagues in GIR raised their rate forecasts across major economies, as central bank policies have not passed peak hawkishness. They now forecast 2022YE 10-year yields for US Treasuries, UK Gilts, and German Bunds to end at 3.75%, 3.50%, and 2.00%, respectively. In our view, yield curves may steepen on the long-end relative to market forwards should growth expectations improve from current levels.

CREDIT: US IG valuations are favorable, as nearly 20% of outstanding index-eligible bonds trade below \$80 of par. However, corporate prioritization of shareholder returns over balance sheet quality may reduce cash on hand. European yields are also attractive, with over €800bn in bonds offering a positive yield pick-up relative to US IG yields of similar duration and credit risk after accounting for hedging costs. Still, broader headwinds in the region pose risks.

Commodities: GIR lowered their oil price forecasts as a strong US dollar and global slowdown drive demand concerns. Still, implications of limited supply and low inventories inform our expectation for further upside. They expect WTI and Brent to end 2022 at \$95/bbl and \$100/bbl, respectively.

Source: Goldman Sachs Global Investment Research (GIR) and Goldman Sachs Asset Management as of September 2022. 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. 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.**

ASSET CLASS OUTLOOK¹

| | Less Favorable | More Favorable |
|-----------------------------|----------------|----------------|
| | Shorter Term | Longer Term |
| EQUITY | | |
| 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 | | |
| EM Corporates | | |
| EM Debt Hard | | |
| REAL ASSETS | | |
| Oil | | |
| Copper | | |
| Gold | | |
| Global Real Estate | | |
| CURRENCIES | | |
| US Dollar | | |
| Euro | | |
| British Pound | | |
| Japanese Yen | | |
| Chinese Renminbi | | |

ASSET CLASS FORECASTS²

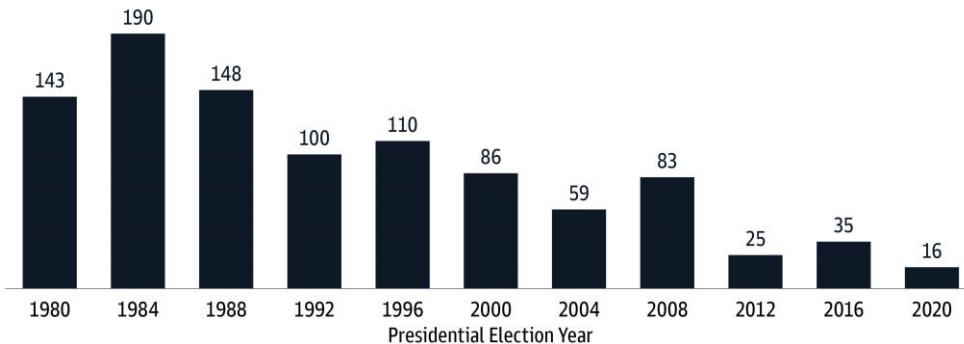
| | Current | 3m | 12m | % Δ to 12m |
|---------------------------------|---------|------|------|------------|
| S&P 500 (\$) | 3586 | 3600 | 4000 | 11.6 |
| STOXX Europe (€) | 388 | 360 | 410 | 5.7 |
| MSCI Asia-Pacific Ex-Japan (\$) | 453 | 460 | 515 | 13.7 |
| TOPIX (¥) | 1836 | 1900 | 2100 | 14.4 |
| 10-Year Treasury | 3.8 | 3.8 | 4.0 | 20 bp |
| 10-Year Bund | 2.1 | 2.0 | 2.3 | 19 bp |
| 10-Year JGB | 0.2 | 0.3 | 0.5 | 26 bp |
| Euro (€/\$) | 0.98 | 0.97 | 1.05 | 8.5 |
| Pound (£/\$) | 1.11 | 1.05 | 1.19 | 10.2 |
| Yen (\$/¥) | 145 | 145 | 125 | (13.3) |
| Brent Crude Oil (\$/bbl) | 88.0 | 100 | 110 | 25.1 |
| London Gold (\$/troy oz) | 7683 | 6700 | 9000 | 17.1 |

When history may not repeat

With US midterm elections nearing, investors are increasingly looking to polls, public sentiment, and history for insight into what November may bring. Midterms have usually favored the opposition party to the President, especially in the House of Representatives. In fact, the opposition party has picked up an average of 26 House seats since World War II. While the odds for Republicans to flip the House remain favorable, margins may stay slim given the fewer number of competitive seats today. In our view, politics may impact future policies, but its predictive signals for market performance remain limited.

COMPETITIVE SHIFTS

Number of Congressional Districts Split between Party of President and House Seat

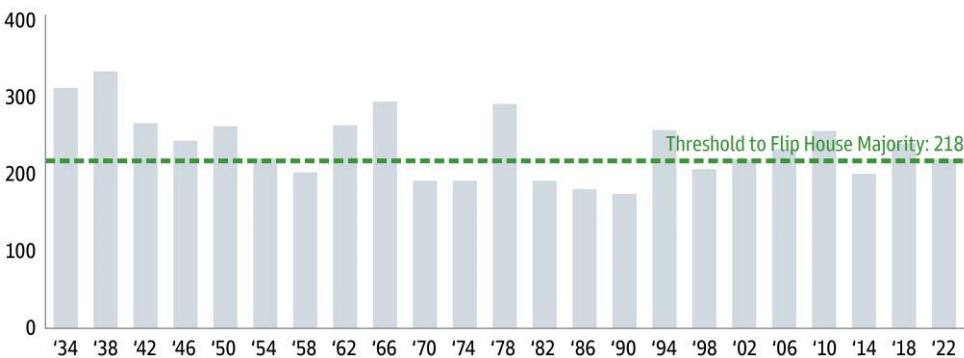


The likelihood that Republicans flip the House in November remains fairly high, albeit with wide tails. However, we believe today's gains might not be as great in magnitude as past elections, making it difficult for history to repeat. Widespread partisan re-districting and broader political polarization have shifted the battleground from general elections to primaries. Consequently, we see fewer competitive seats¹ today, limiting the potential for seismic party shifts.

Source: The Cook Political Report and Goldman Sachs Asset Management.

TIGHT FLIPS

Number of House Seats Held by the President's Party

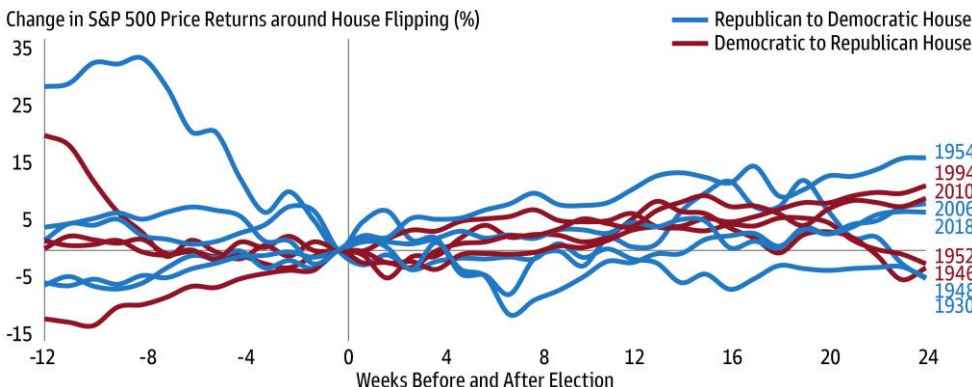


Still, the hurdle to flipping the House is much lower today. Republicans will only need to pick up five seats to flip control of the House, a threshold that has only been equal to or lower two other times in modern history. Meanwhile, in the Senate, candidate quality is paramount with fewer races overall. Ultimately, current polling suggests a strong likelihood of a divided government going forward.

Source: The American Presidency Project (UC Santa Barbara), Predictit, and Goldman Sachs Asset Management.

MIXED MARKETS

Change in S&P 500 Price Returns around House Flipping (%)



In our view, election outcomes may have implications for broader policies. But, for markets, the statistical strength of the relationship between elections and markets has historically been weak. We expect macro risks and fundamentals to be dominant drivers of market returns. As such, political enthusiasm may be best expressed through a vote, not a trade.

Source: Bloomberg and Goldman Sachs Asset Management.

Top Section Notes: As of September 30, 2022. ¹A competitive seat is measured by the Congressional districts voting for a presidential nominee of one party and member of the House in another party. Middle Section Notes: As of September 30, 2022. Chart shows the number of seats in the House of Representatives that were held by the President's party on US midterm election day. "Threshold to Flip House Majority" reflects the minimum number of party seats required to retain the majority in the House. Bottom Section Notes: As of September 30, 2022. Chart shows the S&P 500 price returns leading up to and following US elections in years where the House control flipped from one party to another. Data begins in 1930. 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.** Please see additional disclosures at the end of this document.

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 September 2022 and subject to change in the future. "Shorter Term" view refers to less than 1 year. "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 lost 2.6%; Energy outperformed" – 10/03/2022.

Page 1 Definitions:

Bbl refers to per barrel.

BoE refers to the Bank of England.

Bp refers to basis points.

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

DM refers to developed markets.

Duration refers to the sensitivity of the price of a bond to a change in interest rates.

GDP growth refers to Gross Domestic Product, year-on-year.

Fed refers to the Federal Reserve.

EPS refers to earnings per share.

Hawkishness refers to an aggressive monetary policy stance that prioritizes lowering inflation through raising policy rates.

IG refers to investment grade.

Jobs-to-workers gap refers to the total number of jobs available in the US relative to the total number of workers in the US labor force. Jobs-to-workers gap also refers to the difference between labor demand and labor supply.

HY refers to high yield.

Pp refers to percentage point.

WTI stands for West Texas Intermediate crude oil, a common US benchmark for oil prices.

YE refers to year end.

Page 2 Notes:

Opening Section: Data sourced from Gallup and Goldman Sachs Asset Management.

Top Section: Data reflects competitive US congressional districts in Presidential election years.

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 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).

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

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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.

Alternative strategies often engage in leverage and other investment practices that are speculative and involve a high degree of risk. Such practices may increase the volatility of performance and the risk of investment loss, including the entire amount that is invested. Manager risk includes those that exist within a manager's organization, investment process or supporting systems and infrastructure. There is also a potential for fund-level risks that arise from the way in which a manager constructs and manages the fund. Bonds and Fixed income investing involves interest rate risk. When interest rates rise, bond prices generally fall. Leverage increases a fund's sensitivity to market movements. Funds that use leverage can be expected to be more "volatile" than other funds that do not use leverage. This means if the investments a fund buys decrease in market value, the value of the fund's shares will decrease by even more. Alternative strategies often make significant use of over-the-counter (OTC) derivatives and therefore are subject to the risk that counterparties will not perform their obligations under such contracts. Alternative strategies may make investments that are illiquid or that may become less liquid in response to market developments. At times, a fund may be unable to sell certain of its illiquid investments without a substantial drop in price, if at all. There is risk that the values used by alternative strategies to price investments may be different from those used by other investors to price the same investments. The above are not an exhaustive list of potential risks. There may be additional risks that should be considered before investment decision.

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