



**Asset
Management**

Market Know-How

Triannual Insights and Implementation
2021: Edition 2

Strategic Advisory Solutions

Faster, Higher, Stronger

Macro: Improving health and wealth	4
Markets: Reflation resilience	7
Small- and Mid-Cap: Post-COVID-19 thematic investing	11
International Equity: Macro matters, but micro matters more	12
ESG: Woman-up	13
Core Fixed Income: Diversification in all markets	14
Private Credit: Portfolio Utility Vehicle	15
Tax Loss Harvesting: The taxman cometh	16

Macro and Market Digest

Sources of Market Volatility

Vaccines

60–70%

Immunized Population

needed in order to approach herd immunity.

Variants

>50%

New COVID-19 Cases

in the US estimated to be from new, more contagious strains.

Policy

60

Senate Votes

needed to invoke cloture and pass laws.

Regulation

22%

Five Largest Companies

concentrated in the S&P 500. These large tech companies are on Washington, DC's radar.

Liquidity

72%

US Equity Volume

is algorithmically traded, which could limit liquidity during periods of market shocks.

Sources of Market Stability

Financial Conditions

1st

Decile US FCI

near all-time lows at 97.8, supportive of continued growth.

Fiscal Policy

27%

US GDP

reflects the total US discretionary fiscal spending expected in 2020 and 2021.

Corporates

-17%

US Bankruptcy Rate

decrease in 2020 relative to pre-pandemic levels.

Refinancing

\$3.8tn

Mortgage Origination

in 2020 reflects low interest rates and housing strength.

Households

13.6%

US Savings Rate

sets the stage for potential consumer rebound.

Source: Bloomberg, Federal Reserve, Goldman Sachs Global Investment Research, and Goldman Sachs Asset Management. As of March 31, 2021. 'US FCI' refers to the Goldman Sachs US Financial Conditions Index, a proprietary index measuring the impact of financial variables on the real economy. 'Mortgage origination' refers to the estimated 2020 annual volume of new US mortgages as forecasted by the Mortgage Bankers Association. 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.

Faster, Higher, Stronger

Although COVID-19 may mean that this year's delayed Olympic Games in Tokyo will be like none that has gone before, one constant will be the Olympic motto: Faster, Higher, Stronger. It is a motto that is also apposite for current market conditions.

Some of the moves in fixed income markets this year—such as the sell-off in Treasuries—have been faster than anything we have seen in recent years, and bond markets may remain in a state of flux for the remainder of 2021. As a consequence, core fixed income allocations require risk-aware active management, and security selection in credit markets may become an increasingly differentiated source of returns.

Despite the sell-off in bond markets, global equities remain resilient and continue to grind higher. In our view, that dynamic is likely to remain intact as the earnings recovery becomes the key driver of returns as economies re-open.

And, of course, the moves in both bond and equity markets reflect stronger economic fundamentals with global activity set to surpass pre-pandemic levels this year.

This edition of the Market Know-How will focus on summarizing our macro expectations and providing a framework for positioning over the rest of 2021.

We emphasize:

- Investing sustainably in an increasingly disrupted world.
- Moving down in market cap, out in geographic exposure, and forward in diversity.
- Focusing on high-quality fixed income as a key to risk management irrespective of interest rate levels.

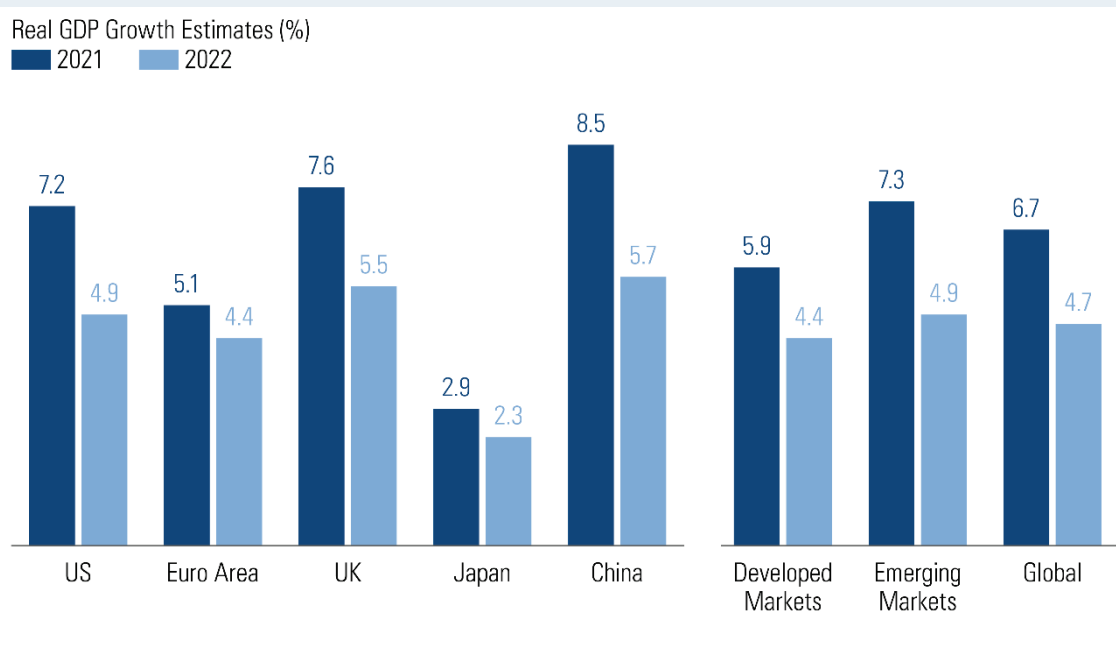
Source: Goldman Sachs Asset Management. Views and opinions expressed are for informational purposes only and do not constitute a recommendation by Goldman Sachs Asset Management to buy, sell, or hold any security. Views and opinions are current as of April 2021 and may be subject to change, they should not be construed as investment advice. 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.

Macro

The global recovery remains firmly on track, despite considerable regional variations. Activity may recover to pre-pandemic levels this year, but we believe the labor market scarring could take far longer to heal. US inflation is likely to be higher this year on temporary factors, but appears subdued globally on longer time horizons. As a consequence, monetary policymakers continue to signal that interest rates are likely to remain low.

GLOBAL GROWTH

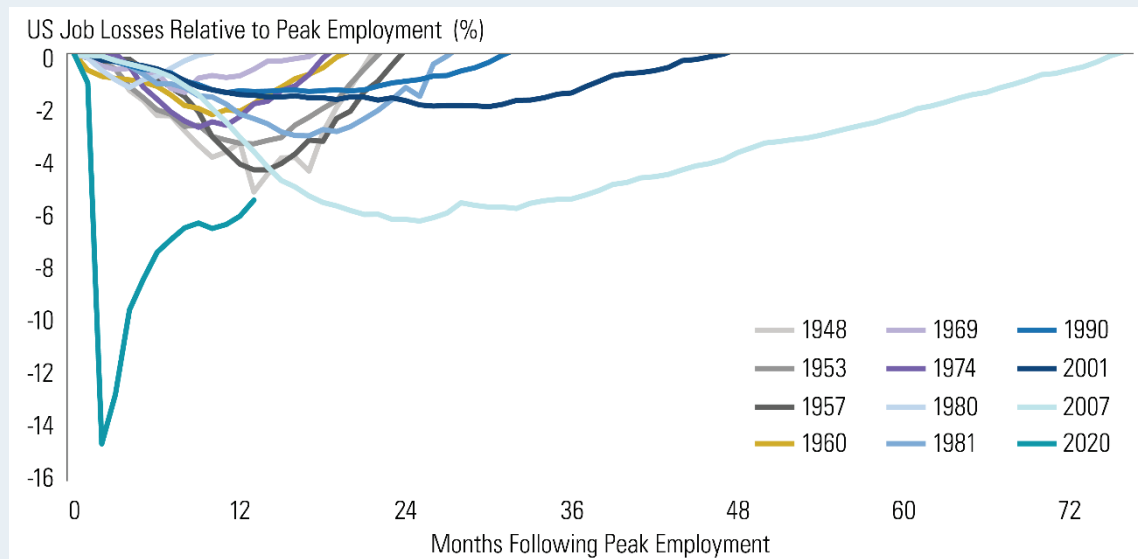
Growth looks set to be strong across the board this year, in our view. Massive fiscal stimulus, historically low interest rates, and a huge war-chest of pandemic-induced household savings provide a confluence of tailwinds. Much of that growth will be a catch-up from the damage caused in 2020, and we expect the strong resurgence to continue well beyond pre-pandemic levels and throughout 2022. Even so, we anticipate a high degree of growth variability across regions dependent on vaccine rollout, policy support, and GDP composition.



Source: Goldman Sachs Global Investment Research and Goldman Sachs Asset Management. As of April 12, 2021. 'Real GDP' refers to Gross Domestic Product adjusted for inflation. 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. **Past performance does not guarantee future results, which may vary.**

LABOR

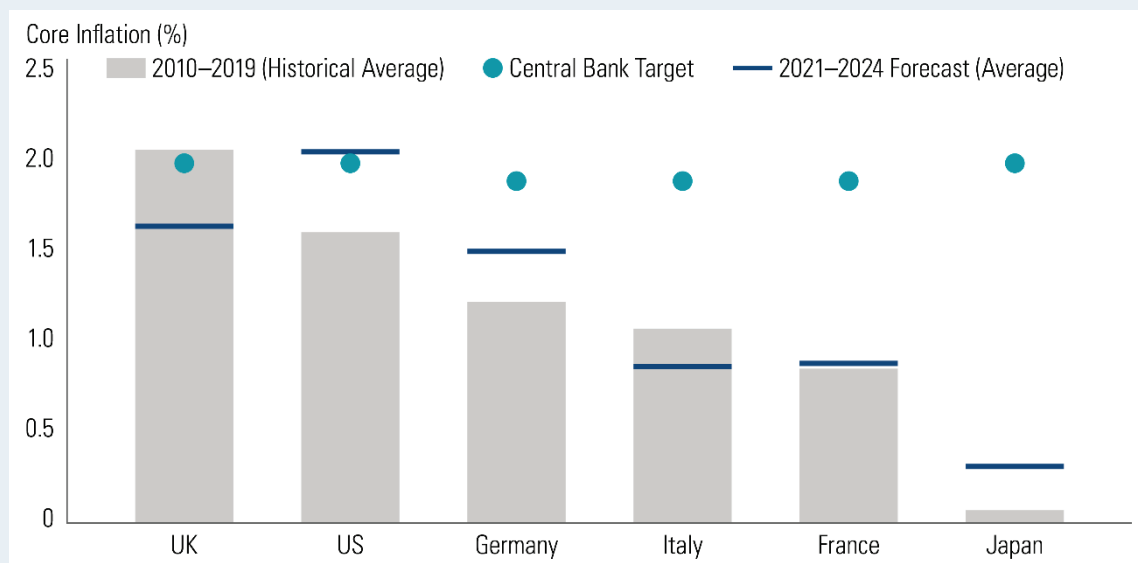
The labor market recovery has lagged far behind that of GDP. Although re-opening this year is likely to remedy a great deal of labor market damage in the US, jobs are so far below pre-pandemic peaks that it may take years, not months, before the scarring in the labor market is fully healed. In Europe, the situation is even more challenging as peak unemployment may not have been reached.



INFLATION

Inflation is likely to move higher this year, mainly reflecting the base effects from moves observed in 2020. On a longer time horizon, inflation is likely to be contained by a combination of:

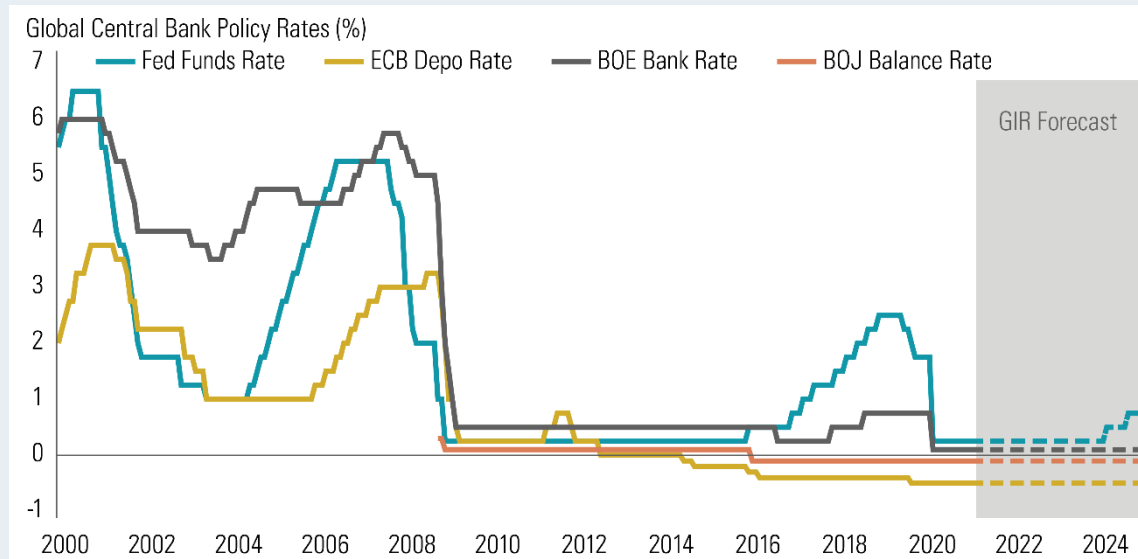
- 1) cyclical forces, such as labor market slack, which may limit wage inflation, and
- 2) ongoing secular forces, including technological change and globalization.



Top Section Notes: Federal Reserve and Goldman Sachs Asset Management. As of March 31, 2021. Chart shows the change in nonfarm payrolls during the last 12 recessions relative to the preceding peak number of jobs. Bottom Section Notes: Bloomberg, Goldman Sachs Global Investment Research, and Goldman Sachs Asset Management. As of March 31, 2021. Core inflation for the UK, Germany, Italy, and France is measured by the core Consumer Price Index (CPI), which excludes food and energy. Core inflation for the US is measured by the core Personal Consumption Expenditures (PCE) price index, which excludes food and energy. Core inflation for Japan is measured by the national core Consumer Price Index (CPI), which includes energy but excludes food. The economic and market forecasts presented herein are for informational purposes as of the date of this document. Central bank targets for inflation are set by respective country central banks with the exception of Germany, Italy and France which share a target set by the European Central Bank. There can be no assurance that the forecasts will be achieved. **Past performance does not guarantee future results, which may vary.**

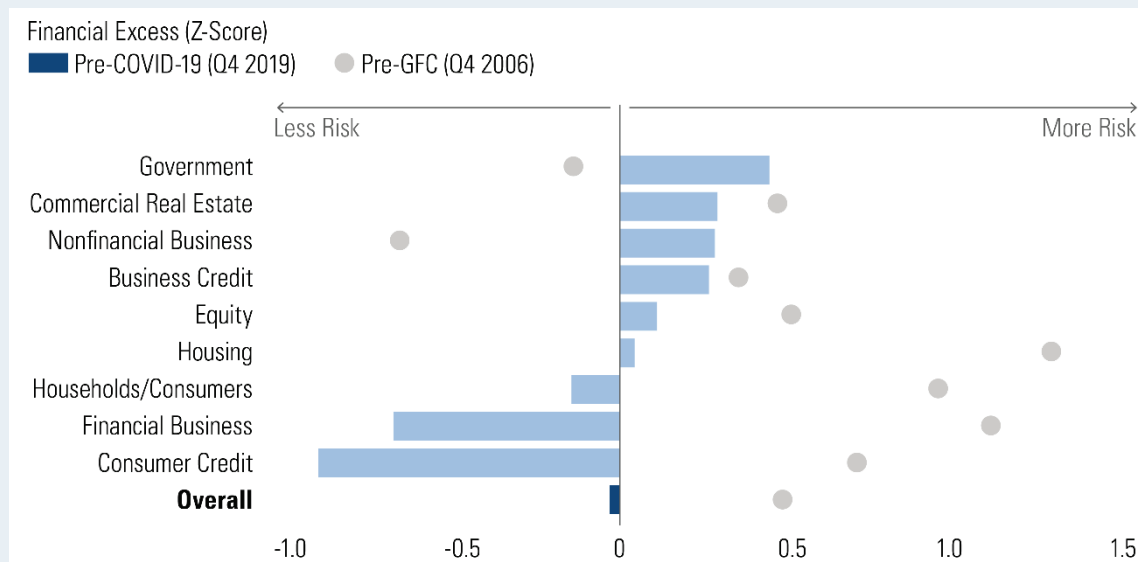
POLICY

While the likelihood of strong growth this year will be welcome news to G10 central banks, the probable lags on the recovery in employment and inflation point toward ongoing monetary policy support for a prolonged period of time until there is “substantial progress.” A lesson learned globally from the post-GFC policy response is to avoid withdrawing the monetary adrenaline prematurely after an economic anaphylactic shock.



RISKS

Our expectation of strong growth over the next two years does not ignore the multiplicity of risks which abound: (geo)political uncertainty, debt dynamics, regulatory concerns, and pockets of illiquidity, to name a few. The post-crisis global fiscal adjustment, in particular, poses a significant risk. However, the absence of financial excess, especially relative to the prior cycle, underlies our conviction in a robust recovery and ongoing risk asset momentum.



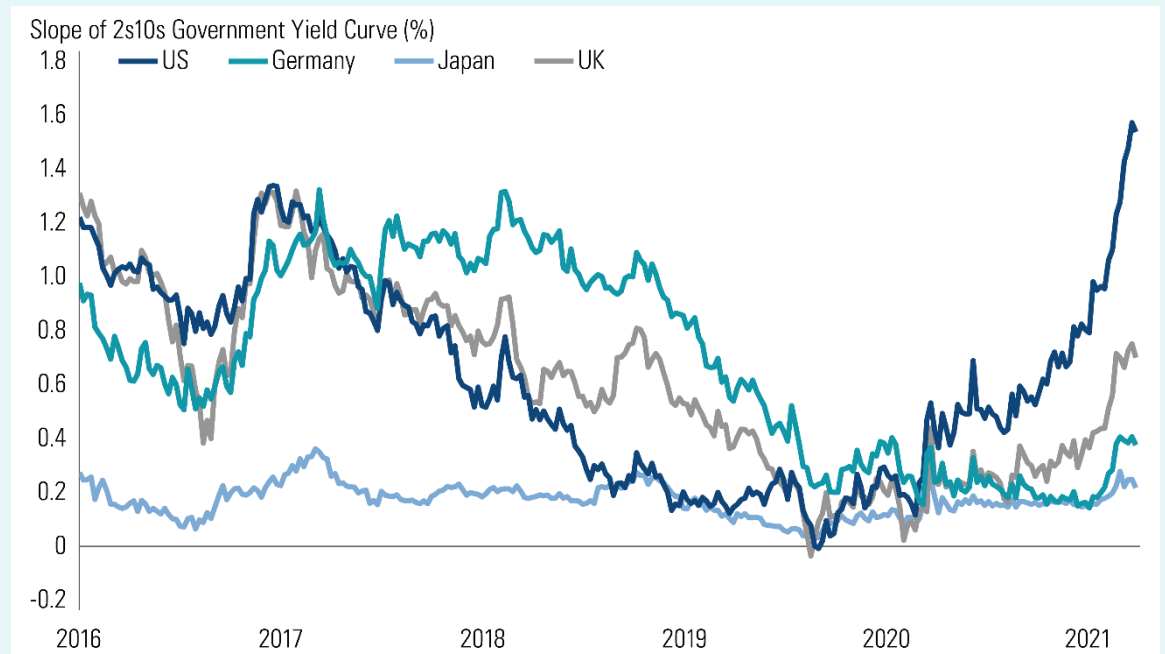
Top Section Notes: Bloomberg, Goldman Sachs Global Investment Research, and Goldman Sachs Asset Management. As of March 31, 2021. Chart shows historical central bank policy rates and the GIR forecast for the US federal funds rate, European Central Bank (ECB) deposit rate, Bank of England (BOE) Bank Rate, and Bank of Japan (BOJ) Balance Rate. 'G10' refers to the group of 11 industrial countries (Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the UK, and the US) which consult and co-operate on economic, monetary and financial matters. Bottom Section Notes: Goldman Sachs Global Investment Research and Goldman Sachs Asset Management. As of December 31, 2020, latest available data. Chart shows the level of financial excess risk in the economy before COVID-19 in Q4 2019, and before the Global Financial Crisis (GFC) in Q4 2006. 'Z-score' refers to the number of standard deviations from average. **Please see additional disclosures on page 20 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.**

Markets

Market concerns have lately been dominated by the reasons for, and the consequences of, the steepening of yield curves. While that dynamic could still continue, the principal reason for the moves this year has been the apparent strength of the recovery which, itself, is supportive of risk assets. As the post-pandemic world emerges, the dispersion of investment outcomes could be much wider than usual, favoring careful security selection.

RATES

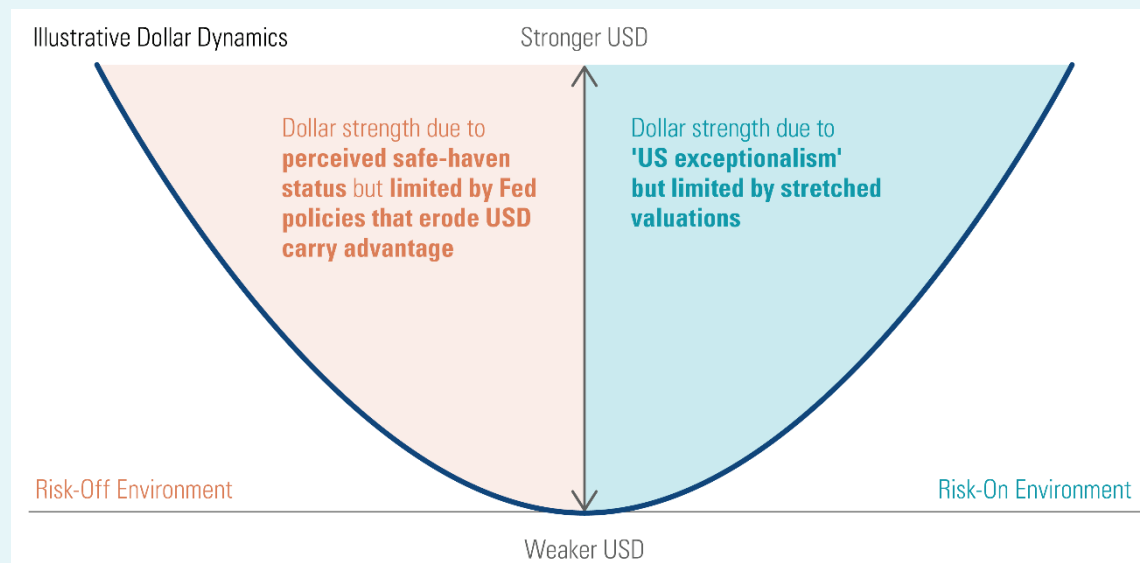
The momentum behind the reflation trade has caused yield curves to steepen across most major markets, led by the US. Much of that steepening reflects rising inflation breakevens which, from the perspective of central banks, will be deemed a policy success as markets have pulled back from the deflation fears of 2020 to pricing something more “normal.” Consequently, policy is unlikely to re-flatten the curve back to end-2020 levels and, as breakevens and real rates respond to ongoing positive economic news, further steepening is possible.



Bloomberg and Goldman Sachs Asset Management. As of March 31, 2021. Chart shows the difference between yields on the 2-Year government bond and the 10-Year government bond for the US, Germany, Japan, and UK from January 2016 to present. **Past performance does not guarantee future results, which may vary.**

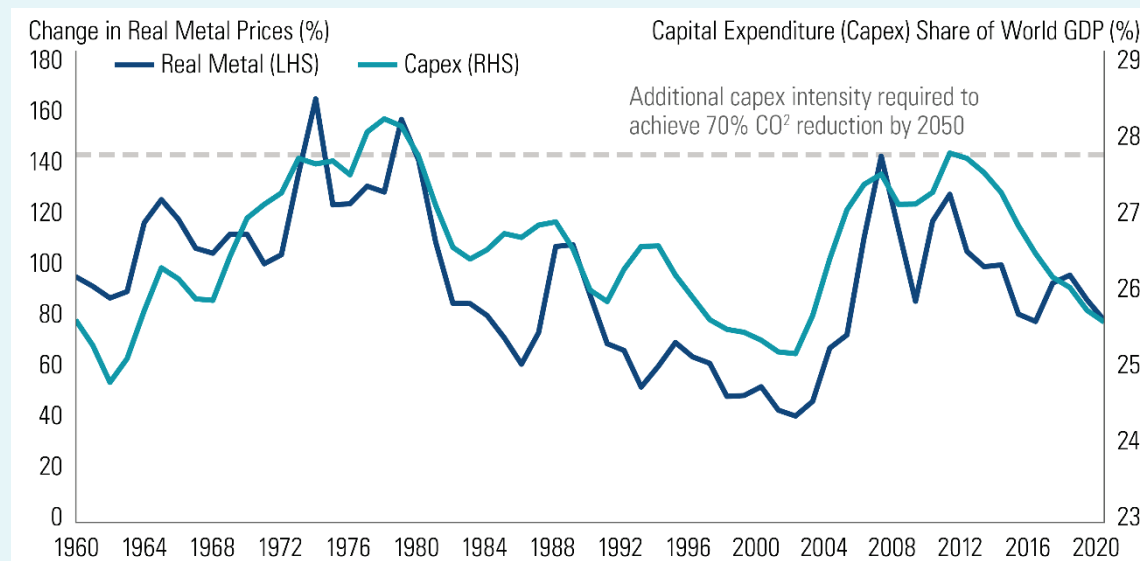
CURRENCIES

Although the market's net short position on the US dollar has been trimmed since the start of the year, it remains a crowded trade that is vulnerable to sharp correction if the US economy continues to outperform its G10 peers. The renminbi could benefit this year from strong growth in China, and sterling may trade in a more stable fashion now that the major parameters of Brexit are known.



COMMODITIES

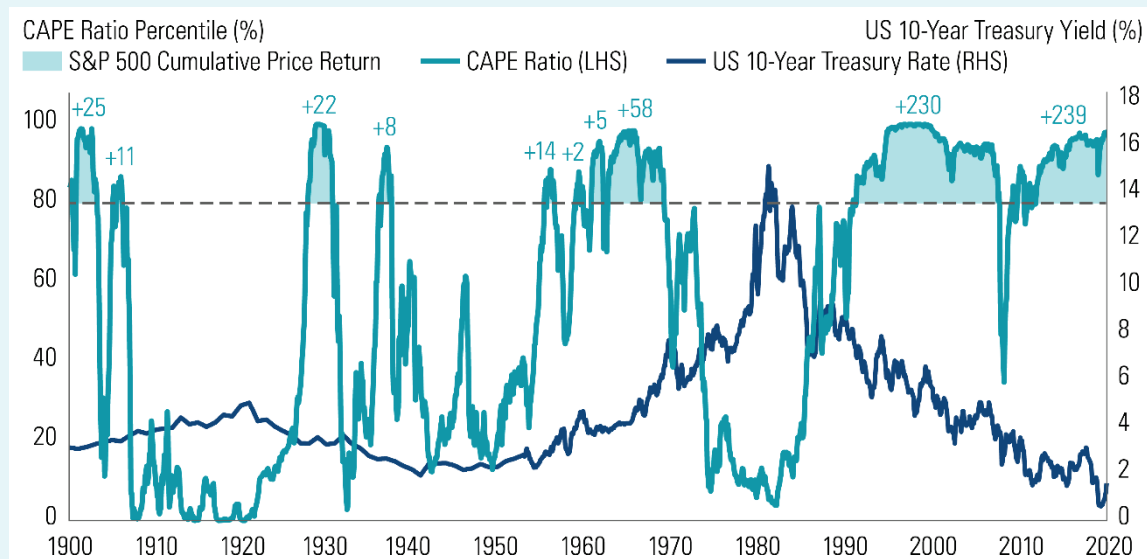
The revival of economic fortunes in the US and China has fed into a rebound in commodities from the depressed levels observed last year. While commodity volatility may remain elevated—trading on fundamentals, technicals, and geopolitics—we think the medium-term outlook remains constructive for the commodity complex, particularly base metals, which may also benefit from a structural rebalancing toward renewables.



Top Section Notes: Goldman Sachs Asset Management. As of March 31, 2021. For illustrative purposes only. Chart shows US dollar performance in risk-off and risk-on environments, demonstrating that it has potential to be strong in the extremes of both market conditions. 'Carry advantage' refers to the incremental yield gained by investing in a higher-yielding currency relative to a lower-yielding currency. 'USD' refers to the US dollar. Bottom Section Notes: Maddison Project, Goldman Sachs Global Investment Research, and Goldman Sachs Asset Management. As of January 1, 2021. Chart shows historical levels of capital expenditures (capex) as a share of world Gross Domestic Product (GDP), and the projected additional capital expenditures (relative to 2010 levels) needed to achieve a 70% reduction in carbon dioxide emissions by 2050. 'Real metal prices' refer to the inflation-adjusted prices of industrial metal commodities. 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.

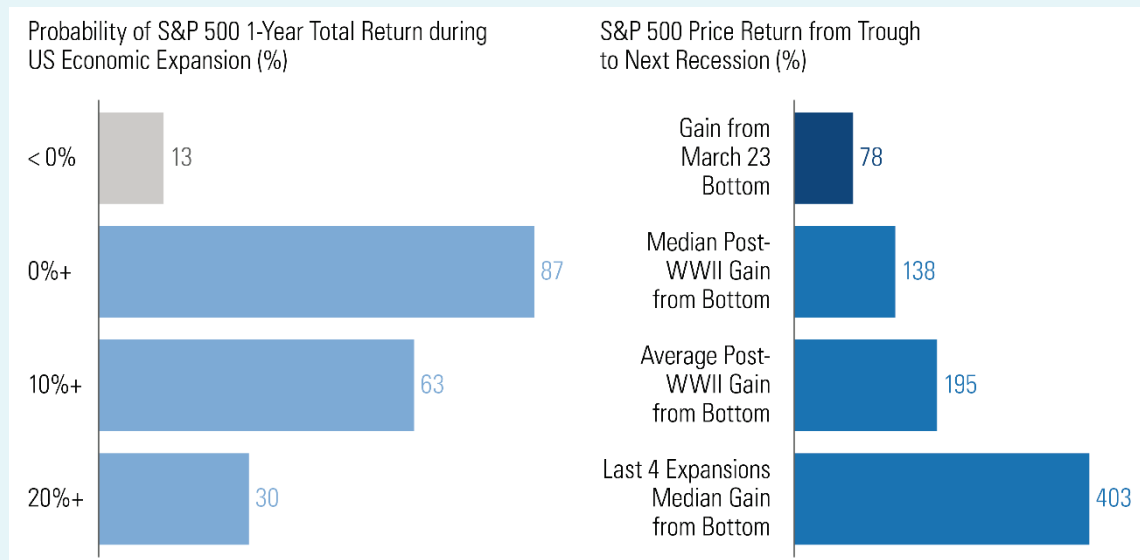
GLOBAL EQUITIES

Equities have been remarkably resilient in the face of a material sell-off in sovereign rate markets. Even so, interest rates near historical lows have sustained elevated equity valuations as investors look toward improved earnings and the vaccine rollout to pave the way for a return to some semblance of “normality” later this year.



GOING FORWARD

Although concerns over US equity market valuations are understandable, the strong rebound in the S&P 500 from 2020 lows is still far smaller than the typical total return experienced between the start of an equity market recovery and the next recession. While the US economy remains in expansion mode, the historical probability of the S&P 500 delivering positive returns over a one-year period is close to 90%.



Top Section Notes: Bloomberg, Robert Shiller, Goldman Sachs Global Investment Research, and Goldman Sachs Asset Management. As of March 31, 2021. 'CAPE Ratio' refers to the Cyclically Adjusted Price-to-Earnings ratio. 'US 10-Year Treasury Yield' refers to the interest rate of the constant maturity US 10-Year Treasury as sourced from Robert Shiller. Bottom Section Notes: Bloomberg and Goldman Sachs Asset Management. As of March 31, 2021. US economic expansions are based on the National Bureau of Economic Research's business cycle data. Expansion is the phase of the business cycle where real Gross Domestic Product (GDP) grows for two or more consecutive quarters, moving from trough to peak. Bottom left chart shows the likelihood of subsequent one-year S&P 500 Index returns during periods of US expansions post-WWII, from 1945-2021, based on total return ranges. Bottom right chart shows the performance of the S&P 500 Index from market bottom to the next US recession. **Past performance does not guarantee future results, which may vary.**

Macro and Markets Recap

Macro:
Improving health and wealth

Markets:
Reflation resilience

Know-How

Small- and Mid-Cap:

Post-COVID-19 thematic investing

International Equity:

Macro matters, but micro matters more

ESG:

Woman-up

Core Fixed Income:

Diversification in all markets

Private Credit:

Portfolio Utility Vehicle

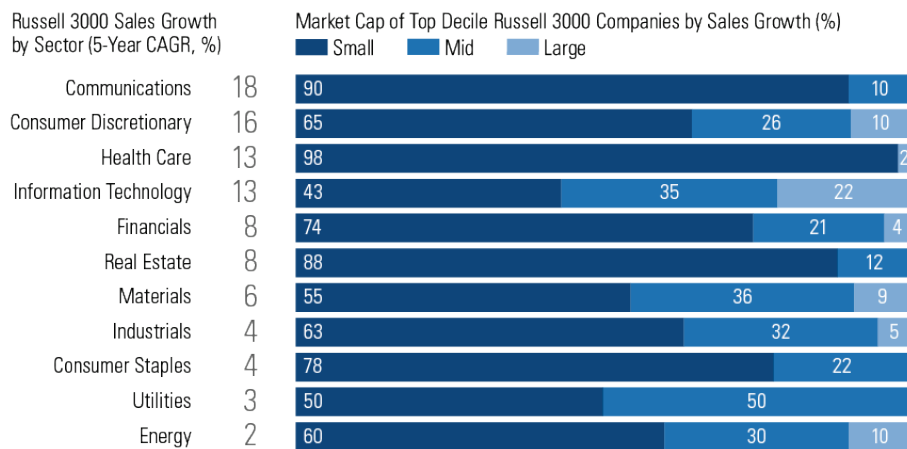
Tax Loss Harvesting:

The taxman cometh

Source: Goldman Sachs Asset Management. Views and opinions are current as of April 2021, and may be subject to change, they should not be construed as investment advice. Economic and market forecasts presented herein reflect our judgment 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 Asset Management has no obligation to provide updates or changes to these forecasts. Examples are for illustrative purposes only. Goldman Sachs does not provide accounting, tax or legal advice. Please see additional disclosures at the end of this document.

The fast lane. A small- and mid- (SMID) cap race to becoming a top revenue grower.

Broadening US Market Leadership



Source: Bloomberg and Goldman Sachs Asset Management.

Market performance over the past five years has increasingly rewarded efficient businesses with high growth potential. Large US companies with rich balance sheets, significant market share, and economies of scale have attracted the lion's share of investor dollars. Yet a closer look at performance tells us that US SMID-cap has become equally competitive today. Across every sector, US SMID-cap companies represent 78% or more of top decile revenue growers in the all-cap Russell 3000 Index. We believe this trend will gain momentum as tech transformation continues to unlock innovation for smaller, more nimble players of the US equity market.

Left Section Notes: As of March 31, 2021. Chart shows the Compound Annualized Growth Rate (CAGR) from Mar 2016 - Mar 2021, based on the Russell 3000 sales growth by sector. Sales growth is measured by the year-over-year growth of each sector's net sales. Market capitalization used to determine the cut-off thresholds for small, mid, and large-cap companies are based on the Russell 3000 index classifications as of 2020. Russell 3000 companies that are also the top 20% largest companies in the Russell 1000 Index are considered 'large-cap' while those that represent the bottom 80% of the Russell 1000 Index are considered 'mid-cap.' All remaining Russell 3000 companies are considered 'small-cap.' Right Section Notes: As of March 31, 2021. Chart shows examples of post-COVID-19 trends across five major sectors. For illustrative purposes only. **Past performance does not guarantee future results, which may vary.**

The way forward. Megatrends are redefining the investment landscape.

Identifying Specific Investment Opportunities

Post-COVID-19 Trend Acceleration

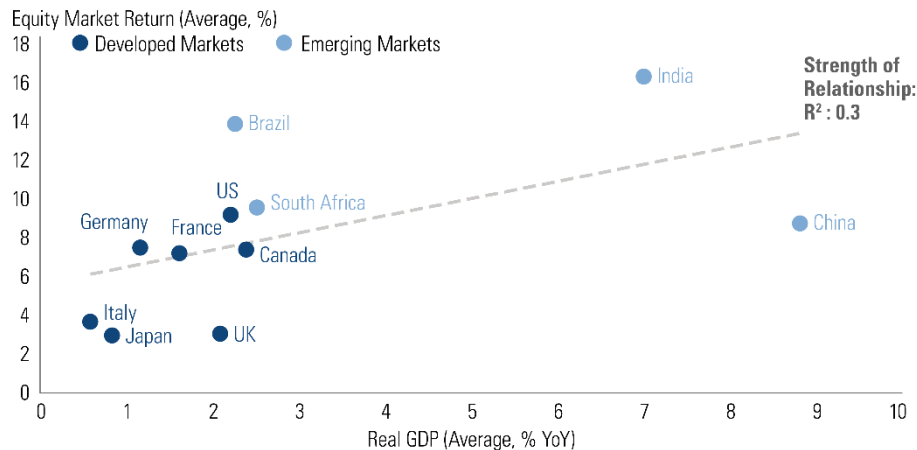
	Communication Services	Online Dating, Risk Planning, Internet of Things (Smart Cities and Smart Homes), Digital Creators
	Consumer Preferences	Pet Economy, Streaming Economy, Digitalization of Experiences, The Great Outdoors, Conscious Consumer, Direct-to-Consumer, Hygiene and Sanitation
	Health Care	Remote Patient Monitoring, Predictive Health Care, Digital Fitness, Telehealth, Robotic Surgery, AI Drug Discovery, Genomics, Personalized Medicine
	Information Technology	Quantum Computing, Education Technology, Artificial Intelligence, Digital Payments/Fintech, Data Monetization, Blockchain, 5G, Digital Transformation
	Sustainable Industry	3D and 4D Printing, Electric Transportation, Service Robotics/Drones, Battery Technology, Logistics and Fulfillment, Sharing Economy, Reshoring Supply Chains, Clean Energy

Source: Goldman Sachs Asset Management.

Finding high-growth US public companies may increasingly come from investing in themes accelerated by COVID-19: new age communication, consumer preferences, health care, information technology, and sustainable industry. We believe portfolio implementation of these themes will require careful company selection that may be better achieved through SMID-cap investing. Unlike US large cap, US SMID cap is home to a greater variety of companies operating in distinct business verticals across a sector's value chain. Greater precision in identifying the right company for the right investment idea may open doors to unique, differentiated revenue streams in the future.

Macro matters. Economic growth may influence equity performance.

Economic Growth and Equity Market Returns

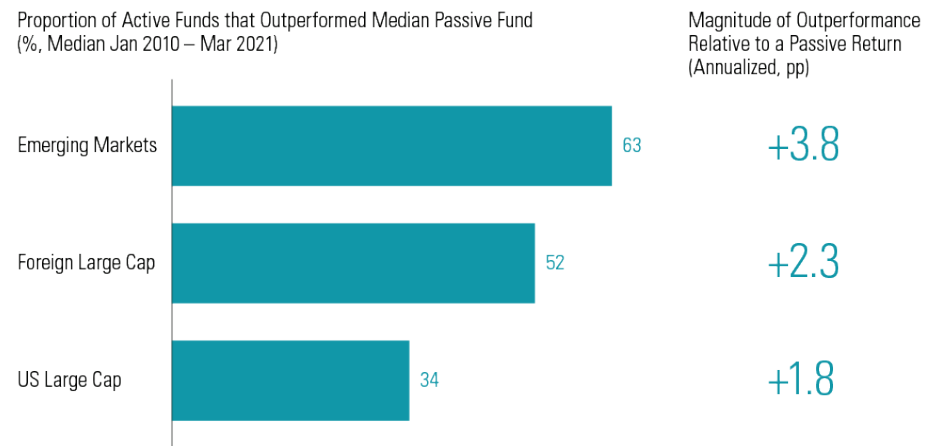


Source: Bloomberg and Goldman Sachs Asset Management.

Investors often question how their views on economic growth should inform how they choose to invest in developed and emerging markets. Economic theory suggests that growth influences equity markets in stages: 1) higher corporate profit growth, which leads to 2) higher EPS growth, which finally translates into 3) an increase in stock prices. While such a progression makes intuitive sense, in practice we do not see a particularly strong statistical relationship. Historical data shows that a country's real GDP has some positive, but not meaningful, degree of explanatory power on equity market performance.

Micro matters more. Most performance comes from stocks, not countries.

Active Outperformance



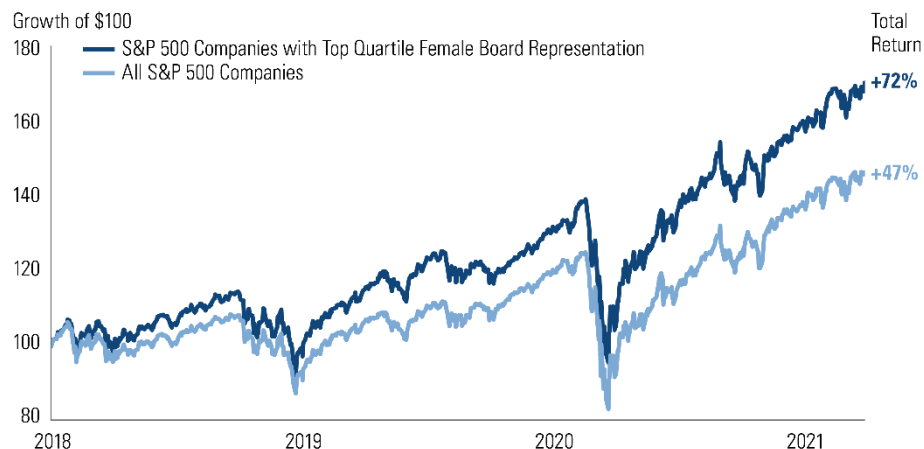
Source: Morningstar and Goldman Sachs Asset Management.

We believe that outperformance in international developed equities and emerging market equities comes less from country beta, and more from security selection. Data shows that since 2010, a significant proportion of international fund managers have delivered returns in excess of their passive counterparts when compared to US large cap managers. The magnitude of this outperformance is also pronounced for international fund managers, with emerging market and foreign large cap managers outperforming the median passive fund by 3.8pp and 2.3pp, respectively.

Left Section Notes: As of December 31, 2020. Annual data from December 31, 1996 onward. Countries selected include the 'G7' (Canada, France, Germany, Italy, Japan, UK, US) and the 'BRICS.' Russia was excluded due to being an outlier. 'EPS' refers to earnings per share. Right Section Notes: As of March 31, 2021. 'Proportion of active funds that outperformed median passive fund' refers to the median percentage of actively managed funds from Jan 2010 to Mar 2021 with returns in excess of the respective median passive ETF, over one-year rolling periods. 'Magnitude of outperformance relative to passive return' refers to the median magnitude of outperformance from Jan 2010 to Mar 2021 of active funds versus their respective median passive ETF return, on a one-year rolling basis. **Emerging markets securities may be less liquid and more volatile and are subject to a number of additional risks, including but not limited to currency fluctuations and political instability. Past performance does not guarantee future results, which may vary.**

Why diversify? Companies with material female representation have generated stronger returns than the benchmark.

Companies with Female Leaders have Outperformed



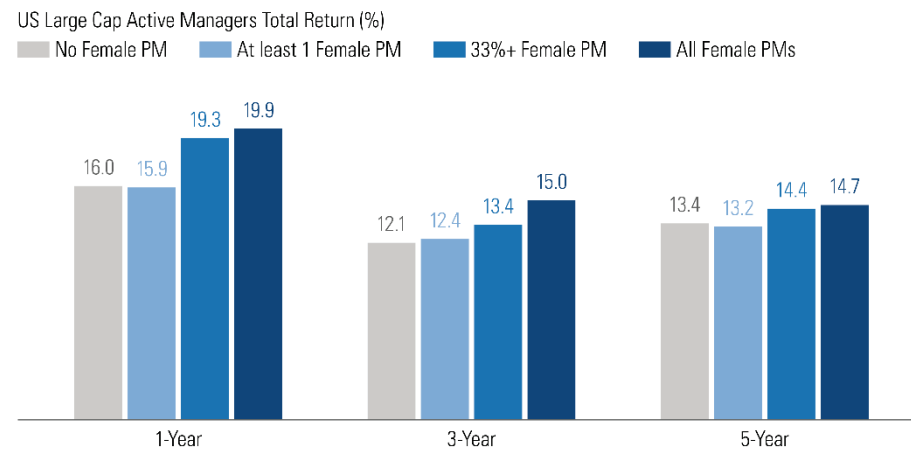
Source: Bloomberg and Goldman Sachs Asset Management.

We believe that incorporating diverse perspectives drives better corporate outcomes. Data suggest that higher representation of female employees, managers, and executives all coincide with stronger performance. In 2020, for the first time, every S&P 500 company board had female representation. More importantly, a quarter of companies had boards where women filled at least one-third of the seats. This level is significant—it is where women are more than just a token voice, but have a meaningful presence at the table. Over the last three years, companies with top quartile female board representation (>33%), outperformed the broader index by 25pp. Adjusting for sectors and size makes the argument for diversification even stronger.

Left Section Notes: As of March 31, 2021. 'Top quartile female board representation' refers to the 125 companies with the highest 25% of female board representation, at 33% or more female. Right Section Notes: As of December 31, 2020. 'PM' refers to portfolio manager. 'US large cap active managers' refer to the Morningstar categories US Fund Large Blend, Growth, and Value. **Past performance does not guarantee future results, which may vary.**

Outperformance, she wrote. Diversification in portfolio management has also improved outcomes.

Funds with Female Investors have Outperformed

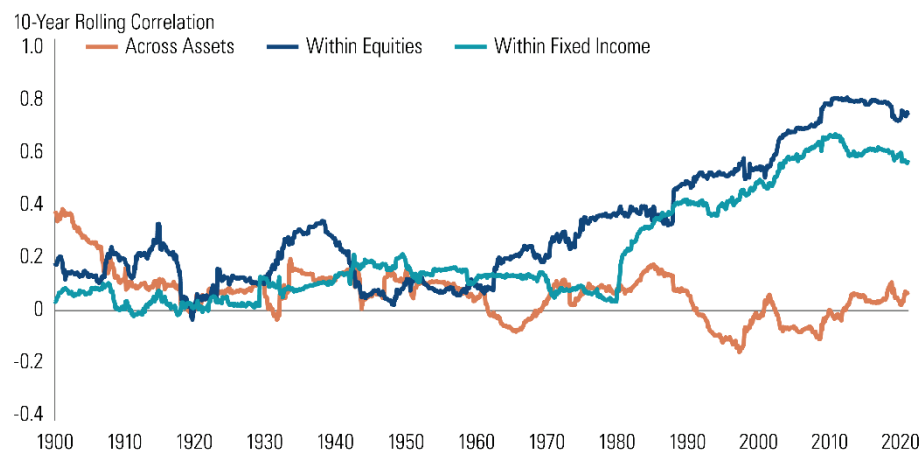


Source: Morningstar and Goldman Sachs Asset Management.

Investment managers with more gender diversity have also outperformed over time. Here too, adding one woman does not necessarily move the needle. However, when more than 33% of a portfolio management team is female, outperformance has been significant in the US large cap equity space. In this highly competitive market for active managers, diversity clearly has an edge. Female PMs have also outperformed from a risk-adjusted perspective, with all-female teams generating a 21% higher Sharpe ratio versus teams with no women over the last three years. Even so, female-managed funds are the minority today. Teams with more than 33% female PMs make up only 10% of all US large cap active mutual funds and 9% of assets under management.

Eggs in many baskets. Diversification across asset classes is stronger than within them.

Core Fixed Income is a Key Diversifier Across Assets



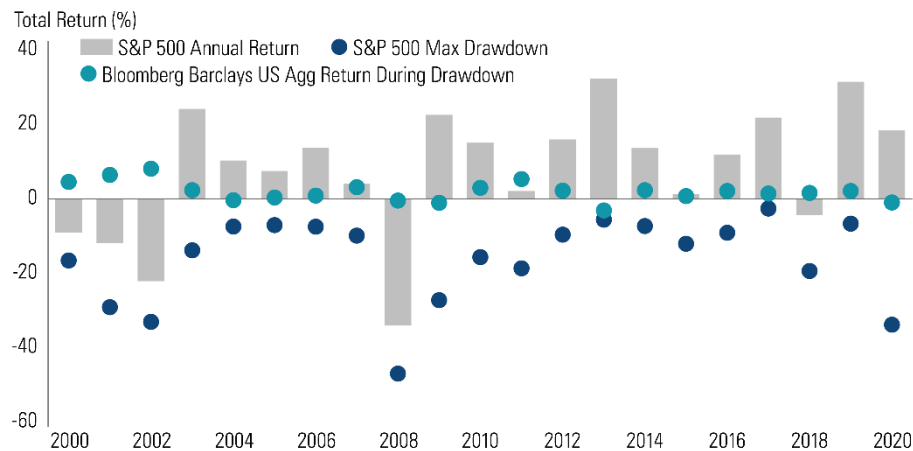
Source: Goldman Sachs Global Investment Research, Global Financial Data, and Goldman Sachs Asset Management.

Over the last 30 years, correlations within asset classes steadily climbed as markets became more globalized: equities have tended to move with other equities, and bonds with other bonds. In order for investors to diversify effectively, we believe they need to allocate across multiple asset classes. The core of a balanced portfolio relies on developed market equities and investment-grade bonds, but investors may also consider fixed income diversifiers, alternatives, and commodities. We believe a well-rounded portfolio may be the best defense in times of volatility, as well as the best offense to identify global opportunities.

Left Section Notes: As of February 28, 2021. 'Across assets' refers to the 10-year rolling correlation between the S&P 500 Index and US 10-Year Treasuries, gold, commodities, Japanese yen, and Swiss franc. 'Across equities' refers to the 10-year rolling correlation between the S&P 500 Index and the DAX, FTSE, Europe, Japan, and EM equity indices as defined by Global Financial Data. 'Across bonds' refers to the 10-year rolling correlation between the US 10-Year Treasury and the US 30-Year Treasury, German 10-Year Bund, UK 10-Year Gilt, Italian 10-Year BTP, Spanish 10-Year government bond, and Japanese 10-Year government bond. Past correlations are not indicative of future correlations, which may vary. Right Section Notes: As of December 31, 2020. 'S&P 500 max drawdown' refers to the maximum intra-year S&P 500 drawdown. 'Bloomberg Barclays US Agg Return During Drawdown' refers to the total return of the Bloomberg Barclays Aggregate Bond Index during the period when the S&P 500 experienced its maximum drawdown. **Past performance does not guarantee future results, which may vary.**

Sunny side up. Core fixed income has been steady in bouts of equity volatility.

Strength in Stability







Source: Bloomberg and Goldman Sachs Asset Management.

In a multi-asset portfolio, the core ballast over time has been a high-quality fixed income allocation. Not every year will be as volatile as 2020, but in most years equity markets have experienced some bouts of uncertainty. Since 2000, the average annual return of the S&P 500 Index has been nearly +8%, but the average maximum annual drawdown has been more than -16%. It is in these periods of volatility where core fixed income has shown its strength, returning on average +2% over the same periods of maximum equity drawdown. Similar to home construction, we believe a high-quality fixed income foundation is key to a well-designed portfolio.

Keep it private. A cyclical asset offering inflation protection.

Risk-Adjusted Performance By Market Environment

Private Credit Performance During Business Cycles

	ECONOMIC GROWTH	INFLATION
Rising	 Private Credit Earnings and asset valuations rise Default rates and spreads decrease	 Private Credit Floating rate structure limits the effect of inflation and rising rates Present value of future cost of default falls
Falling	 Private Credit Earnings and asset valuations fall Default rates and spreads increase	 Private Credit Rate floors provide yield protection Present value of future cost of default rises

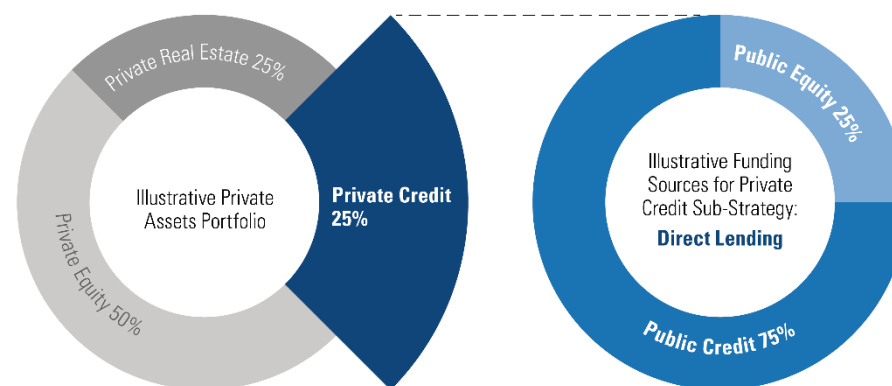
Source: Cliffwater and Goldman Sachs Asset Management.

As global rates continue to hover at historically low levels, private credit markets may offer attractive opportunities to boost long-term risk-adjusted returns relative to traditional fixed income assets. Private credit solutions are often constructed with a floating rate structure, which may be an effective hedge against the risks of inflation and rising rates. Additionally, given private credit's pro-cyclical nature, it may be well positioned in an environment of rising growth and inflation. A stimulus-driven economic rebound that ultimately leads to improving earnings, tight spreads, and fewer defaults, may also provide a meaningful tailwind.

Left Section Notes: As of March 31, 2021. The table shows historical performance of private credit across four environments: 1) rising growth 2) rising inflation 3) falling growth 4) falling inflation. 'Floating rate structure' refers to a lending structure with interest rates that fluctuate with the market or are tied to an index. Right Section Notes: As of March 31, 2021. 'Funding source' refers to an investment that is sold to generate proceeds to purchase another investment. Chart shows illustrative funding sources for direct lending, a sub-strategy within private credit. Actual proportions of funding sources may vary. **Investments in fixed income securities are subject to credit, liquidity, and interest rate risk.** Please see additional disclosures at the end of the document.

Funding private assets. Matching the characteristics of the funding source to those of the private asset.

Illustrative Private Credit Funding Sources

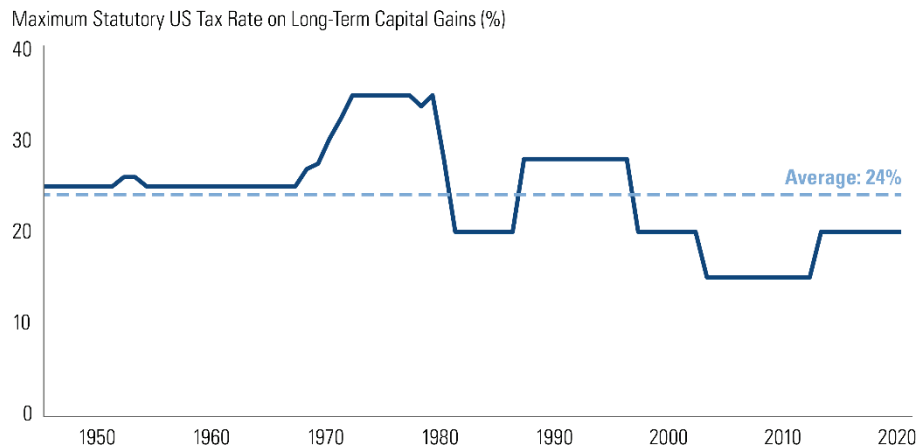


Source: Goldman Sachs Asset Management.

Investors seeking to add private assets to their existing portfolio may question how to size and fund their exposure. We believe that investors should attempt to match the characteristics of the funding source to those of the private asset being added. For example, private credit shares similar characteristics to public credit, such as high yield bonds and bank loans, as well as to public equity. Within a private credit sub-strategy, such as direct lending, the proportions of funding sources may vary based on the attributes of the sub-strategy. Consequently, we believe in proportionally funding the sub-strategy's exposure from public credit and public equity markets (if private equity is not available).

The taxman cometh. Rates are likely to revert higher in coming years.

Tax Rates are Below Average

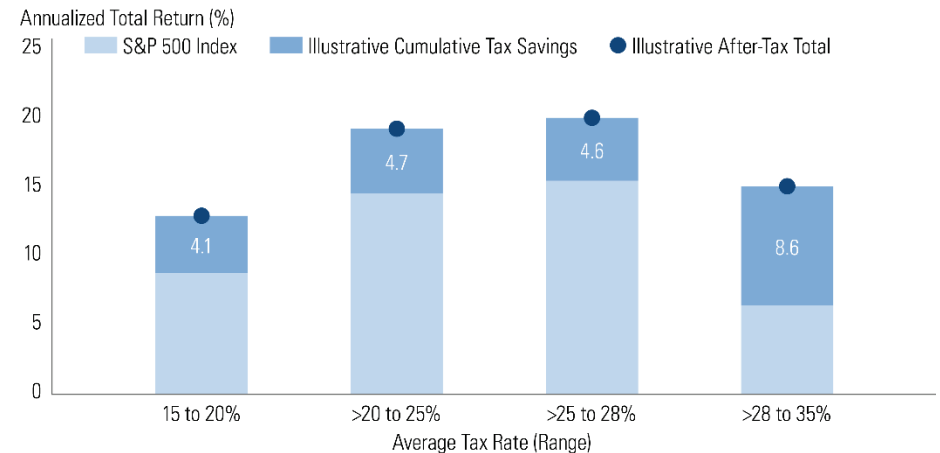


Source: Wolters Kluwer Tax & Accounting and Goldman Sachs Asset Management.

Given record-high public debt levels and relatively low tax rates, we think taxes are more likely to move higher than lower over the next decade. Investments may be one such target area. Currently, long-term capital gains and qualified dividends are taxed at a maximum rate of 20%, along with an additional 3.8pp on investment income. If Congress does raise taxes on capital gains and dividends, we believe a rate around 28% may become the new ceiling—the same level President Reagan and a divided Congress agreed to in the Tax Reform Act of 1986.

A penny saved. Loss harvesting can be even more beneficial in higher tax regimes.

Tax Savings Go Above Average



Source: Bloomberg and Goldman Sachs Asset Management.

An increase in the capital gains rate may cause a short-term momentum reversal and valuation re-rating in equity markets, but more significantly it may lead investors to be more prescriptive about long-term asset location. For example, tax loss harvesting in equity portfolios may become even more advantageous as investors strategically realize losses to offset their capital gains. In low-tax environments (15-20%), loss harvesting has added 4.1pp on average to after-tax annualized total returns. In higher-tax regimes (>28-35%), loss harvesting has added more than double that, with 8.6pp of tax savings on average.

Left Section Notes: As of December 31, 2020. Chart shows the maximum US statutory tax rate on long-term capital gains from 1945 through 2020, not including surtaxes such as net investment income tax. Right Section Notes: As of March 31, 2021. For illustrative purposes only. Chart shows annualized returns of monthly rolling three-year periods from December 31, 1945 to present, bucketed based on ranges of the average tax rate during the rolling three-year period. 'Illustrative cumulative tax savings' refers to the hypothetical taxes saved by realizing monthly losses at the contemporary long-term capital gains tax rate of the given period. Index returns are used as a proxy for baskets of similar stocks. Analysis does not factor wash sale rules. Actual results may vary. Goldman Sachs does not provide accounting, tax, or legal advice. For illustrative purposes only. Please see additional disclosures at the end of the document. **Past performance does not guarantee future results, which may vary.** The performance results are based on historical performance of the indices used. The results will vary based on market conditions. If any assumptions used do not prove to be true, results may vary substantially.

Contributors



John Tousley, CFA
Managing Director,
Global Head of Market Strategy

John leads the Market Strategy team, focusing on global capital markets, macro strategy, and implementation. He specializes in developing tactical and strategic investment insights within a risk-aware framework.



Candice Tse
Managing Director,
US Head of Market Strategy

Candice is responsible for economic and market strategy, along with client engagement on investment solutions. Her areas of expertise include ESG investing, Womenomics, and emerging markets.



James Ashley
Executive Director,
International Head of Strategic Advisory
Solutions

James is the head of the International Market Strategy team, with responsibility for providing actionable investment ideas and perspectives on the latest international market developments.



Romain Duvergé
Executive Director,
Senior Market and Portfolio Strategist

Romain is part of the International Market Strategy team, responsible for delivering market and macroeconomic insights, as well as strategic asset allocation.



Davide Andalaro, CFA
Vice President,
Senior Market and Portfolio Strategist

Davide is responsible for analyzing macroeconomic dynamics and developing timely market views across different asset classes.



Maria Li, CFA
Vice President,
Senior Market Strategist

Maria is responsible for analyzing macroeconomic trends and financial market data to develop strategic asset class views. She delivers market insights to clients, guiding effective and informed investment decisions.



Wendy Lin
Vice President,
Senior Market Strategist

Wendy is responsible for helping clients contextualize the macro and market environment, and offering timely implementation ideas. Her areas of expertise include analyzing equity styles, valuation, and US pension trends.



Theodore Enders, CFA
Managing Director,
Global Head of Strategic Advisory Solutions

Theodore is the global head of Strategic Advisory Solutions, which delivers Goldman Sachs Asset Management's perspectives on global markets, strategic asset allocation, and innovative business practices.

Source: Goldman Sachs Asset Management.

Glossary

Equities

The **DAX Index** is a free-float adjusted market capitalization index that represents the 30 largest German companies that trade on the Frankfurt Exchange.

The **FTSE 100 Index** represents the 100 top companies by market capitalization listed on the London Stock Exchange.

The **Russell 3000 Index** represents the largest 3,000 US companies by market capitalization, representing approximately 98% of the investable US equity market and a barometer of the broad US equity market.

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.

Fixed Income

The **Bloomberg Barclays 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 **US Treasury Bond** 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.

The **10-Year Constant Maturity US Treasury Index** is an index published by the Federal Reserve Board that represents the average yield of a range of Treasury securities, adjusted to the equivalent of a 10-Year maturity Treasury.

Other

Basis points (bps) refers to a unit represented by one hundredth of one percent.

Beta refers to the tendency of a security's returns to respond to swings in the market.

Bank of England (BoE) refers to the UK central bank. The BoE's main task is to maintain low and stable inflation, as well as support the government's economic goals for growth and employment.

Bank of Japan (BoJ) refers to the Japanese central bank. The BoJ's main task is to maintain price stability.

Cyclically Adjusted Price-to-Earnings (CAPE) ratio is a valuation measure usually applied to the broad equity market, that uses inflation-adjusted per-share earnings over a 10-year period, smoothing out real earnings to eliminate fluctuations in net income caused by variations in profit margins over a typical business cycle.

Capital Expenditure (capex) refers to funds used by a firm to maintain, upgrade, or acquire physical assets.

Compound Annual Growth Rate (CAGR) refers to the annualized average rate of growth of an investment over a given time period, assuming reinvested profits.

Core fixed income refers to investment grade fixed income that are held for risk management in a portfolio.

Correlation is a statistic that measures the degree to which two securities move in relation to each other.

Cyclical refers to an asset whose performance generally follows the business cycle.

Consumer Price Index (CPI) refers to the average change over time in the prices paid by consumers for a market basket of goods and services.

Default rate refers to the percent of outstanding loans that are left unpaid by the borrower and declared to be in default.

European Central Bank (ECB) refers to the central bank of the 19 European Union countries which have adopted the euro. The ECB's main task is to maintain price stability in the euro area and so preserve the purchasing power of the single currency.

The **Federal Reserve Board (Fed)** refers to the US central bank, an independent non-governmental agency in charge of conducting monetary policy through open market operations or setting interest rates.

Global Financial Crisis (GFC) refers to the financial crisis of 2008.

Gross Domestic Product (GDP) is the value of finished goods and services produced within a country's borders over one year.

LHS refers to the left-hand side.

Market capitalization refers to the total dollar market value of a publicly traded company's outstanding shares.

Nonfarm payrolls refers to the number of US workers in the economy, excluding proprietors, private household employees, unpaid volunteers, farm employees, and the unincorporated self-employed.

Percentage point (pp) is a unit for the arithmetic difference between two percentage values.

Personal Consumption Expenditure (PCE) refers to the measure of prices that people in the US, or those buying on their behalf, pay for goods and services.

Private asset refers to an equity or debt investment that is not accessible via public markets, including private equity, private credit, and real estate.

Private credit refers to non-bank lending that is not issued or traded in public markets.

Private equity (PE) refers to investments in the equity or debt of companies that are either not listed on public exchanges or are taken private shortly after they are acquired.

Public credit refers to non-investment grade bonds that are traded in public markets, including high yield bonds and bank loans.

Public equity refers to equity securities that are investable via public markets.

R-squared (R²) is a measure of the percentage of a variable's movements that can be explained by movements in another variable, and can be calculated as the square of the correlation between the two variables.

A **US recession** is defined by the NBER as a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales.

RHS refers to the right-hand side.

Risk asset refers to assets that carry a degree of price volatility.

Risk-on (risk-off) environment refers to a positive (negative) investment sentiment toward market conditions, leading investors to have a greater (smaller) appetite for investing in risky assets.

Sharpe ratio is a measure of risk-adjusted return. A higher Sharpe ratio suggests an asset may have more attractive risk-adjusted returns.

Spread is the difference between two prices or interest rates.

Standard deviation is defined as a measure of the dispersion of a set of data from its mean.

Yield refers to the earnings generated and realized on an investment over a particular period of time.

Volatility is a measure of variation of a financial instrument's price, often measured by standard deviation.

Z-score refers to a standardized measure for the number of standard deviations from the mean.

Risk Disclosures

All investments contain risk and may lose value.

Investors should also consider some of the potential risks of alternative investments: Alternative Strategies. 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 experience. 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. Leverage. 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. Counterparty risk. 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. Liquidity risk. 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. Valuation risk. 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 any investment decision.

Private equity investments are speculative, highly illiquid, involve a high degree of risk, have high fees and expenses that could reduce returns, and subject to the possibility of partial or total loss of capital. They are, therefore, intended for experienced and sophisticated long-term investors who can accept such risks.

Equity securities are more volatile than fixed income securities and subject to greater risks. Small and mid-sized company stocks involve greater risks than those customarily associated with larger companies.

Bonds are subject to interest rate, price and credit risks. Prices tend to be inversely affected by changes in interest rates.

International securities entail special risks such as currency, political, economic, and market risks.

Emerging markets securities may be less liquid and more volatile and are subject to a number of additional risks, including but not limited to currency fluctuations and political instability.

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

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. Credit risk is the risk that an issuer will default on payments of interest and principal. This risk is higher when investing in high yield bonds, also known as junk bonds, which have lower ratings and are subject to greater volatility. All fixed income investments may be worth less than their original cost upon redemption or maturity.

Although Treasuries are considered free from credit risk, they are subject to interest rate risk, which may cause the underlying value of the security to fluctuate.

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).

Concentration in infrastructure-related securities involves sector risk and concentration risk, particularly greater exposure to adverse economic, regulatory, political, legal, liquidity, and tax risks associated with MLPs and REITs.

Investments in master limited partnerships ("MLPs") are subject to certain risks, including risks related to limited control and limited rights to vote, potential conflicts of interest, cash flow risks, dilution risks, limited liquidity and risks related to the general partner's right to force sales at undesirable times or prices.

Investing in REITs involves certain unique risks in addition to those risks associated with investing in the real estate industry in general. REITs whose underlying properties are concentrated in a particular industry or geographic region are also subject to risks affecting such industries and regions. The securities of REITs involve greater risks than those associated with larger, more established companies and may be subject to more abrupt or erratic price movements because of interest rate changes, economic conditions and other factors.

Environmental, Social, and Governance ("ESG") strategies may take risks or eliminate exposures found in other strategies or broad market benchmarks that may cause performance to diverge from the performance of these other strategies or market benchmarks. ESG strategies will be subject to the risks associated with their underlying investments' asset classes. Further, the demand within certain markets or sectors that an ESG strategy targets may not develop as forecasted or may develop more slowly than anticipated.

There may be additional risks that are not currently foreseen or considered.

General Disclosures

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.

Page 6 Bottom Section Notes: Households/Consumers is a category that includes personal saving, mortgage, and non-mortgage debt. Nonfinancial Business includes corporate debt and interest expenses, debt to assets, and debt to GDP. Financial Business includes bank equity ratios, financial sector liabilities, leverage, and loan-to-deposit ratios. Government includes debt/GDP and deficit/GDP for federal, state, and local governments. Housing includes price-to-rent and price-to-income, house prices, mortgage spreads, lending standards, and credit scores. Commercial Real Estate includes commercial cap rates, commercial real estate prices, collateralized mortgage bond spreads, and lending standards. Consumer Credit includes credit card interest rates, personal loans, auto loan originations, credit card loans, and other consumer loans. Business Credit includes corporate debt spreads, commercial and industrial lending standards, and high yield debt issuance. Equity includes valuations, equity risk premiums, and volatility. Indicators are shown as percentiles relative to all available data, dating to 1990.

Page 23 Relative Asset Class Calendar-Year Performance Notes: 'Bank Loans' are represented by the Credit Suisse Leveraged Loan Index. 'Commodities' are represented by the S&P GSCI Commodity Index. 'Emerging Market (EM) Debt' is represented by the JPM EMBI Global Composite Index. 'Emerging Market (EM) Equity' is represented by the MSCI Emerging Markets Index. 'Hedge Funds' are represented by the HFRI Fund of Funds Index. 'High Yield' is represented by the Bloomberg Barclays Global High Yield Index. 'International Equity' is represented by the MSCI EAFE Index. 'International Real Estate' is represented by the S&P Developed ex-US Property Index. 'International Small Cap' is represented by the S&P Developed ex-US Small Cap Index. 'US Aggregate Bonds' are represented by the Bloomberg Barclays US Aggregate Bond Index. 'US Large Cap' is represented by the S&P 500 Index. 'US Municipal' is represented by the Bloomberg Barclays Municipal Bond Index. 'US Real Estate' is represented by the Dow Jones US Select Real Estate Securities Index. 'US Small Cap' is represented by the Russell 2000 Index.

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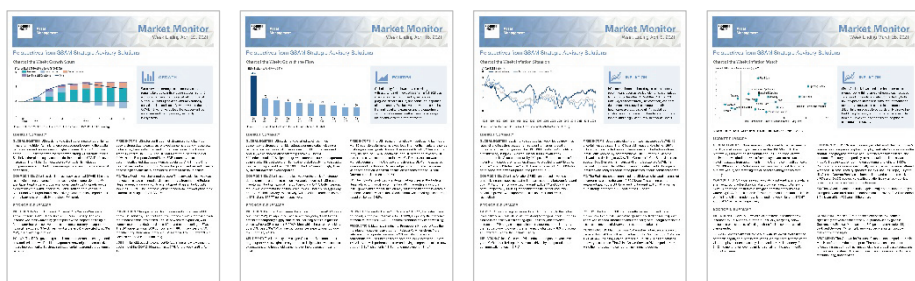
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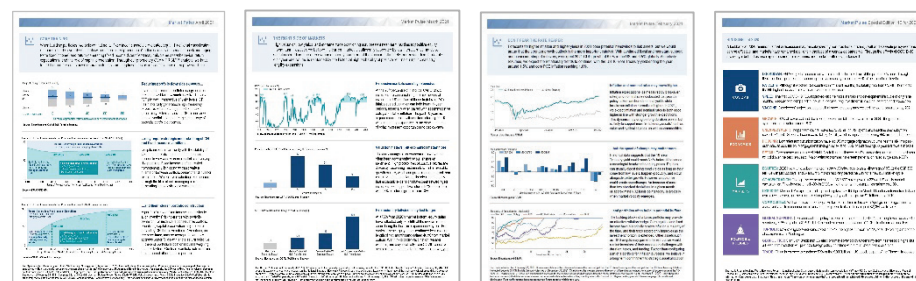
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Don't Fear the
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Hindsight is 2020

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For more information, contact us at StrategicAdvisorySolutions@gs.com.

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Market Know-How 2021: Edition 2



**Asset
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