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TOP of MIND

US OUTPERFORMANCE: AT A TURNING POINT?

The US has had an exceptional decade. US growth and equities have outperformed, and the Dollar's global role remains unchallenged. Whether this outperformance can continue over the coming decade is Top of Mind. We ask Bridgewater's former Chief Investment Strategist Rebecca Patterson, the BlackRock Investment Institute's Jean Boivin, and GS GIR's Jan Hatzius and strategists. While Patterson expects AI and tech more broadly to lead to continued US equity outperformance, Boivin sees this as more questionable than in the past given several "mega forces" that will drive equity performance, only some of which will benefit the US. Our equity strategists see reasons for both US outperformance (firms' focus on shareholder value creation) and underperformance (a concentrated market, already high equity ownership), while Hatzius is relatively optimistic on longer-term US growth due to AI and more daunting demographics elsewhere. But all seem to agree that the Dollar looks set to continue defying expectations of sharp depreciation and de-Dollarization ahead.

Historically, the pendulum of outperformance has swung between US and non-US equities every decade or so… Despite the historical evidence, I expect another decade of US outperformance, led by tech and generative artificial intelligence specifically.

- Rebecca Patterson

[Shifting] mega forces could weigh on US asset returns… So, while US assets should still outperform on a strategic horizon, that's a riskier bet to make than it used to be.

- Jean Boivin

A lot of this will come down to demographics… So, over the longer term the US probably has somewhat better growth prospects among developed markets.

- Jan Hatzius

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Macro news and views

We provide a brief snapshot on the most important economies for the global markets

US

Latest GS proprietary datapoints/major changes in views

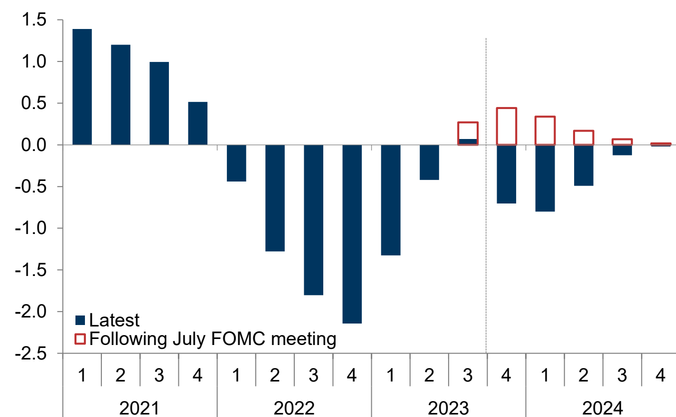
- We no longer expect a federal gov't shutdown this year given new geopolitical risks and the election of a House Speaker.
- We recently lowered our Dec 2024 core CPI forecast to 2.7% yoy (from 2.9%) reflecting an expected slowdown in car insurance price increases.

Datapoints/trends we're focused on

- Higher rate regime, which we expect will increase small businesses' interest burden and weigh on housing turnover, though we continue to think that higher rates will be a manageable headwind to growth, not a recessionary shock.
- Fed policy; we continue to expect the Fed to remain on hold at 5.25-5.5%, with the first rate cut coming only in 4Q24.

Higher rates: a prolonged but manageable growth drag

Real US GDP growth impulse from GS financial conditions index, pp



Source: Goldman Sachs GIR.

Japan

Latest GS proprietary datapoints/major changes in views

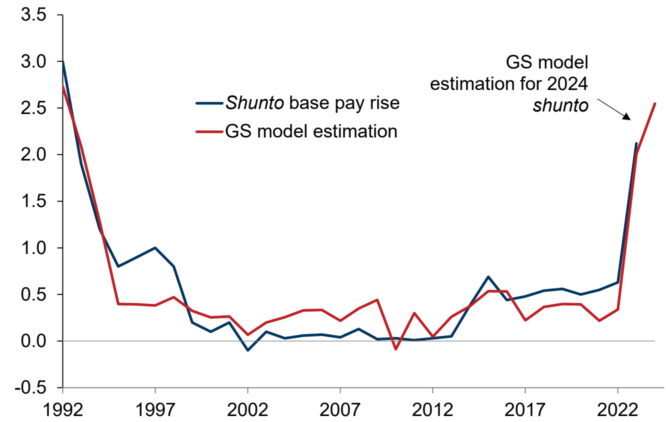
- No major changes in views.

Datapoints/trends we're focused on

- BoJ policy; we expect an exit from yield curve control in Apr 24, when *shunto* negotiations confirm wage growth sustainability.
- Japanese inflation; we expect core CPI inflation to remain >2% throughout 2023/24, implying a strong negotiating stance by unions. As such, we think 2024 *shunto* wage negotiations will result in a 2.5% wage hike, higher than in 2023 (2.1%).
- Japanese post-pandemic consumption recovery, which has slowed in 2023, and may not recover to pre-pandemic levels given structural changes in consumer behavior.

Japan: *shunto* base pay still rising

Shunto base pay rise, % change, yoy



Source: JTUC-RENGO, Keidanren, Goldman Sachs GIR.

Europe

Latest GS proprietary datapoints/major changes in views

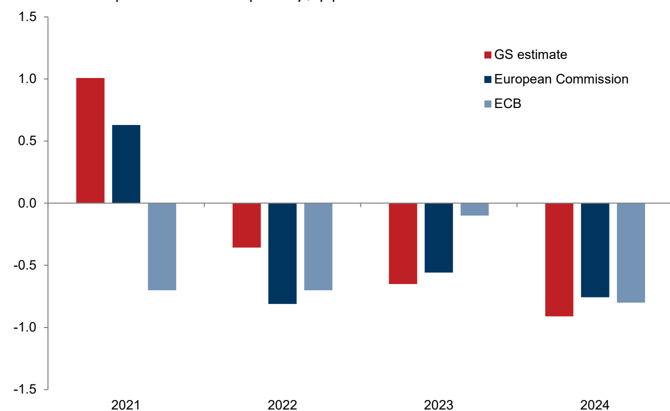
- No major changes in views.

Datapoints/trends we're focused on

- Euro area growth, which we expect to recover to a 1.25-1.5% pace in 2024, though tighter fiscal policy, especially in Italy, and the Middle East conflict pose downside risks to growth.
- ECB policy; we expect the ECB to remain on hold at 4.00% until the first rate cut in 4Q24, and to limit PEPP reinvestments beginning in 2Q24 to €10bn per month before stopping all reinvestments starting from 3Q24.
- BoE policy; we expect the BoE to remain on hold at 5.25% until the first rate cut in 3Q24 given our forecast for subdued UK growth and continued disinflation.

A building fiscal drag in Europe

Growth impact of fiscal policy, pp



Source: European Commission, ECB, Goldman Sachs GIR.

Emerging Markets (EM)

Latest GS proprietary datapoints/major changes in views

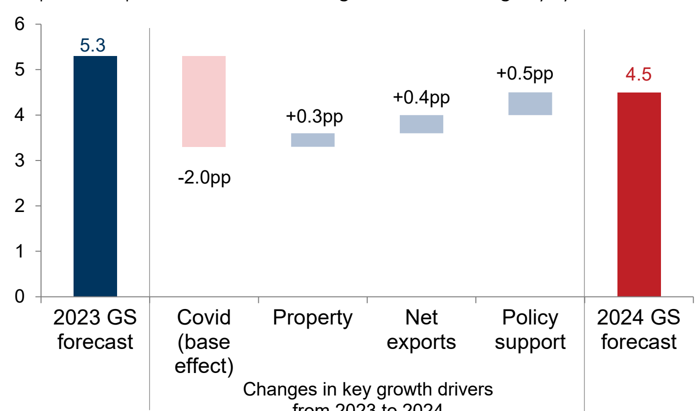
- We recently raised our 4Q23 China sequential growth forecast to 5.5% qoq sa ann. (from 5%) reflecting lagged effects of recent policy easing and solid October high-frequency data, although we think policy easing is still needed to support growth given lingering risks in the economy.

Datapoints/trends we're focused on

- Asia growth; we continue to see evidence that goods production and trade, at least in tech products, are bottoming out across Asia, which should support regional growth.
- India's development, which faces tailwinds from labor force growth, regulatory/tax reforms, & supply chain diversification.

China growth: continued policy easing needed

Impulse-implied China real GDP growth, % change, yoy



Source: Goldman Sachs GIR.

US outperformance: at a turning point?

The US has had an exceptional decade. US equities have outperformed, with the S&P 500 generating annualized total returns of 13% versus 8% for the STOXX 600, 12% for the TOPIX, and 6% for the MXAPJ since 2013. The Dollar's role as the global trading and reserve currency has remained unchallenged, with it accounting for around 60% of global reserves today. And US GDP growth has exceeded that of other developed markets (DMs) in the last decade and has outperformed growth in many other economies this year. But this outperformance has begun to show some cracks, with US equities in particular selling off over the past month. Whether the US economic and asset outperformance of the past decade can continue over the next one is Top of Mind.

We first ask several economy and market watchers whether the US can continue outperforming. When it comes to equities, Rebecca Patterson, former Chief Investment Strategist at Bridgewater Associates, says yes. She expects another decade of US equity outperformance, led by generative artificial intelligence (gen AI) and tech more broadly. She argues that the broad adoption of gen AI could significantly lift US productivity and, in turn, domestic growth—the dominant driver of equity markets over the long term. And with the decade ahead likely to be one of slower global growth, she believes investors will need organic growers like tech to support equity returns—and this should benefit the US given its relatively large exposure to such firms. Despite a significant rise in US tech stocks already, Patterson doesn't believe the upside from gen AI has been fully priced in, pointing out that structural changes in the economy tend to be reflected in asset prices over several years.

GS US equity strategists David Kostin and Lily Calcagnini also believe that US equities can continue to outperform over the longer term despite their view that stretched US valuations will impede outperformance over the coming year. They find that the biggest driver of superior US equity returns over the last decade was management focus on shareholder value creation, though a larger exposure to tech companies and greater US index dynamism also played important roles. These factors, they say, should keep US stocks outperforming over the longer run and may lead investors to regret their decision to allocate more money toward non-US vs. US equities this year.

GS Chief Economist and Head of Global Investment Research Jan Hatzius is similarly optimistic on the US growth front. Although he expects a slowdown in US growth in Q4, he thinks that weakness will prove short-lived. And, over the longer term, he believes that the US is well-positioned for a boost in potential growth from AI advances and argues that the US' demographic situation, while challenging, looks more favorable than that of other major economies.

With many observers concerned about the implications of the US' deteriorating fiscal situation for US growth and assets as interest expense has risen, GS Chief Political Economist Alec Phillips then digs into how worried we should be. He argues that rather than higher interest expense, the US' main fiscal challenge is its large primary deficit. This, he says, could compel tighter fiscal policy, which could weigh on growth—but none of that is likely for at least the next couple of years.

Jean Boivin, Head of the BlackRock Investment Institute, is somewhat less optimistic about the outlook for US equities. While he expects continued US outperformance on a strategic horizon, he says that's a "riskier bet to make than it used to be," arguing that structural "mega forces"—rather than cyclical performance—are set to drive equity performance ahead. While he expects some of these mega forces, like AI and shifts in the financial architecture, to benefit the US more than other places, he argues that others, such as shifts in geopolitics and demographic pressures could weigh on US equity returns.

And GS Chief Global Equity Strategist Peter Oppenheimer sees reasons to believe that US equities—which, he points out, have underperformed for long stretches in the past—may not continue to outperform to the same extent in the coming decade as they have in the last decade. While he recognizes that the US remains at the cutting edge of technological innovation, he notes that the US equity market is now very concentrated—with its exceptionalism owing to a handful of large companies—and increased competition from other asset classes in the current high-rate environment could dissuade US households from adding to already high equity ownership.

GS Co-head of CEEMEA Economics Kevin Daly agrees that US outperformance over the last decade will be difficult to repeat. He expects emerging markets (EM) to continue growing faster than the US over the next decade, which he argues should eventually translate into stronger EM equity earnings growth. And he believes that relatively stretched US equity and Dollar valuations create a high bar for further asset outperformance.

That said, our market watchers generally believe that the Dollar is set to continue to defy expectations of sharp depreciation and de-Dollarization. Cyclically, Kamakshya Trivedi, GS Head of Global FX, Rates, and EM Strategy, argues that the resilient US growth picture Hatzius paints and a lack of clear challengers should keep the Dollar in a shallow depreciation regime. While Boivin isn't particularly bullish the Dollar as he believes the support coming from higher rates has largely run its course, he also expects a sideways or only slightly weaker Dollar from here. And structurally, Patterson and GS FX strategists Michael Cahill and Lexi Kanter agree that de-Dollarization likely isn't on the horizon given the lack of credible Dollar alternatives.

So how should investors be positioning for the next decade? Patterson argues for at least a slight US equity overweight on a strategic horizon and also favors US equities tactically even as she remains cautious about near-term US equity returns, preferring large cap stocks over small as well as defensives, energy, defense, and tech. Oppenheimer argues that investors should focus more on diversification than on regional exceptionalism. And Boivin sees value in the equities and other asset classes like private credit that are most leveraged to the mega forces he expects to increasingly shape the world.

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Interview with Rebecca Patterson

Rebecca Patterson is former Chief Investment Strategist at Bridgewater Associates. Below, she argues that another decade of US equity outperformance lies ahead, largely led by tech.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.

Allison Nathan: After a decade of US equity outperformance, is the pendulum now set to swing to a period of US underperformance?

Rebecca Patterson: A continuation of US equity outperformance over the next decade is very plausible. That's a big statement because, historically, the pendulum of outperformance has swung between US and non-US equities every decade or so. For example, in the late 1990s, similar to today, US markets were on a tear, particularly tech stocks. They then became highly valued, and arguably over-owned. Eventually the Dot Com Bubble burst, sparking a sharp equity price correction. At the same time, China joined the World Trade Organization (WTO), and the ensuing improvement in investor sentiment, along with low valuations, lack of ownership, and change in growth dynamics, pulled capital into China and the broader BRICs, leading to a decade of BRIC outperformance. But by 2008, BRIC equity valuations had risen, and they too became over-owned. Simultaneously, the policy response to the Global Financial Crisis kicked off a decade of subdued growth, low inflation, and rock-bottom interest rates known as the Great Moderation. In that regime, investors sought companies that didn't need a cyclical lift and instead grew organically, which included tech. That benefitted the US given its relatively large exposure to such companies, so the 2010s became another decade of US outperformance, with US equities outperforming in 11 of the last 13 years. Despite the historical evidence, I expect another decade of US outperformance, led by tech and generative artificial intelligence (gen AI) specifically.

Allison Nathan: So, is your expectation of continued US outperformance all about gen AI?

Rebecca Patterson: Gen AI has a lot to do with it. But the broader point boils down to what drives equity markets. Over the short term, domestic and global multiples play an outsized role in driving equity markets, but over a longer 10-15 year period, domestic growth is the dominant driver, accounting for around 40% of equity returns according to a 2011 study by Cliff Asness, Roni Israelov, and John Liew. And economic growth, at its most basic, is a function of labor and productivity. With less help from labor as demographics deteriorate and the working age population shrinks in many countries, growth will depend more on productivity, which the broad adoption of gen AI over the next decade has the potential to significantly lift—perhaps like what we saw following the broad adoption of the personal computer. The decade ahead will also likely be one of slower global growth, putting us back in a regime in which investors will need organic growers like tech to support equity returns. And tech's weight in the S&P 500 is more than double that of many non-US equity indices. So, gen AI, but really tech more broadly, will underpin continued US outperformance through actual growth as well as its index representation.

Allison Nathan: But won't the productivity benefits/boosts from gen AI be widely dispersed across economies?

Rebecca Patterson: The unique nature of the US' tech infrastructure will allow it to benefit from gen AI more than other countries. The US has a critical mass in tech companies—the Magnificent Seven of Tesla, Meta, Nvidia, Apple, Microsoft, Alphabet, and Amazon are located here, and they have the cash flow to continue investing and growing. And the US government encourages this investment, unlike countries like China that are more skeptical about large, successful private tech companies. The US' strong secondary education system will also likely produce a labor force that is well-equipped to harness gen AI and propel it forward.

Allison Nathan: Those Magnificent Seven companies—which account for a significant share of the US equity market—have risen substantially in value this year already. Doesn't that limit further US upside?

Rebecca Patterson: While those companies have rallied even as interest rates have risen, which constitutes a break in the normal relationship between tech stocks and yields, they did so from a relatively low base given that the NASDAQ fell by ~30% last year. More broadly, I would underscore the importance of timeframes. Structural trends don't occur in a straight line—I can be right on my 10-year view that AI and tech will help the US outperform, and pockets of underperformance can still occur. Remember that multiples play a larger role driving equity markets over the shorter term, which means that the US can underperform for brief periods, as it did earlier this year vs. China when a reversal of its zero-Covid policy drove a significant rise in multiples there. Periods of hype and underperformance will happen.

Allison Nathan: Given all the recent focus on gen AI, hasn't much of the upside already been priced in?

Rebecca Patterson: I don't believe so. US equity valuations are relatively high, tech valuations even higher, and ownership of US stocks and bonds has increased over the last decade. These factors have historically led to underperformance, so there's reason to be cautious in the near term. That said, history has shown that structural changes in the economy tend to be priced in over many years. In 1956, President Eisenhower passed the Federal Highway Act, kicking off a decade of highway construction across America. And though an initial pop in assets occurred, select industrial and transport stocks continued outperforming the broader market for 3-5 years after the Act's passage. Similarly, in the 1980s, when President Reagan significantly increased military and defense spending, the related stocks outperformed the market for several years. So, even though a lot of good news may be discounted in US tech stocks today, if gen AI delivers on its massive productivity potential, equities could rise for years to come. And it won't just be tech stocks—the broad dissemination of generative AI could affect every industry.

Allison Nathan: If longer-term equity outperformance owes largely to growth, aren't emerging market (EM) economies set to grow faster than the US economy, suggesting US underperformance ahead?

Rebecca Patterson: Even though growth is the single most important driver of long-term equity returns, it's not the *only* driver. EMs outgrew the US over the last decade, yet EM equities underperformed US equities as volatility and policy uncertainty in China, geopolitical tensions, etc. limited their attractiveness. And going forward, it's difficult to identify where the growth boost across EMs might come from. India is often mentioned in this context. But even if India rises on the back of its demographic dividend and ongoing reforms and attracts a growing amount of capital over the next decade, it may not be enough to lift all BRICs the way that China joining the WTO did.

I'd also add that I often look at the world through a currency lens, which is a less-discussed factor that could be important for US outperformance, both structurally and cyclically. It's gone largely unnoticed that the relationship between oil and the Dollar has structurally changed. In 2017, the US became a net exporter of natural gas, and in 2019 a net exporter of crude oil. So, the Dollar has become a petrocurrency, meaning that when energy prices rise, the US' terms of trade improve, which, all else equal, supports the Dollar. Over the next decade, plenty of EMs will grow faster than the US, but if the Dollar appreciates, especially if oil prices are rising, some EM energy importers may suffer as they grapple with higher import costs and weaker local currencies, leading to a stagflationary pressure.

The structural currency factor is related to US capital flows. Currencies are about the balance of payments; that is, trade and capital flows. The US tends to run a current account deficit, so it needs to attract capital to keep the Dollar supported. Historically, that capital has flowed primarily from net foreign purchases of US stocks and bonds and, to a lesser extent, foreign direct investment. But the type of capital flowing into the US has changed—private equity has more than doubled in assets under management over the last decade to around $5tn, and the US, and in turn the Dollar, dominates that space. That capital is relatively sticky given that gaining access to the best managers and earning alpha requires constantly committing new dollars to longer-term private equity investments. This has created a different type of support for the Dollar that's more structural. And in a strong Dollar environment, the US tends to outperform, especially vs. EMs.

Allison Nathan: So, de-Dollarization isn't on the horizon?

Rebecca Patterson: Probably not. It makes sense that after the US and several other countries sanctioned Russia's FX reserves in the wake of its invasion of Ukraine there'd be worries that this weaponization of US financial markets, and the Dollar in particular, could lead other countries to reduce their US exposure. And some countries have begun to invoice and trade in non-Dollar currencies. But the effect on the Dollar so far has been de minimis—according to the Bank for International Settlements, 88% of global currency transactions involve the Dollar, and that figure has remained largely unchanged for the last decade. Some countries may talk about moving away from the Dollar, and perhaps smaller currencies will replace it at the margin, but not enough to truly undermine it.

Allison Nathan: Even if structural drivers lead US equities to continue outperforming over the long term, could cyclical drivers lead to near-term underperformance?

Rebecca Patterson: Near term, I am cautious on US equities because a lot of optimism is already priced in. A US soft landing is now the prevailing view, and consensus earnings per share (EPS) growth estimates are near 12% for next year. While that could happen, risks are biased toward some level of macro disappointment, skewing market risks to the downside. That said, US total returns in downturns tend to be as good as or even better than in overseas markets, partly because American investors have a home bias—they prefer to own large US companies amid a flight to liquidity and safety, which also tends to benefit the Dollar. So, even if US equities decline in the near term, they're likely to still post higher returns vs. other markets.

Allison Nathan: What developments, if any, would give you pause that US outperformance can continue?

Rebecca Patterson: I see several risks to US outperformance. One, a possible slowdown in funding and interest in AI, or what some would call an "AI winter." Two, demographic challenges. As US baby boomers retire, attracting overseas workers will be increasingly important, but neither US political party seems intent on increasing immigration. Three, the US' precarious fiscal situation. A budget deficit as large as today's has never occurred outside of a deep recession or a major war. And with policymakers unable to agree on how to rein in spending or raise taxes, fiscal policy will be increasingly constrained, interest payments will eat up more of the budget, and more sovereign credit rating downgrades could lie ahead, all of which could affect investor sentiment around owning US assets and weigh on the US' growth outlook. And four, increased policy uncertainty and government dysfunction. The 2024 election poses existential risks in terms of the potential for significant policy changes and civil unrest. And at a certain point those risks could be large enough for investors to decide to reduce their exposure to US assets. While investors may not pull substantial money out given the lack of an alternative safe haven, I'm definitely concerned about this risk.

Allison Nathan: So, how should investors be positioned?

Rebecca Patterson: Strategically, investors should be at least benchmark weight to the US, and probably slightly overweight, given that US equities will likely continue outperforming over the next decade. While I am more cautious about near-term US equity returns, tactically, I would still favor US equities over non-US equities. Specifically, I prefer US large over small cap, as large cap stocks tend to perform better amid slower growth. I also favor having a decent allocation to defensives, including healthcare, and energy given OPEC's desire to put a floor under oil prices and as a hedge against geopolitical risks, defense, which is one of the few areas of bipartisan consensus, and tech because, again, organic growers with a large cash cushion should help support equity returns amid slower global growth. Beyond equities, I like owning cash given its high yield and the benefit of having liquidity to take advantage of potential opportunities. And I would be tiptoeing into longer-duration bonds. While yields aren't likely to decline by much in the near term given the supply and demand dynamics, yields remaining at current levels would still mean a decent return on bonds.

US preeminence: a ROE story

David Kostin and Lily Calcagnini explore the drivers of US equity market outperformance, which they find should keep US stocks outperforming over the longer run

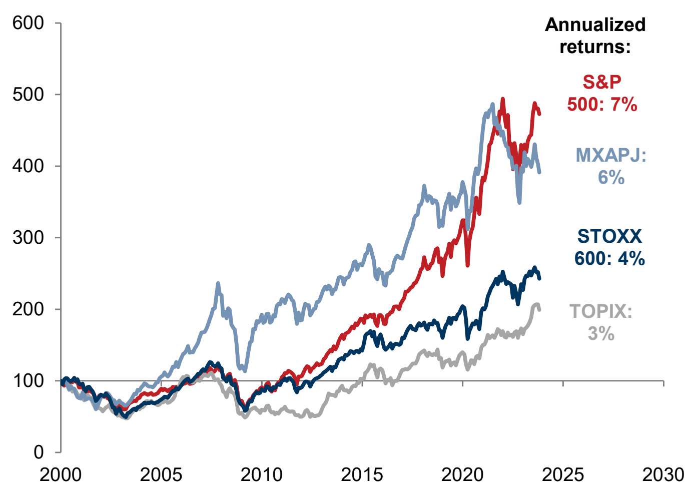
Investors' allocation decisions between US and non-US stocks this year reflect the triumph of "hope over experience." Despite a track record of US equity outperformance, investors have bought net $59bn of non-US equity mutual funds and ETFs vs. $5bn of US equity mutual funds and ETFs year-to-date. While tactical opportunities exist in global equity markets, corporate fundamentals and management focus on shareholder value creation suggest that over time investors may regret this reallocation decision.

An exceptional US equity track record

The long-term performance of US equities has been exceptional. Since 2000, the S&P 500 has generated an annualized total return of 7% compared to 4% for Europe (STOXX 600), 3% for Japan (TOPIX), and 6% for Asia ex-Japan (MXAPJ). Of the major indices, only the TOPIX has outpaced the S&P 500 year-to-date, returning 21% in local currency terms vs. 17% for the S&P 500, with the STOXX 600 returning a relatively modest 7% and the USD-based MXAPJ remaining flat. Across all regions except Europe, P/E expansion and higher NTM earnings have contributed to returns this year.

US stocks have outperformed global equities over the long term…

Indexed total return of global indices since 2000 in local currency terms



Source: FactSet, Goldman Sachs GIR.

…though investors have chased hope over experience this year

US and global equity fund flows, $bn

	Total assets	Flows YTD
U.S. equity		
Mutual funds	$3,606	$(153)
ETFs	4,912	158
Total	**$8,517**	**$5**
International equity		
Mutual funds	$4,251	$(99)
ETFs	2,214	158
Total	**$6,465**	**$59**

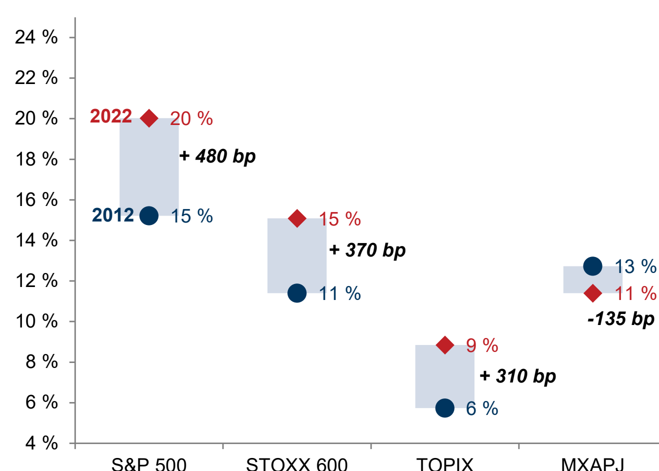
Source: EPFR, Goldman Sachs GIR.

A story of shareholder value creation

A focus on shareholder returns largely explains this superior US equity performance, with managements of US publicly-traded companies increasing returns for their shareholders during the past decade by a far greater amount than their counterparts in Europe, Japan, and broader Asia. Specifically, over the past decade, return on equity (ROE) for the S&P 500 increased by 480bp compared with just 370bp for the STOXX 600 and 310bp for the TOPIX, and *fell* by 135bp for the MXAPJ. And at the end of 2Q23, the trailing ROE for the S&P 500 index stood at 20.8%, ranking in the 98th percentile since 1975.

Increases in ROE have been greater in the US than in other markets over the last decade

10 year change in ROE, %



Source: FactSet, Goldman Sachs GIR.

The ROE expansion achieved by US companies during the last decade is merely an extension of their long-standing focus on increasing profitability. US companies have utilized a myriad of tools to increase shareholder returns. Higher leverage is one strong tailwind to US profitability that does not have an analogue in Europe. Aggregate leverage among S&P 500 companies has risen from 2.4x to 3x since 1980, adding more than 400bp to ROE in the process. By contrast, aggregate leverage in Europe has remained flat over the same period. Expanding margins, declining tax rates—the US has one of the lowest effective tax rates with the exception of some tax haven countries—and lower borrowing costs have also contributed to the increase in ROE in the US since 1980.

Sector composition and index dynamism help too

Explanations for the US stock market's outperformance also typically include sector composition, for good reason. The Information Technology sector accounts for 28% of the S&P 500 equity cap compared with 20% of the MXAPJ, 13% of the TOPIX, and just 7% of the MSCI Europe. That compositional difference benefits the S&P 500, as tech stocks have posted faster sales growth and, during the last 20 years, dramatically higher margins relative to other sectors.

Tech firms account for a much larger portion of the equity market in the US…

Index breakdown by Global Industry Classification Standard (GICS) sector, %

GICS sector	S&P 500	MSCI Europe	TOPIX	MXAPJ
Information Technology	**28 %**	7 %	13 %	20 %
Health Care	**13**	16	8	5
Financials	**13**	18	12	23
Consumer Discretionary	**10**	11	19	13
Industrials	**9**	3	7	8
Communication Services	**8**	15	24	7
Consumer Staples	**7**	12	7	5
Energy	**5**	7	1	4
Utilities	**2**	4	1	2
Real Estate	**2**	7	6	8
Materials	**2**	1	2	3
Total	**100 %**	100 %	100 %	100 %
Market cap ($tn)	**$37.1**	**$9.3**	**$2.8**	**$6.6**
Percent of AC World	**62 %**	**16 %**	**5 %**	**11 %**

Source: FactSet, Goldman Sachs GIR.

…and the seven largest stocks in the S&P 500 are tech companies

Top 10 stocks by index weight, %

S&P 500		STOXX 600		TOPIX		MXAPJ	
Company	**Weight**	**Company**	**Weight**	**Company**	**Weight**	**Company**	**Weight**
Apple Inc.	7.2%	Novo Nordisk	2.9%	Toyota Motor Corp.	4.5%	TSMC	6.3%
Microsoft Corp.	6.9%	Nestle	2.7%	Sony Group	2.8%	Tencent Holdings Ltd.	3.8%
Alphabet Inc.	4.3%	Roche Holding	2.3%	Keyence	2.4%	Samsung Electronics	3.7%
Amazon.com Inc.	3.3%	LVMH	1.9%	Mitsubishi	1.8%	Alibaba Group Holding Limited	2.5%
NVIDIA Corp.	3.0%	ASML Holding	1.8%	Nippon Telegraph and Telephone	1.7%	BHP Group Ltd	2.1%
Meta Platforms Inc.	2.0%	Novartis	1.7%	Mitsubishi	1.6%	Commonwealth Bank of Australia	1.6%
Tesla Inc.	1.7%	Astrazeneca	1.7%	Sumitomo Mitsui Financial Group	1.4%	AIA Group Limited	1.5%
Berkshire Hathaway	1.7%	Shell	1.7%	Hitachi,Ltd.	1.3%	Reliance Industries	1.3%
UnitedHealth Group	1.4%	SAP	1.6%	Tokyo Electron Ltd.	1.3%	Meituan Class B	1.1%
JPMorgan Chase	1.3%	HSBC Holdings	1.5%	Mitsui & Co.,Ltd	1.3%	CSL Limited	1.1%
Total	**32.7 %**		**19.9 %**		**20.0 %**		**24.9 %**

Source: Datastream, FactSet, compiled by Goldman Sachs GIR.

Greater index dynamism—or higher index constituent turnover—has also been offered as an explanation of US outperformance. The US' ecosystem of venture capital and private equity firms means that startups have the potential to scale quickly, eventually leading to IPOs followed by possible index inclusion. And as these new, faster-growing companies that typically have higher returns are included in the index and unprofitable companies with flagging returns fall out, the strength of the overall index should improve.

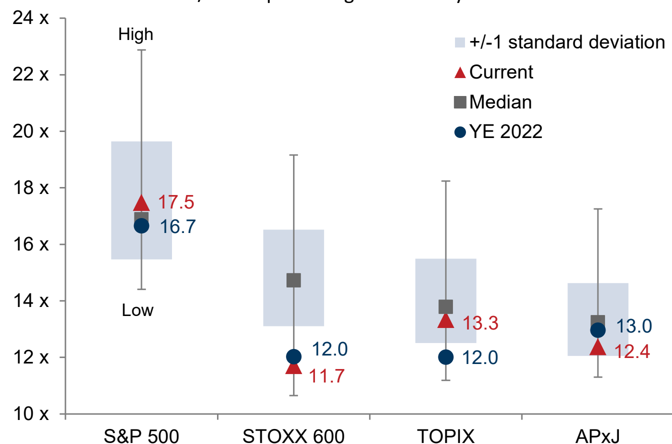
While we find that index turnover over the past 10 years has been similar between the US and Europe—32% of S&P 500 constituents were replaced by new stocks versus 35% of the STOXX 600—looking at when existing constituents first entered the index, we find that the US is indeed the most dynamic. 58% of the companies in the S&P 500 have been added since 2000, compared with 52% for the STOXX 600 and 42% for the TOPIX 500. In terms of index weight, stocks added to the S&P 500 since 2000 currently account for 44% of the index's market cap, compared with just 28% for the STOXX 600, though 82% of the current stocks in the MXAPJ were added since 2000 as a result of the inclusion of China A-shares after 2018. When viewed from this perspective, the returns of the US benchmark are driven by the larger market cap weight of its newer constituents as compared to other benchmarks, which have larger weights in legacy constituents.

Valuation impediments, but focus on ROE

Even if US equity returns benefit from management focus on ROE and profitability, sector composition, and greater index dynamism, to what extent are these benefits already priced in? The S&P 500 currently trades at a P/E multiple of 17x, ranking in the 77th percentile historically, while valuations of other equity markets are less stretched—the STOXX 600 trades at a 12x multiple (21st percentile), TOPIX at 13x (28th percentile), and MXAPJ at 12x (39th percentile). So, high starting valuations represent a potential impediment to strong forward returns. Indeed, our 12-month global equity forecasts suggest that the US will lag other regions, delivering 13% total returns over the next year. That said, provided US company managements continue to boost their ROE, as they have during the last decade, over the longer term US stocks should be well-positioned to continue to outperform their global peers.

S&P 500 P/E has expanded and remains well above other markets

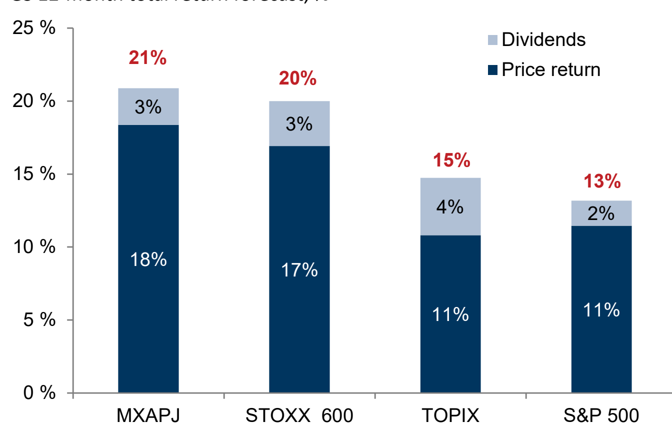
Distribution of NTM P/E multiple during the last 10 years



Source: FactSet, Goldman Sachs GIR.

US stocks are likely to underperform global equities over the next 12 months

GS 12-month total return forecast, %



Source: Goldman Sachs GIR.

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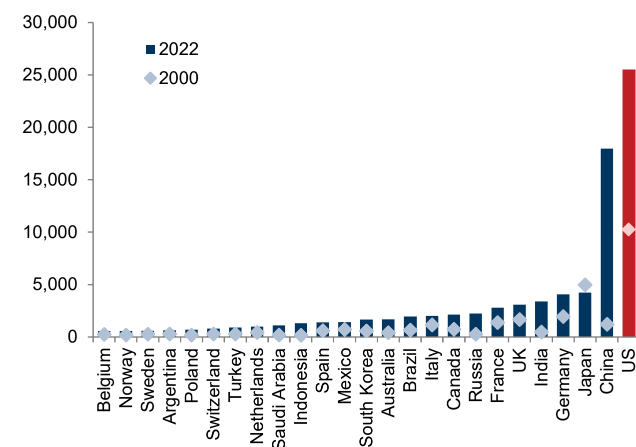
Email: *lily.calcagnini@gs.com* *Goldman Sachs & Co. LLC*
Tel: *212-357-5913*

US exceptionalism...

The US has long had the highest GDP in the world, and it has more than doubled since 2000, marking the second largest GDP growth after China...

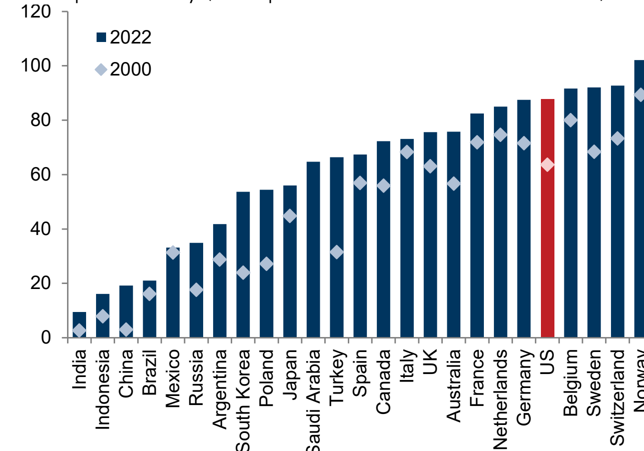
Nominal GDP, $bn



Source: The World Bank, Goldman Sachs GIR.

...as well as high levels of labor productivity, which has increased by close to 40% since 2000

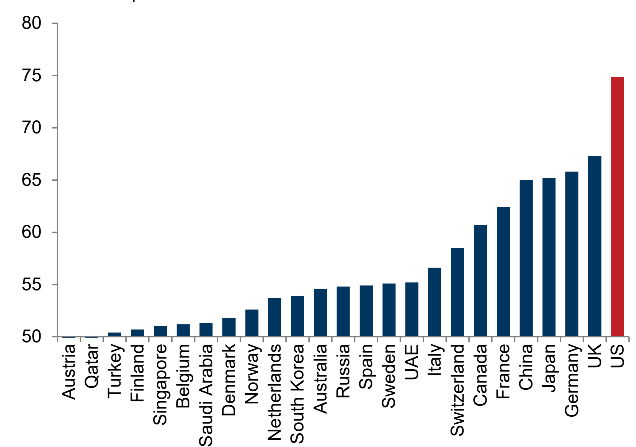
Labor productivity (GDP per hour worked in 2022 USD*)



**Converted using purchasing power parity.*
Source: Conference Board, Goldman Sachs GIR.

The US has a large global influence, ranking number one in global soft power...

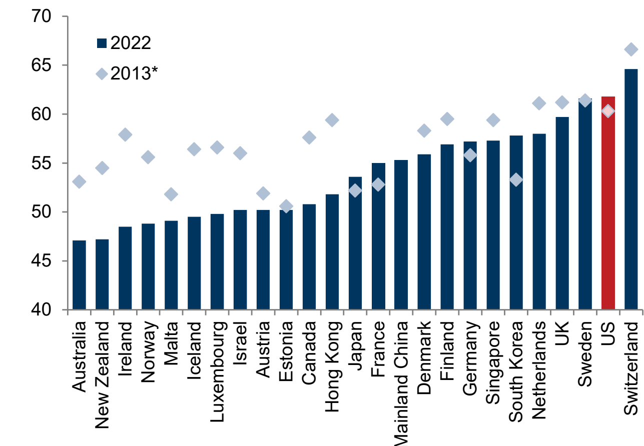
Global soft power index



Note: The Global Soft Power Index incorporates a broad range of measures to assess nations' presence, reputation, and impact on the world stage. Data for 2022.
Source: Brand Finance, Goldman Sachs GIR.

...and the US has a long history of innovation, ranking second in global innovation, up from number five in 2013

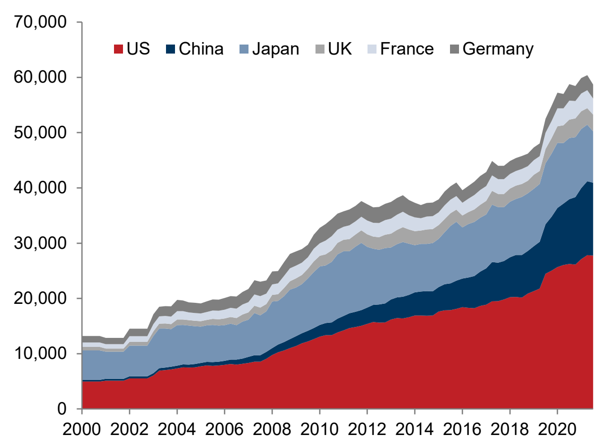
Global Innovation Index



**Index begins in 2013.*
Note: Indicates an economy's capacity for and success in innovation, measured by innovation input (elements of the economy that enable and facilitate innovative activities) and innovation output (the result of innovative activities within the economy).
Source: Global Innovation Index, Goldman Sachs GIR.

The US also has the largest sovereign bond market in the world and it has grown by over 450% since 2000...

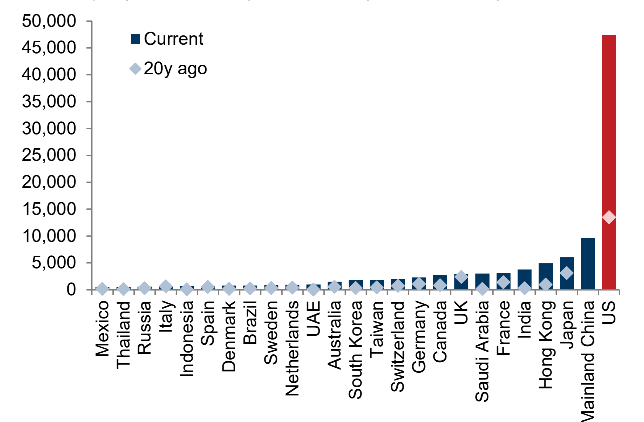
Government debt securities, $bn



Source: Haver Analytics, Goldman Sachs GIR.

...and the largest equity market capitalization in the world, which has grown by over 250% in the last 20 years and is now almost five times larger than that of the next largest market

Total equity market capitalization per economy, $bn

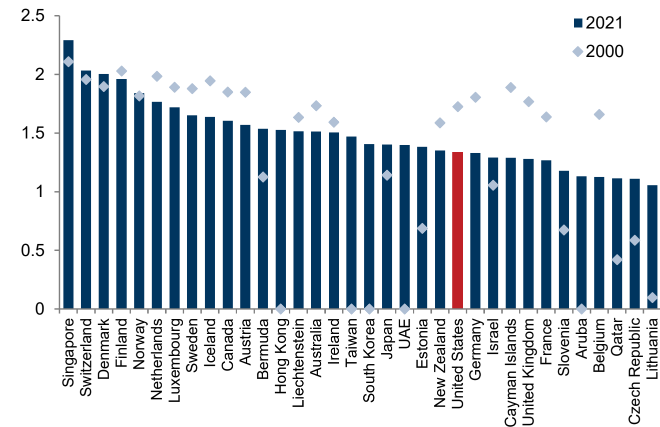


Source: Bloomberg, Goldman Sachs GIR.

...and non-exceptionalism in pics

The US ranks lower than many other developed economies on the effectiveness of its government...

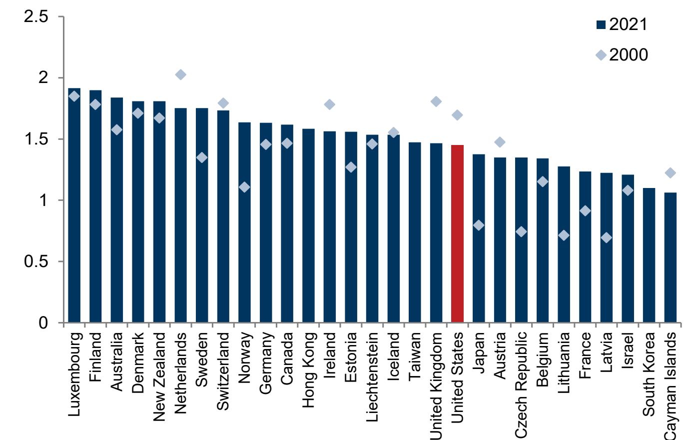
World Bank Government Effectiveness index



Note: Government Effectiveness captures perceptions of the quality of public services, quality of the civil service and degree of its independence from political pressures, quality of policy formulation and implementation, and credibility of the government's commitment to such policies. Estimate gives each economy's score on the aggregate indicator, in units of a standard normal distribution, i.e. ranging from ~ -2.5 (lower effectiveness) to 2.5 (higher effectiveness).
Source: World Bank Worldwide Governance Indicators, Goldman Sachs GIR.

...as well as the quality of its regulatory system, which has declined markedly relative to other economies in the past two decades

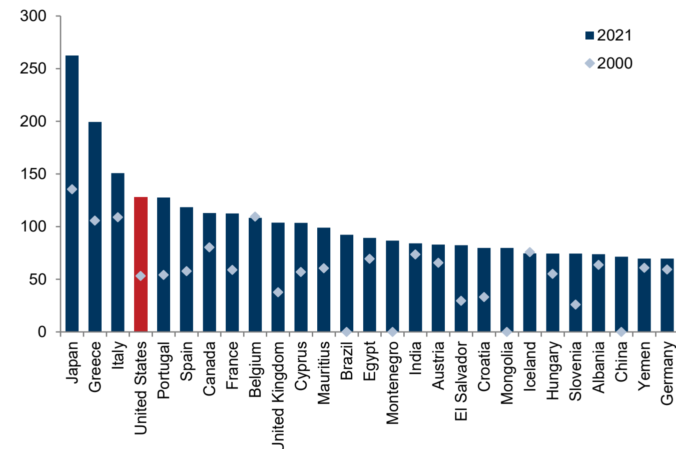
World Bank Regulatory Quality indicator



Note: Regulatory Quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. Estimate gives each economy's score on the aggregate indicator, in units of a standard normal distribution, i.e. ranging from ~ -2.5 (lower effectiveness) to 2.5 (higher effectiveness).
Source: World Bank Worldwide Governance Indicators, Goldman Sachs GIR.

The US has one of the highest debt/GDP ratios in the world, a notable deterioration from 2000 when it ranked in the middle

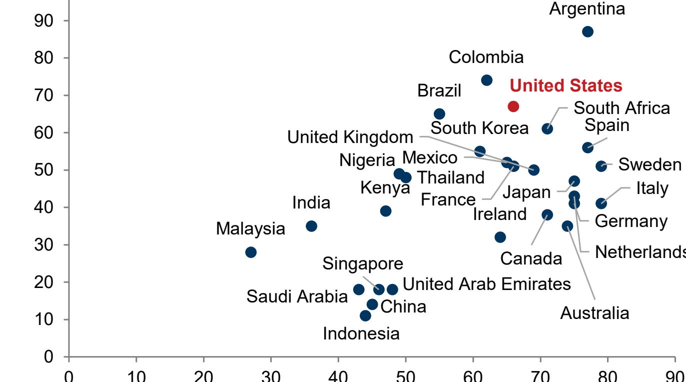
General government debt as a % of GDP



Source: IMF, Goldman Sachs GIR.

The US is more politically polarized than many other countries

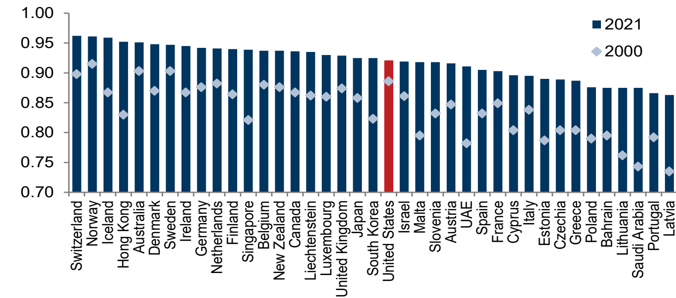
Division (x-axis, %) vs. Entrenchment (y-axis, %) scores



Note: The Division score is the % of respondents who believe their country is very/extremely divided on key societal issues; the Entrenchment score is the % of such respondents who do not believe their country will be able to work through its divisions; survey conducted Nov. 1-28, 2022; 1,150 +/- respondents per country.
Source: 2023 Edelman Trust Barometer, Goldman Sachs GIR.

The US ranks relatively low on measures of human development, a sharp deterioration from 2000 when it ranked in the top five of advanced economies

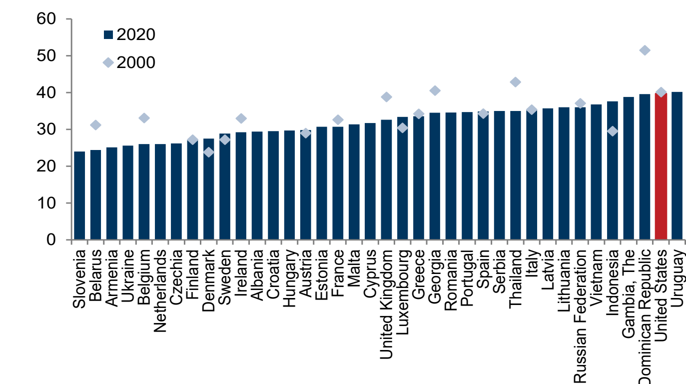
UN Human Development Index



Note: Index is the geometric mean of normalized indices for life expectancy at birth, years of schooling for adults aged 25+ and expected years of schooling for children of school-entering age, and gross national income per capita.
Source: United Nations Development Program, Goldman Sachs GIR.

The US has one of the highest levels of income inequality among advanced economies

Gini index



Note: A Gini index of zero represents perfect equality, while an index of 100 implies perfect inequality.
Source: World Bank, Goldman Sachs GIR.

Interview with Jean Boivin

Jean Boivin is Head of the BlackRock Investment Institute. Previously, he served as Deputy Governor of the Bank of Canada. Below, he argues that while US performance for the last few decades has been exceptional, the US' ability to sustain this outperformance in the coming decade is more questionable given a new macro regime marked by shifting "mega forces."

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.

Allison Nathan: Is it right to characterize US economic and asset performance over recent decades as exceptional?

Jean Boivin: Yes, for the last few decades, US performance has been exceptional. Extraordinary innovation in the US has allowed companies to reach massive scale in terms of market capitalization and number of employees. Few countries have been able to create a similar environment, which explains much of the outperformance of the US stock market in recent decades. This past outperformance isn't highly debatable.

Allison Nathan: Are the conditions that led to this outperformance set to continue?

Jean Boivin: That's more questionable. The business conditions that created the possibility for companies to innovate and develop at scale are still unmatched. But new conditions may start to dent this benefit given that we've recently entered a new macro regime marked by shifts in three mega forces that coincided with the pandemic. First, demographics in the US have started to become a binding constraint as an unprecedented wave of people are aging into retirement. Second, geopolitical fragmentation has driven a rewiring of globalization. And third, the transition to a low carbon economy is changing the global energy mix. These shifts mean that we're living in a world increasingly shaped by the supply side, which is very different from the 40 years prior to 2020 when production capacity had been increasing at a steady pace year after year. As a result, developed market (DM) central banks, and the Fed in particular, will not be in a position to always and systematically step in to limit the growth downside as has been the case in recent decades. These large structural shifts that have constrained the policy backdrop will entail two major macro implications: lower trend growth and a resetting of rates higher—both of which are already in train.

Allison Nathan: If these shifting structural forces are set to drive performance, is too much being made of the relative cyclical resilience of the US economy over the last 18 months?

Jean Boivin: In some ways, yes. Given these important structural shifts, the more appropriate lens to apply today is a structural lens, not a cyclical one, which is why I'm not particularly focused on the soft vs. hard landing debate. I suppose avoidance of a long-feared US recession so far could be seen as a positive, but the story of the US economy has been more of stagnation than resilience over the last 18 months, which have seen the weakest growth outside of a recession in history, and growth is set to cool further from here. Similarly, the labor market is tight, but it's not strong; it's being constrained by big demographic forces. So, growth and the macro environment more broadly are on a very weak track. Feeding the resiliency narrative is the fact that the pandemic created a huge hole that the economy has been digging out of, but if the pandemic had not occurred and we had instead just experienced the shifting structural forces that are at play, the narrative would have likely been very different today, focused on the structural downshift in growth. That focus is coming to the fore as the recovery from the pandemic increasingly moves into the rearview mirror.

"...large structural shifts that have constrained the policy backdrop will entail two major macro implications: lower trend growth and a resetting of rates higher."

Allison Nathan: Concerns about the US' fiscal outlook seem to be growing. How does that factor into your view of the world?

Jean Boivin: The deteriorating fiscal outlook is reflected in our view that longer-term rates will need to reset higher. Holding 10-year Treasuries is riskier today than during the Great Moderation era, partly because the macro environment itself is more volatile in a more supply-constrained world. But also contributing to this increased risk is uncertainty around how policymakers will grapple with high debts in the current high-rate environment. If 10-year yields remain around current levels for the foreseeable future, the US' debt servicing costs would rise to around 14 percent of the US budget, which is greater than the social security burden. The story is not that the level of debt is unsustainable, but that it will force some kind of adjustment, and it's unclear what form that adjustment will take—debt consolidation, greater tolerance of inflation, etc. The range of outcomes is wider than in the past, and investors will therefore demand higher compensation to hold long-term debt.

Allison Nathan: So, what does this all mean for the relative performance of US assets ahead?

Jean Boivin: On a five- to ten-year basis, I expect US assets to continue outperforming, though that's more uncertain than it was a couple decades ago. Again, this outperformance will likely be more a function of how the US and other countries navigate the mega forces than of the macro environment, which is likely to remain challenging, so not necessarily friendly to investors.

On the mega forces, the US remains extremely well-positioned for now given the flexibility of its economy, which will allow it to embrace and adapt to new developments in artificial intelligence (AI), structural shifts in the financial architecture

that are paving the way for the future of finance, and the Inflation Reduction Act in terms of the sheer scale of building that could take place—all of which suggests that the US should remain a very productive place over the near-to-medium term. These trends are a bigger story in the US than in Europe right now, which, in turn, suggests more asset opportunities within the US than in Europe, again, not because we're more positive about the macro—we expect relatively weak US growth in the near term, although I'm frankly not excited about Europe's growth prospects right now either—but because we see these mega forces playing out more in the US.

On the other hand, other mega forces could weigh on US asset returns. For example, shifting geopolitical dynamics could reduce the appeal of US-denominated assets as countries and regions realign. And demographic pressures could increasingly shift labor's share of income, which had been declining and a tailwind to US corporate profits over the last two decades, to a headwind as employees gain more bargaining power. So, while US assets should still outperform on a strategic horizon, that's a riskier bet to make than it used to be.

> "While US assets should still outperform on a strategic horizon, that's a riskier bet to make than it used to be."

Allison Nathan: Does your view that US assets will continue to outperform in the near term leave you constructive on the Dollar?

Jean Boivin: Not really. The recent large push into the Dollar as US long-term rate expectations have reset higher has likely largely run its course. Long-term yields have more room to rise from here, but that's because investors will demand more compensation for holding duration risk in their portfolios, as we discussed, not because investors will be piling into US assets. So, rates as a driver of a higher Dollar is likely waning, which is consistent with the Dollar moving sideways or perhaps a bit weaker from here.

Allison Nathan: What about on the performance of US assets relative to emerging market (EM) assets?

Jean Boivin: The mega forces we've been discussing are more favorable to the DM world than to the EM world, at least over the near term, so DM assets broadly are better positioned within that lens, even if the DM macro backdrop is relatively weak. That said, the resiliency of the EM world in the wake of the massive rate adjustment in the US and beyond, and the extent to which EM economies have been ahead of the curve in terms of reining in inflation and navigating to a position where some countries have already been able to cut their own rates, is remarkable. But, within the EM space, China's macro and asset performance has been a big downside surprise. Expectations that the domestic animal spirits in China would pick up following the pandemic reopening haven't really materialized. We used to say that the further away investors are from China, the more bearish they are about China, but that's now flipped; the closer investors are to China, the more bearish they are. We ourselves have downgraded our expectations of growth and asset returns to neutral in China over the course of this year.

Allison Nathan: How do the mega forces we've been discussing impact your approach to portfolio construction?

Jean Boivin: The bedrock of portfolio construction that includes exposure to a diversified mix of asset classes and regions shouldn't change, but it should evolve to look underneath the surface of these asset and regional allocations and consider the impact of these mega forces. AI, for example, is a theme that we are overweight on and have high conviction in, but gaining exposure to it will require tracing its implications across the entire economy and understanding its footprint across companies and sectors. Right now, the AI theme is largely playing out in tech, but it will eventually play out in healthcare, finance, etc. Another example is that in this more supply-constrained environment in which rates are persistently higher, the way the economy will be financed will shift, likely involving a larger role for private credit, which leaves us more structurally positive on private credit as an asset class than we would be purely based on the macro environment. These are just examples, but the general point is that these mega forces are not simply an asset class or regional story, and basic portfolio construction must be enhanced to recognize that.

> "The bedrock of portfolio construction that includes exposure to a diversified mix of asset classes and regions shouldn't change, but it should evolve to look underneath the surface of these asset and regional allocations and consider the impact of these mega forces."

Allison Nathan: So, how should investors be positioned right now?

Jean Boivin: Short-term government debt and cash remain attractive. That's not the most exciting portfolio construction story, but we're still adjusting to the higher rate environment, and we don't expect rates to come down anytime soon, which means that the income investors are earning on these assets will be persistent. This high income on relatively low-risk assets will remain a constraint on investing and deploying capital elsewhere. This is also consistent with our view that the macro backdrop will remain challenging, which leaves us more cautious on US and DM equities more broadly at the index level. That said, within the equity universe, we favor the equities most leveraged to the mega forces we've discussed, as well as other asset classes like private credit that stand to benefit from these structural shifts. So, investors should be applying a structural overlay to their overall portfolio to ensure that they don't miss out on the gains from these new and important mega forces that are increasingly driving economies and our world.

US: not so exceptional

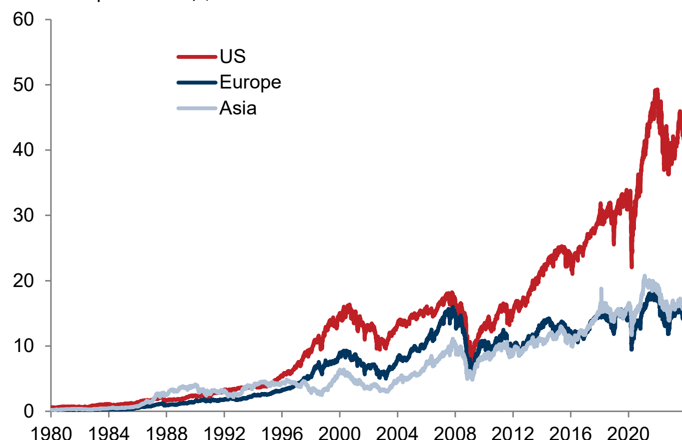
Peter Oppenheimer argues that US equity outperformance over the last decade likely won't be repeated over the next decade, underscoring the case for diversification

The US has many advantages relative to other parts of the world. In the years after the collapse of the Berlin Wall in 1989, US economic and political hegemony led to a relative decline in its risk premium. The US has a healthier demographic profile than Europe and Japan and benefits from the Dollar's role as the global reserve currency. It is a net energy exporter and can defend and feed itself while its vibrant and deep capital markets and high levels of innovation make it an attractive investment destination for foreign capital, which allows the US to run a budget and trade deficit.

For over a decade these qualities, coupled with falling interest rates and a growing technology sector, have contributed to significant growth in US equities relative to the size of its economy and to other markets, which has also led to a substantial relative valuation premium. However, US equities have not always outperformed, and their outperformance in the last decade is unlikely to be repeated over the next decade, suggesting that investors should focus less on regional exceptionalism and more on diversification ahead.

The US' market cap eclipses that of other major regions

Market capitalization, $tn



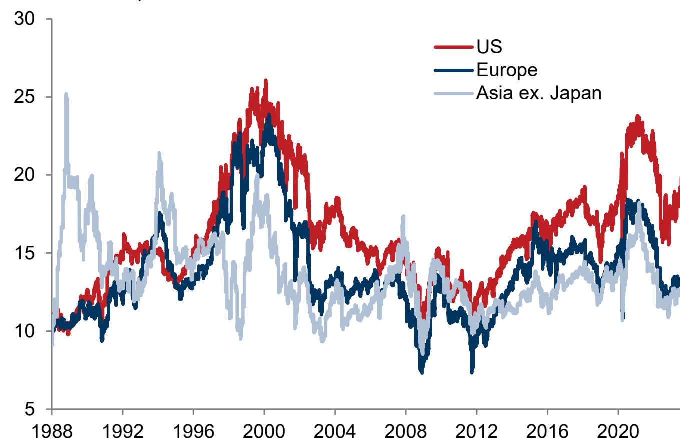
Source: Datastream, Goldman Sachs GIR.

Post-GFC: a turning point for US exceptionalism

The valuation of the US equity market grew to a significant premium relative to other markets in the cycle after the Global Financial Crisis (GFC). But this was not always the case. US equity valuations were more comparable to other regions for long stretches in the past, with the notable exception of the late 1980s, when the Asian equity market traded at a premium on the back of high growth rates in the region, and a brief time in the early 2000s, after which valuations across the regions broadly converged and remained similar until around 2013 owing to the sovereign debt crisis in Europe.

US equities trade at a significant premium to other markets

12m forward P/E ratio



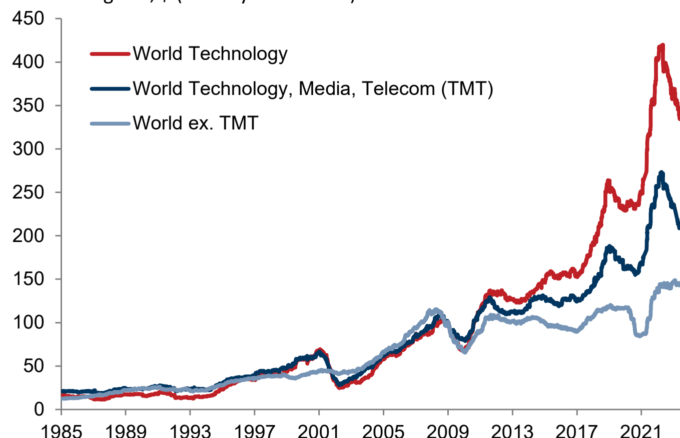
Source: Datastream, Worldscope, Goldman Sachs GIR.

The exceptionalism of the US equity market that has characterized the post-GFC era has had several drivers. Chief among them has been the collapse in global interest rates, which has benefitted longer duration assets that the US market has relatively more exposure to, as well as the US' relatively low weight in areas of the market that suffered from significant headwinds, like financials and commodity stocks. The extraordinary success of the tech sector in generating superior earnings growth has also played a critical role. The US has taken the lead in innovation in the fourth industrial revolution, and the success of its leading tech companies in generating superior earnings growth and margins has been dramatic.

While the technology sector enjoyed a brief period of stronger earnings in the late 1990s, this largely faded from the start of the 21st century through to the GFC. But since then, the earnings per share (EPS) growth of the technology sector has sharply outpaced that of the rest of the world's corporate sector, with many of these companies located in the US.

The tech sector has outperformed on an EPS basis post-GFC

12m trailing EPS, $ (January 2009 = 100)



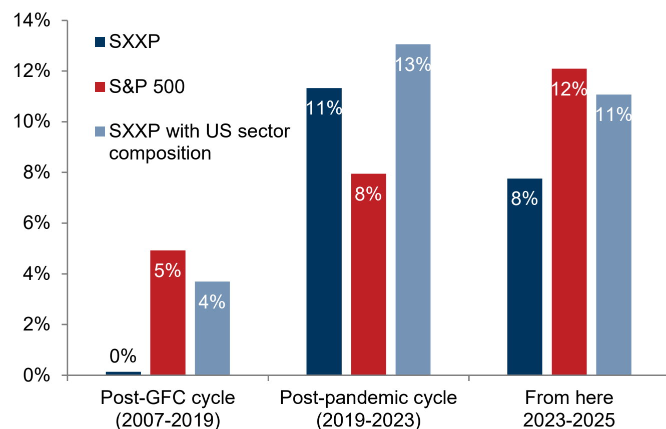
Source: Datastream, Worldscope, Goldman Sachs GIR.

Post-pandemic: another turning point

The premium earnings growth of the technology sector has faded in the post-pandemic cycle. This owes partly to the higher interest rate environment, but also to the very strong recovery in profits experienced by several value-oriented sectors, including banks and resources, beginning in 2022 after

a long period of very weak growth. This inflection point resulted in market returns across regions once again converging, putting an end to a decade of astonishing relative US equity market returns. Indeed, the S&P 500 sharply outgrew the SXXP in the post-GFC cycle, but Europe has outgrown since the pandemic.

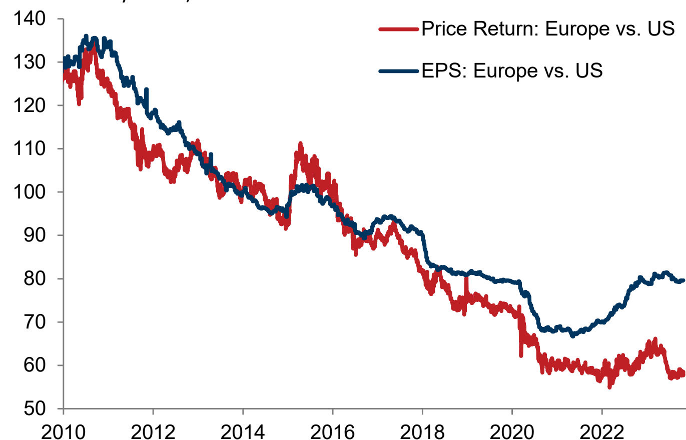
Europe has outgrown the US in the post-pandemic cycle
Annualized EPS growth, %



Source: Goldman Sachs GIR.

Much of this reversal of fortune reflects a convergence in underlying profit growth after a prolonged period of superior US earnings growth. The long period of European underperformance relative to the US, in particular, was largely a reflection of the US corporate sector significantly outgrowing Europe on EPS, which has faded over the past couple of years.

Europe has begun to outperform on improvement in its earnings
Price return performance and 12m forward EPS, STOXX 600 vs. S&P 500 (in local currency terms)



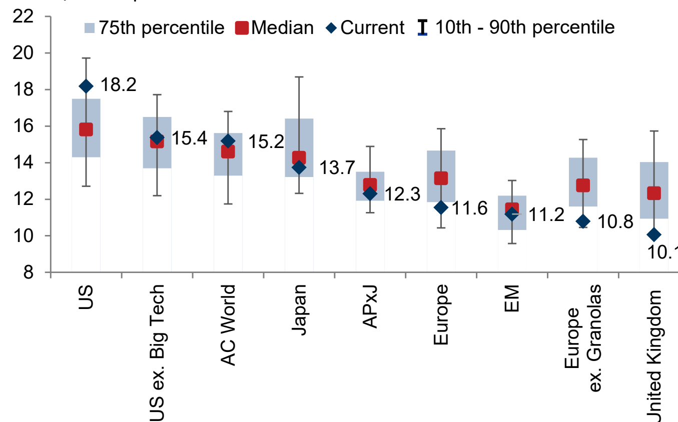
Source: Datastream, STOXX, Goldman Sachs GIR.

A very concentrated market

While the fundamental growth rates have converged, this has not yet been reflected in relative valuations, and US equity valuations remain at a significant premium both relative to history and to other markets. Some of this undoubtedly reflects the US' commanding dominance in the technology industry, but even excluding tech stocks, the US equity market trades at a large premium to its 20-year average and to other markets.

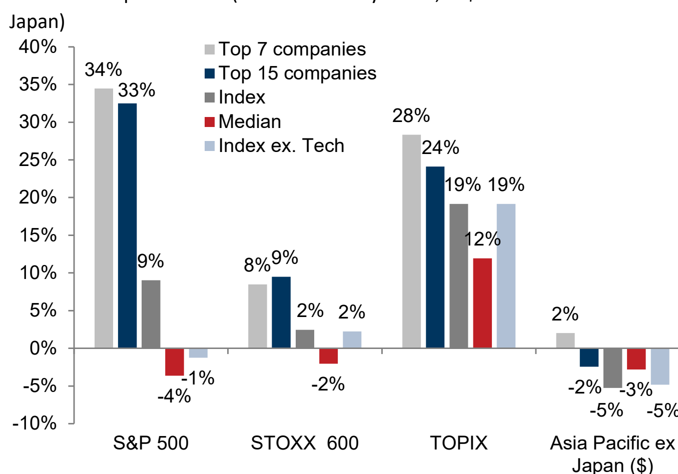
Nevertheless, the exceptionalism of the US stock market now seems to be much more a function of a handful of very large companies than the market overall. Indeed, the largest 15 companies in the US have risen by over 30% in value this year—and the largest seven by a comparable amount—while the market ex-tech is *down* by 1%—compared to up 2% in Europe (STOXX 600). In both cases, the median stock has underperformed cash.

US equities trade near the top of their historical valuation range
12m P/E multiple



Source: FactSet, Goldman Sachs GIR.

US equity exceptionalism is driven by a handful of big companies
Year-to-date price return (in local currency terms, in $ for Asia Pacific ex. Japan)



Source: Datastream, STOXX, Goldman Sachs GIR.

A less exceptional US decade ahead favors diversification

The US economy is undoubtedly one of the most dynamic in the world, and the US remains at the cutting edge of technological innovation, especially in the area of generative artificial intelligence. However, the significant outperformance of the US equity market over the past decade is unlikely to be repeated to the same extent over the next decade. The US equity market now has more concentration risk than other major markets, and the stock market is a much higher share of the economy in the US than elsewhere. US households also own much more equity than those in other markets, and further equity ownership could be constrained by increased competition from other asset classes such as cash and fixed income, both of which have become more attractive in the higher interest rate environment. So, investors should increasingly focus less on regional exceptionalism and more on investing in exceptional companies irrespective of location.

Peter Oppenheimer, Chief Global Equity Strategist

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Interview with Jan Hatzius

Jan Hatzius is Chief Economist and Head of Global Investment Research at Goldman Sachs. Below, he argues that US growth should remain relatively strong over the near and longer term.

Jenny Grimberg: Why has US growth outperformed growth in many other economies this year?

Jan Hatzius: The main reason why the US has outperformed other DM economies is the strength of the US consumer, and specifically the big rebound in real disposable personal income growth this year. In turn, this rebound reflects continued strong employment growth, rising real wages as price inflation has declined more than nominal wage growth, and rising net interest income as deposit rates have increased while mortgage rates are mostly fixed. By contrast, European consumers experienced a much bigger shock from last year's energy crisis, and this shock has only slowly subsided because retail energy prices have been slow to adjust to the sharp decline in wholesale prices. Moreover, DM economies outside the US have a higher share of variable-rate mortgages, which means that non-US households have been hit with a bigger increase in interest payments. Lastly, the US has relatively favorable demographics compared with most other DM economies, especially Europe and Japan.

Jenny Grimberg: But can US growth remain strong in the near term given the headwinds that the economy is facing?

Jan Hatzius: The blockbuster 4.9% (qoq ann.) surge in Q3 GDP does look temporary. We expect a slowdown to 1.6% in Q4 as the resumption of student loan payments weighs on consumer spending growth and housing demand slows on the back of higher mortgage rates, amongst other factors. But growth in 2024 should settle around 2% as the longer-term fundamentals still look favorable. In particular, real disposable income should continue rising at a solid pace given ongoing growth in employment, real wages, and interest income. I also disagree with the notion that monetary policy operates with long and variable lags in terms of the maximum impact on growth. We've found instead that these lags are reasonably short and predictable, so the biggest hit from the 525bp rise in the Fed funds rate since March 2022 is now behind us.

Jenny Grimberg: Most economic forecasters, though, still see a high risk of a US recession. What are they missing?

Jan Hatzius: You're right that the median forecaster's probability of a recession in the next 12 months has only come down modestly, from 65% earlier this year to around 50% now. Many of these forecasts frankly look stale to me. At a minimum, the decline in inflation, wage growth, job openings, and quits without a significant increase in layoffs suggests that the Fed doesn't *need* a recession to bring inflation down, contrary to what many people thought in 2022. Of course, we will see a recession at some point because we haven't abolished the business cycle, and a recession in the next year remains possible because the world remains uncertain. But we estimate that the probability over the next 12 months is around 15%—which the long-term average corresponding to the fact that a recession has occurred roughly every seven years—not 50%.

Jenny Grimberg: How concerned are you that inflation could stagnate above target, forcing the Fed to resume rate hikes and putting a soft landing in jeopardy?

Jan Hatzius: I wouldn't be too worried if inflation stabilized around 2½% which, as it happens, was the annualized Q3 pace for core PCE. The Fed probably wouldn't resume hiking if inflation remained at this level, but rather would just choose to keep rates at restrictive levels. While hiking could resume if inflation looks set to reaccelerate, I don't see that as likely.

Jenny Grimberg: You noted that Europe underperformed last year because of headwinds stemming from energy prices and adjustable-rate mortgages. Will these headwinds continue in 2024?

Jan Hatzius: Not to the same degree, which is why we expect a pickup in growth to just over 1%. Household energy prices should decline in lagged response to the drop in wholesale prices, and the increase in mortgage payments should slow assuming the ECB is done hiking interest rates. One caveat is the potential for a rise in sovereign stresses in Europe. Italy is particularly vulnerable given its disappointing budget numbers. While growth in southern Europe more broadly has held up relatively well in recent months, that may not last if sovereign stresses rise further.

Jenny Grimberg: China growth improved in Q3, yet the economy is also facing several headwinds. So, is growth in China set to underperform in the near term?

Jan Hatzius: China's near-term growth outlook looks a bit better than what many investors and forecasters seem to fear despite the slowdown in services and weakness in the property sector. Policymakers have delivered more stimulus over the last few months, and manufacturing activity and exports have improved, leading to a significant pickup in sequential growth from 2.0% in Q2 to 5.3% in Q3 (qoq ann.). We expect sequential growth to accelerate further in Q4 to 5.5% (qoq ann.), for full-year growth of 5.3% (yoy).

Jenny Grimberg: Can the US' relatively strong growth performance persist over the longer term?

Jan Hatzius: Long-term growth will depend significantly on supply-side factors. Over the past decade, our estimate of US potential growth—a function of labor force growth and productivity growth—has been around 1.75%. Advances in AI could very well lead to an acceleration in productivity growth—we estimate generative AI could add 1.5pp to US labor productivity growth annually over a 10-year period following widespread adoption. That 1.5pp shouldn't just be added on top of trend productivity growth, as AI may partly substitute for other technological progress. And whether that 1.5pp boost in productivity growth will translate one-for-one into GDP growth also depends on the ability of the labor market to reabsorb unemployed workers. That said, productivity growth a decade

from now has a good chance of being faster than over the last 10-15 years. We recently raised our long-term projection of US potential growth—i.e. the annualized growth rate in ten years—by 0.4pp to 2.3% to reflect this.

Jenny Grimberg: Are you concerned at all that the deteriorating US fiscal outlook could weigh on growth?

Jan Hatzius: Yes. The federal deficit stood at 6.3% of GDP in fiscal 2023, and at 6.8% when adjusted for the net effect of several one-off factors. While this is smaller than the deficit after the 2008 financial crisis, I am considerably more concerned about the budget outlook now than I was then. The debt/GDP ratio has risen sharply in the meantime, the level of real and nominal interest rates is much higher now, and—most importantly—the deficit is high despite an unemployment rate of only 3.8%. This means that it is a structural imbalance that requires a structural consolidation, whereas the post-2008 deficit was largely the cyclical counterpart of an underemployed economy. Barring a large acceleration in potential GDP growth or some other positive surprise, such as a big downside surprise on healthcare costs, a sizable fiscal consolidation is unavoidable at some point over the next several years. This will undoubtedly weigh on growth.

Jenny Grimberg: What about the growing political dysfunction in the US? Could that undermine growth?

Jan Hatzius: Governance in the US is indeed a risk, especially when combined with the unfavorable fiscal trajectory. The country is very polarized, and many of its political institutions and processes don't work efficiently. To some degree, the US is a victim of its own success because its institutions have been around for a long time, whereas other nations that have lost major wars have had to make much larger changes to their constitutional frameworks. For example, the budget process is very rocky in the US, as we are seeing right now and will probably see time and time again in coming years.

Jenny Grimberg: Overall, are you more or less optimistic on Europe's longer-term growth prospects versus the US'?

Jan Hatzius: Overall, I'm less optimistic about Europe. Demographics are a headwind for many economies, both DMs and EMs, and certainly for Europe, where the working age population has stagnated or even shrunk. And I don't see that changing anytime soon. More immigration could help but, as in the US, the idea of increasing immigration faces a lot of pushback. So, if demographics aren't helping, what will drive potential GDP growth? Europe could benefit from the widespread adoption of AI, which we estimate will boost productivity growth and, in turn, potential growth in the region by close to the same amount to that in the US, though, again, the ultimate impact is still uncertain. So, my best guess is potential growth of around 1.4% in the Euro area over the next several years after accounting for some potential AI-related boost.

Jenny Grimberg: But can Europe grow over the long term if Germany—its biggest economy—remains mired in several challenges that seem structural in nature?

Jan Hatzius: I started my career at Goldman Sachs as the junior German economist in Frankfurt in 1997, and over the years I've heard many disaster stories about the German economy that ultimately didn't come to pass. So, there tends to be a bit of excess pessimism around Germany. But with that caveat out of the way, it's clear that Germany currently faces some significant challenges. Its reliance on China as a market, and competition from China in some of its key industries—like auto manufacturing amid the shift to electric vehicles—is a problem. The increased cost of energy on the back of the green transition and the long-term effects of the Ukraine war is also a drag. And, like much of the broader region, Germany's demographic situation is challenging. So, Germany's next decade will probably be a tougher one than the last couple of decades, which were actually very successful. That will undoubtedly weigh on Euro area growth, and I wouldn't expect the impact to be offset by other European countries, some of which are experiencing their own challenges.

Jenny Grimberg: While China's near-term growth outlook may look better than many fear, it also seems to be facing many structural challenges. So, can China's economy hold up over the longer term?

Jan Hatzius: China's longer-term issues are indeed significant. The property market is overextended as both home price/income ratios and excess supply are very high. The demographics are deteriorating, with the population now shrinking. And rising geopolitical tensions could jeopardize China's position as the "workshop of the world." For all these reasons, we project that trend growth will continue to decelerate from the 6-8% range before the pandemic to only about 3% by the early 2030s. While this would still be quite high compared with the US or Europe, it is important to keep in mind that China is only a middle-income economy, with GDP per capita at less than one-third of the US level even when adjusted for differences in the cost of living. The upshot is that China may not be able to achieve the growth it needs to become a high-income country anytime soon.

Jenny Grimberg: More broadly, what countries and regions do you expect will out/underperform over the long term?

Jan Hatzius: A lot of this will come down to demographics, as we discussed. India is likely to grow faster than most other economies given its relatively high population growth and low GDP per capita, as increases in productivity growth are easier to come by the further behind the technological frontier a country is. Africa is in a similar position. On the flipside, Europe and Japan will likely fall behind, and Latin America will also likely be on the weaker side as its potential growth rates have been disappointing despite it being only a middle-income region. So, over the longer term the US probably has somewhat better growth prospects among DMs, and otherwise the best performers will likely mainly be EMs that are catching up.

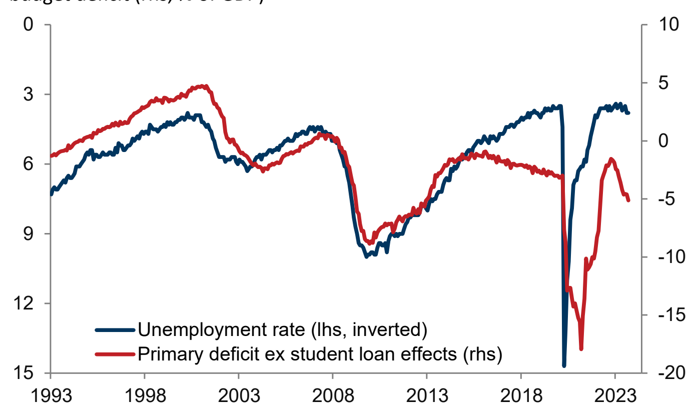
An exceptionally large US fiscal deficit

Alec Phillips assesses the US fiscal outlook amid a large, and growing, primary deficit

The US budget deficit has roughly doubled over the last year, from around $1tn (4% of GDP) to nearly $2tn (7.4% of GDP) [1], despite no major change in policy and solid economic growth, which has raised new concerns about Treasury financing and the problematic US fiscal outlook. While the higher near-term budget deficit appears concerning, we think the greater problem facing US policymakers remains the large primary deficit—the deficit excluding interest costs and temporary factors—which could lead to an eventual tightening of fiscal policy that could weigh on US growth, though we don't believe this is likely to happen for at least another couple of years.

A large primary deficit despite very low unemployment

Unemployment rate (lhs, inverted, %) vs. US federal government primary budget deficit (rhs, % of GDP)



Source: Treasury, Department of Commerce, Goldman Sachs GIR.

The manageable challenge: a wider deficit

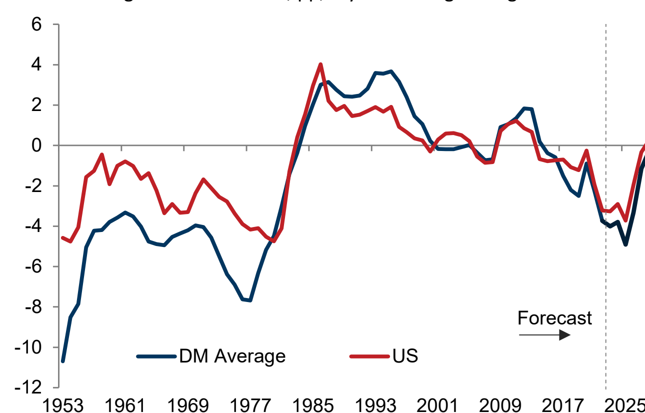
The higher budget deficit owes to several factors. Some factors, like the sharp decline in non-withheld personal taxes following lower capital gains realizations last year and the costs of covering failed banks and pension funds following this year's regional banking crisis[2], were likely one-time in nature, and are therefore unlikely to contribute to the deficit next year.

But other factors, like the rise in interest rates, are likely to have a more persistent impact. Higher rates have added an estimated ~1% of GDP to the deficit this year via higher interest costs and lower remittances from the Federal Reserve, which have fallen to zero amid the higher rate environment. And while remittances can't fall any lower, they are unlikely to help narrow the deficit over the next several years until the Fed has earned enough to offset accumulated losses from paying interest on reserves in excess of interest on portfolio holdings. Interest expense, on the other hand, is likely to continue rising. Indeed, we project that interest expense will rise from 2% of GDP in 2022 to 3% by 2024 and 4% by the end of the decade.

That said, higher interest rates are a more manageable headwind for the fiscal outlook than they may first appear. Historically, the real interest rate on borrowing has been roughly equal to the real US growth rate, and over the next few years the average rate the Treasury pays on US debt is likely to be lower than this, as a large portion of the outstanding debt was issued at much lower rates. If that proves to be the case, the debt issued to cover interest expense should be offset—and probably exceeded in the near term—by a reduction in the existing stock of government debt as a share of GDP, leaving the overall debt/GDP ratio unchanged. The upshot is that neither interest expense nor most of the noted one-off factors will add nearly as much to the debt level over the medium term as they have added to the near-term budget deficit.

A neutral interest rate-growth differential

Interest rate-growth differential, pp, 5-year moving average



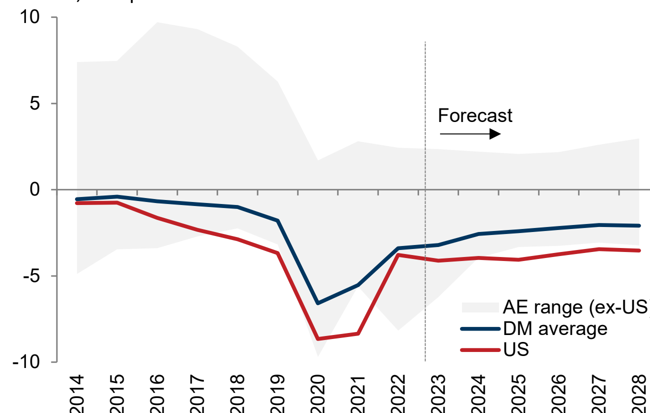
Source: Federal Reserve Board, Bureau of Economic Analysis, GS GIR.

The main challenge: a large underlying primary deficit

The greater problem facing US policymakers remains the large underlying primary deficit that existed before the recent deterioration began. The primary deficit varies with the state of the economy, as weaker growth leads to weaker tax receipts and often to new fiscal stimulus. However, since the mid-2010s this linkage has broken down and the deficit today is similar to that during much weaker growth periods in the past. Since then, the US has run a larger primary deficit than the average across developed markets (DM), and this higher structural deficit looks set to continue over the next few years.

A relatively large US deficit is likely to continue

Advanced economies' general government cyclically adjusted primary balance, % of potential GDP



Source: IMF, Goldman Sachs GIR.

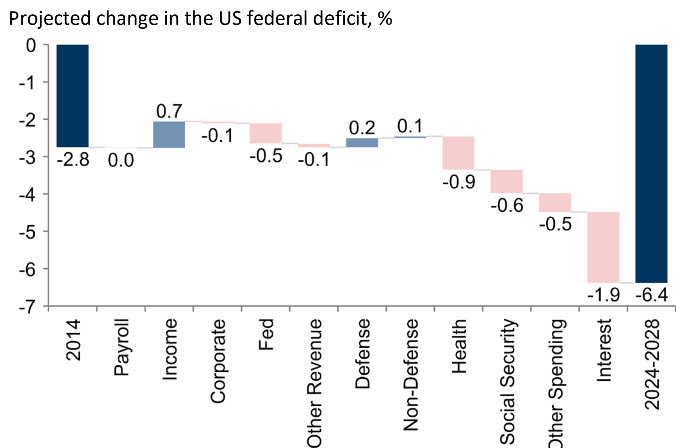
[1] The Biden Administration's student loan forgiveness plan added to the reported deficit in FY22 but, in light of the Supreme Court's blocking of the plan, it subtracts from the FY23 deficit. Excluding this student loan-related accounting, the deficit rose from around $1tn in FY22 to $2tn in FY23.

[2] For more detail, see "Big Deficit, Little Stimulus" US Economics Analyst, July 24, 2023.

What changed over the last decade? Comparing our projections for the next five years to 2014, when the primary deficit was at its lowest, revenues look likely to be largely unchanged. Tax receipts are likely to be somewhat higher, even assuming expiring tax cuts will be extended, while Fed remittances will remain near zero. The main changes are to benefit spending—which is likely to have risen by around 2% of GDP, largely driven by the major entitlement programs, Medicare and Social Security—and, as mentioned above, interest expense.

Interest expense and benefit spending likely to weigh on the federal deficit

Projected change in the US federal deficit, %

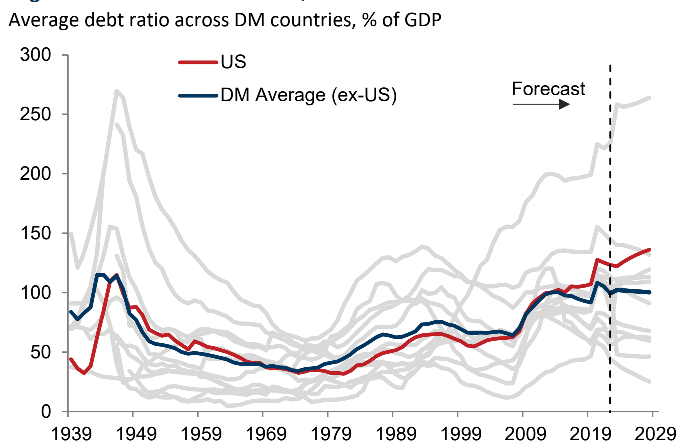


Source: Goldman Sachs GIR.

As a result, we expect the US debt/GDP ratio to rise gradually in coming years, at a rate of ~2pp annually. This is smaller than the annual deficit because, as discussed earlier, economic growth largely offsets additional interest expense, leaving the primary deficit as the main contributor to the rise in debt.

A gradual rise in the US debt/GDP ratio

Average debt ratio across DM countries, % of GDP



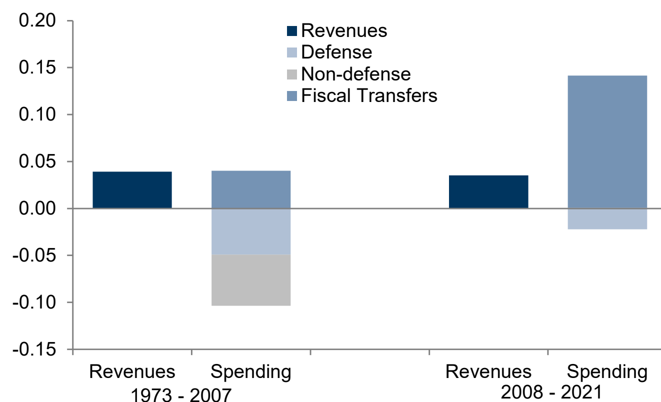
Note: Grey lines represent individual DM countries.
Source: IMF, Goldman Sachs GIR.

Historically, rising debt/GDP ratios has led to fiscal consolidation…

In the past, a rise in the debt/GDP ratio has led Congress to trim the deficit. Historically, this has been achieved through discretionary spending cuts and, to a lesser extent, tax increases. However, more recently this fiscal reaction function has been largely absent. Tax revenues increased modestly over the last 15 years, as they have done in the past, but other spending increased much more.

A changing fiscal reaction function as spending increased as debt/GDP rose

Fiscal reaction function (change in spending and revenue for each 1pp change in lagged debt/GDP ratio), % of GDP



Source: Congressional Budget Office, Goldman Sachs GIR.

This higher spending is understandable given the dual challenges of the financial crisis and pandemic. But with those challenges in the past, it is still unclear when the US will embark on a more sustainable fiscal path. In the late 1980s and early 1990s, a rise in interest expense led to spending caps, successive rounds of cuts to benefit programs, and several tax increases. The largest of those deficit reduction packages, enacted in 1990 and 1993, were projected at the time to reduce the deficit by ~0.5% annually over eight years.

…which could be ahead, although not in the near term

In theory, a similar shift toward US fiscal consolidation could occur over the next several years, which could eventually weigh on growth. However, this scenario doesn't appear likely in the near term. The only trimming Congress looks likely to do before the 2024 election is maintaining the two-year spending caps already enacted alongside the debt limit increase in June, which will make only a small dent in the deficit.

The next potential forcing events won't occur until after the election. Congress will need to address the debt limit again in 2025 and, at the end of that year, the personal tax cuts enacted in 2017 are set to expire. Full expiration would raise tax revenues by 1% of GDP and could open the door to other fiscal changes (e.g., trimming tax subsidies for green investment or reducing healthcare payments). Later in the decade—likely sometime between 2028 and 2031—the trust funds that finance Medicare and Social Security are likely to exhaust their resources. Congress is very likely to intervene to stop benefit cuts of as much as 1/3 that would otherwise occur, which could also force decisions on longer-term reforms.

While the risks lean in the direction of fiscal tightening, we think overall US fiscal policy looks likely to continue on its current trajectory for at least another couple of years. Eventually, Congress is likely to enact a more robust deficit reduction package that could weigh on growth. When it does, the Fed would likely offset much of this effect, leading to a lower primary deficit and, over time, potentially also a slightly lower borrowing rate, all else equal.

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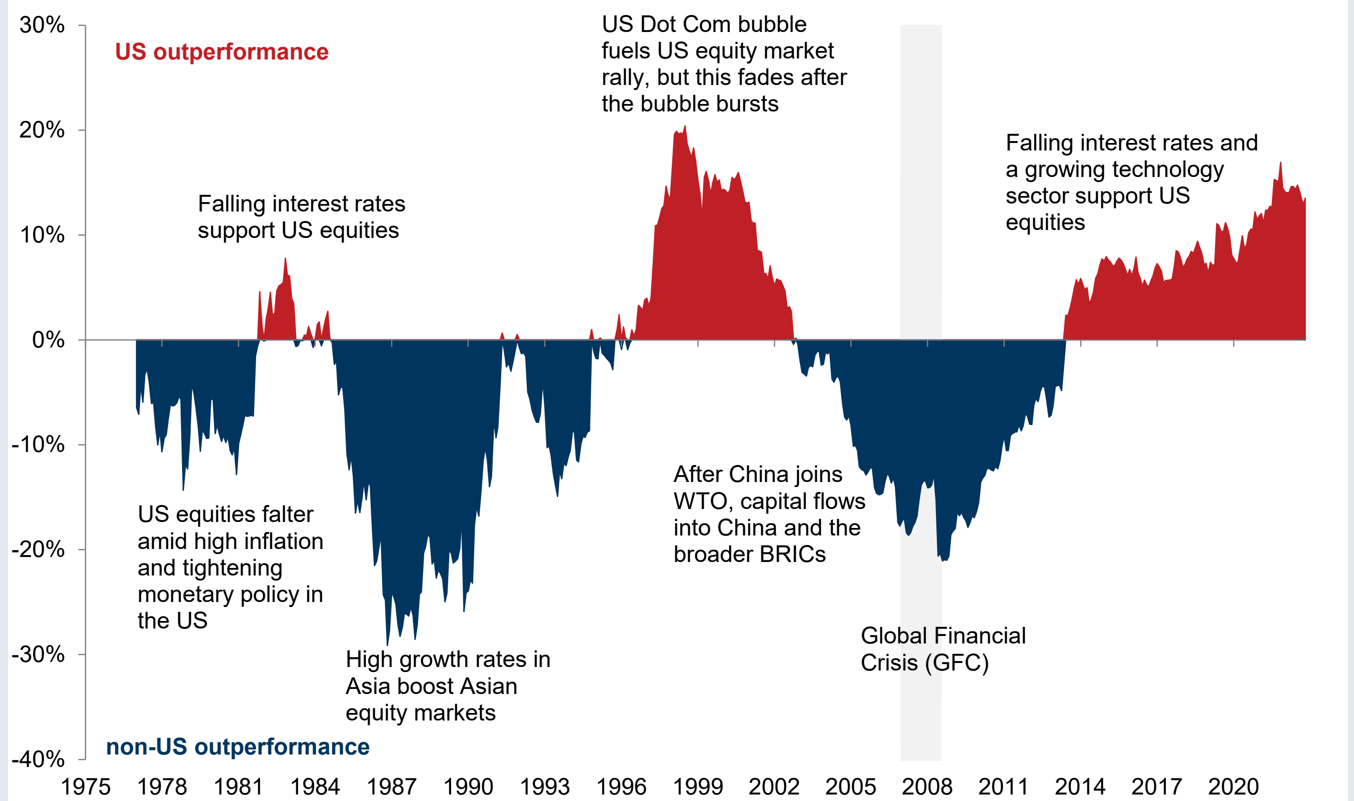
US equity relative performance

While US equities have outperformed non-US equities over the past decade, historically, the performance of US versus non-US equities has rotated over time

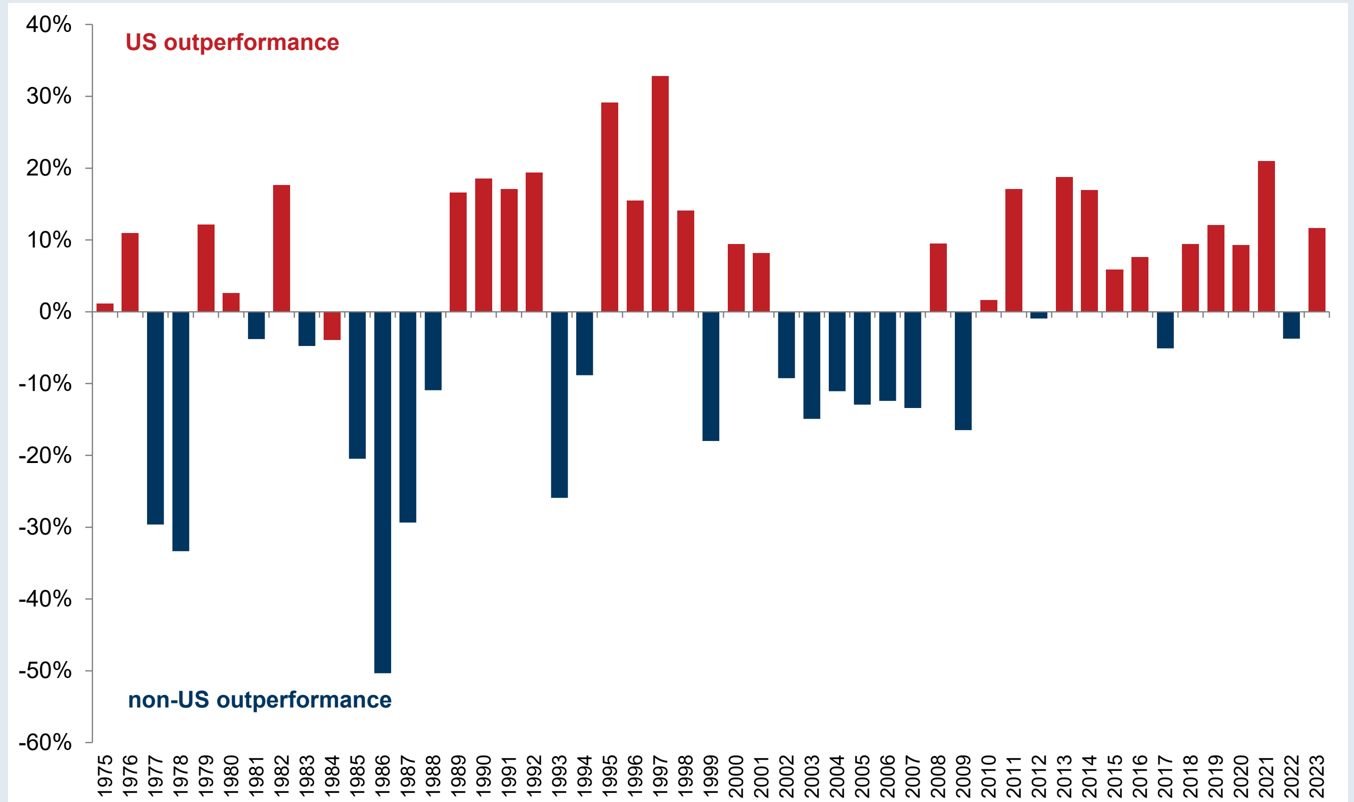
5-year rolling average of annualized monthly relative return of S&P 500 vs. World ex. US equity index (Worldscope), %



Source: Bloomberg, Worldscope, Goldman Sachs GIR.

On an annual basis, US equities have outperformed non-US equities in most years since the end of the Global Financial Crisis (GFC)

Annual relative return of S&P 500 vs. World ex. US equity index (Worldscope), %



Note: Based on Worldscope data which differs from the US outperformance figures in Rebecca Patterson's interview (pg. 4).
Source: Bloomberg, Worldscope, Goldman Sachs GIR.

10 exceptional US years behind, not ahead

Kevin Daly argues that US outperformance over the last decade will be difficult to repeat

The US' relative economic and market performance over the past decade has been exceptional, and we remain relatively optimistic about the outlook for the US economy into 2024. Nevertheless, the outperformance that US markets have recorded over the past 10 years is unlikely to be repeated over the next 10, for two reasons. First, US potential growth remains lower than the global average, and especially that of EM economies. Second, following 10 years of superior returns, US currency and equity valuations are stretched relative to peers, making further outperformance more difficult to sustain.

10 years of US exceptionalism

The US' relative economic and asset price performance over the past decade has been exceptional:

- **Economic growth:** US GDP growth has exceeded the DM average over the past 10 years—averaging 2.3% vs. 1.8%—despite starting from a higher income level than most of its DM peers. And, while much of the global economy has struggled this year with tighter global financial conditions, the US has continued to defy expectations of a hard landing.
- **A stronger US Dollar:** Over the past 10 years, the US Dollar's (broad) trade-weighted exchange rate has risen by 31% in nominal terms and by 30% in real terms.
- **Sustained US equity outperformance:** The S&P 500 total (USD) returns have averaged 12% annually over the past 10 years, 4pp higher than average global returns.

Following more than a decade of growing faster than other DM economies and delivering superior asset price returns, it is natural to begin to view these trends as persistent. However, there are good reasons to believe that US economic and asset outperformance won't be sustained over the next 10 years.

Economic growth likely to be stronger outside of the US

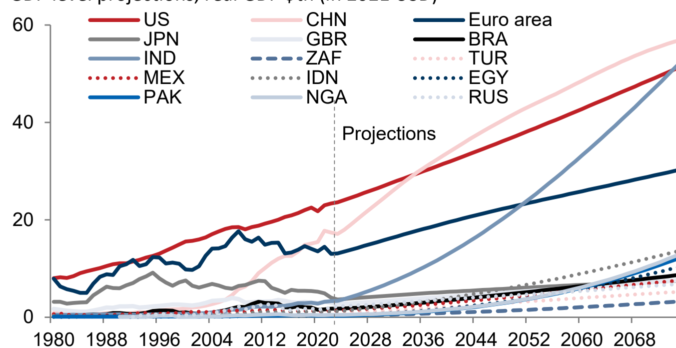
It is important to put the US' economic outperformance over the past 10 years in context. Although the US economy has grown faster than most DM economies (2.3% vs. 1.8%), it has not kept pace with global growth (3.1%). This has owed to the contribution from EM economies which—through a variety of major economic shocks—have maintained income convergence, growing consistently faster than their DM peers.

We expect this EM growth outperformance to continue. Over our forecast horizon (which extends through 2034), our long-term growth projections imply that US GDP growth will average around 2.1%, modestly above the DM average, but well below our projection for global (2.5%) and EM (3.8%) growth. By 2050, our projections imply that the world's five largest economies (measured in USD) will be China, the US, India, Indonesia, and Germany, with a significant shift in the weight of global GDP toward Asia.

The faster pace of GDP growth in EMs implies that their share of global GDP will continue to rise, their incomes will slowly converge toward US levels, and the distribution of global income will shift toward this growing group of middle-income economies. Over time, EM GDP outperformance is also likely to imply stronger equity earnings growth.

Large emerging markets growing faster than the US

GDP level projections, real GDP $tn (in 2021 USD)



Source: Goldman Sachs GIR.

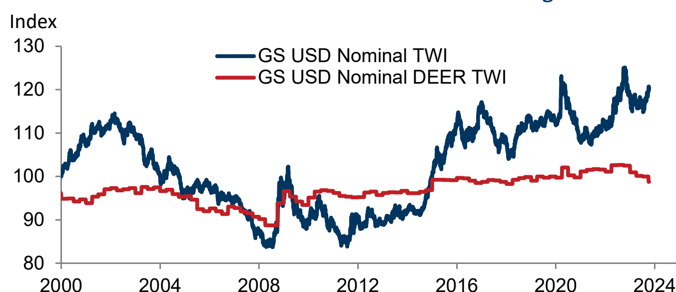
US currency and equity valuations appear stretched

Relative valuations are another reason why US asset price outperformance is unlikely to continue over the next 10 years. A consequence of the US' outperformance is that its equity and currency valuations are now stretched relative to peers.

The Dollar's exceptional strength in recent years has pushed it well above our fair value estimates. Our proprietary GS-DEER valuation model—which compares relative price levels—implies that the Dollar is ~20% overvalued on a trade-weighted basis. FEER-based valuation estimates—which focus on external balances—also suggest that the Dollar is very overvalued.

The Dollar is around 20% overvalued on a trade-weighted basis

Index



Source: Goldman Sachs GIR.

We don't expect the Dollar's overvaluation to reverse in the near term. Its strength reflects international portfolio inflows that are chasing the US' superior returns. Without a near-term catalyst that reverses these flows, we expect the Dollar to remain relatively strong for now (see pg. 20). However, at a 20% overvaluation, the bar for further USD outperformance is high. And, over a 10-year horizon, we expect some of the Dollar's overvaluation to unwind.

Similarly, the impact exceptional US equity returns have had on their own relative valuations suggests that, longer term, US equity outperformance will be hard to sustain. The S&P 500's (trailing) P/E ratio is 21.4x—vs. 17.7x for the MSCI All-Country World Index and 13.5x for the MSCI EM Index—so its premium relative to both indices is unusually large. Part of this reflects the importance of tech stocks in US indices. But even on a sector-neutral basis, US equities appear relatively expensive.

Asset performance can be a victim of its own success. Despite the outperformance of US assets over the past 10 years—indeed, partly *because* of this outperformance—US asset prices are less likely to outperform over the next decade.

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US Dollar: defying expectations

Kamakshya Trivedi argues that despite a confluence of factors that point toward significant US Dollar depreciation, the Dollar should remain in a shallow depreciation regime, with more of the same differentiated Dollar performance seen year-to-date

An overvalued Dollar, declining inflation, a Fed that looks at or close to the end of a hiking cycle, and resilient risk sentiment all point toward significant Dollar depreciation. And yet, much like the US economy, the Dollar continues to defy expectations, depreciating only modestly since its peak in autumn 2022. Although the cyclical picture—and especially progress on disinflation that narrows the distribution of core rate outcomes and reduces the risk of more severe downside scenarios—argues for more resilient risk sentiment and a weaker Dollar, we continue to expect only a bumpy deceleration for the Dollar, for two reasons. First, slack in the US economy is still limited and, second, we are still waiting for Dollar challengers to step up to the plate. As such, we expect the Dollar to remain in a shallow depreciation regime, with the differentiated Dollar performance seen year-to-date in FX markets set to continue.

All about slack

Major episodes of Dollar behavior after a peak over the past 50 years suggests that the underlying macro factor that distinguishes episodes of sharp Dollar descents vs. flatter periods is the level of slack in the economy rather than valuation. Provided slack exists, growth can continue uninterrupted while inflation and rates stay low, such that the Dollar can continue to depreciate. In contrast, limited slack, tight labor or commodity markets, and so higher inflation (or the perception of such) prevent a sustained Dollar weakening.

The current macro backdrop resembles the latter more than the former. Relative to consensus, our economists remain more positive on US growth, and while a Q4 pothole may see the re-emergence of some pessimism, it is likely to give way to a firm activity picture into next year. And whereas we expect more disinflation than the Fed forecasts, the bar for rate cuts is high, as market pricing increasingly reflects. This suggests a flatter period for the Dollar ahead rather than an episode of sharp depreciation.

No challengers in sight

The absence of credible challengers is also likely to keep the Dollar well-supported. FX is a relative game, and for the Dollar to decline more sharply, other jurisdictions must warrant stronger appreciation—an outcome that is still not clear. The US is far from alone on the disinflation journey. Much of the EM world has 'been there, done that' already, and are looking to ease policy over coming months. Europe is not far behind, with the ECB already more firmly on hold and more likely to entertain the possibility of cuts given a weaker activity profile. China is in a much weaker place cyclically and structurally, and still likely to see more policy easing in Q4. Even in Japan, the one place that is on a tightening path, a gradual yield curve control (YCC) adjustment is likely to cause the Yen to keep grinding weaker until the revealed aversion of policymakers to higher yields reverses more tangibly. Our economic forecasts do embed an expectation that the global cyclical picture will become more balanced, and we may be beginning to see some signs of a better impulse from China. However, for now our views are still most consistent with a discerning Dollar backdrop—room to run for the cyclical currencies, especially higher-yielding parts of EM FX, but with major currencies lagging behind.

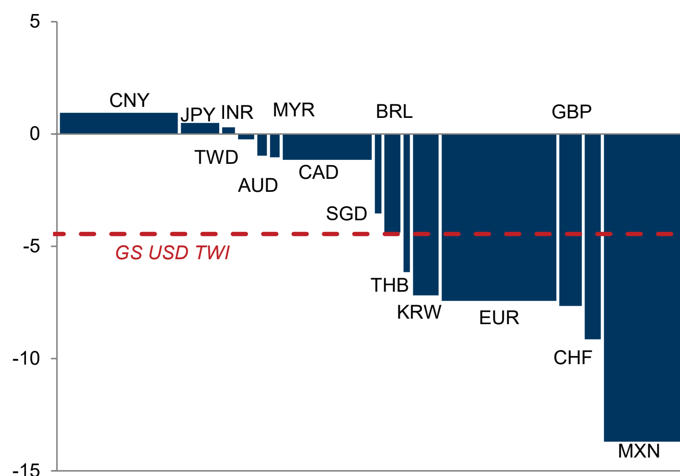
Finally, a sharper Dollar depreciation requires better capital return prospects in the challengers, which has so far not emerged. Indeed, we see more limited prospects for capital to be redirected away from USD. Given the high 'risk-free' yields on offer in the US curve, positive yields in the Euro area have only seen a return to the pre-2014 norm of gradual inflows after large outflows in the negative rate period. Artificial intelligence-related enthusiasm has also tilted equity outperformance back toward the US. And in China, soft growth, a large rate differential, and lingering geopolitical concerns have limited capital inflows, with few signs of that changing anytime soon.

Shallow depreciation, differentiated performance

All told, the resilient cyclical picture in the US and the lack of clear challengers abroad suggest a bumpy path on a shallow Dollar depreciation trajectory, in our view. As such, we expect more of the same differentiated Dollar performance seen year-to-date, with room for tactical appreciation in CHF, CAD, and more cyclically exposed higher-yielding EM crosses, while other major currencies lag behind. In particular, despite policy pushback, pressure has been building on CNY and JPY, and a weaker mix of activity and policy in Europe could mean further tactical weakness in EUR, GBP, and SEK.

FX markets have been more differentiated in 2023 than they were in 2022, netting out to shallow Dollar depreciation since its October 2022 peak

US Dollar returns since October 2022 Dollar peak, % change



Note: Bar width proportional to trade-weighted index weight.
Source: Goldman Sachs GIR.

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De-Dollarization: more talk, less action

Michael Cahill and Lexi Kanter argue that attempts at de-Dollarization are still contained and constrained, and will likely remain so

Talk of de-Dollarization has reached new highs amid an increasingly fragmented geopolitical landscape and well-publicized efforts from some official sector actors to move away from the Dollar. But *actual* de-Dollarization is still contained and constrained, as only a few countries have attempted it, with mixed success, and larger reserve managers face significant constraints to doing so. At the same time, private sector investors have continued to flock to Dollar assets given their 'exceptional' returns, which has helped sustain the Dollar's high valuation. And none of this looks likely to change anytime soon.

The Dollar's demise has been over-exaggerated

The Dollar has been overvalued for almost a decade on standard metrics, and most investors have expected the Dollar's demise for a while now. Some of that negative outlook owes to cyclical factors—the end of a Fed hiking cycle typically coincides with a weaker Dollar. But others have suggested that structural forces, such as the changing global geopolitical landscape and the US' fiscal outlook that has become more concerning amid the higher-rate environment (see pgs. 16-17), could also weigh on the Dollar's prospects.

The Dollar has so far mostly frustrated those prognostications with its persistently high valuation. Rather than de-Dollarizing, capital has instead chased 'US exceptionalism' and flowed *into* US assets during the last decade of US outperformance, and, in particular, exceptional US equity returnzs (see pgs. 6-7). These inflows, combined with the strong relative performance of US assets, have resulted in a sharp rise in the share of US assets in global portfolios. A closer look reveals that much of that capital came from the Euro area and Japan—both places where low rates, weak growth, and some policy incentives repelled investors. Strong returns in the US, especially in the tech sector, have also helped attract passive investors, like sovereign wealth funds, to US assets, and perhaps inhibited capital outflows from the US into EMs as well.

No real alternative

We strongly believe there is currently no real alternative to the Dollar as the global reserve currency. While the Dollar's share of FX reserves has declined over the last decade (see pg. 22), this has largely owed to increases in currencies like the Australian and Canadian Dollars as investors searched for higher returns—the same forces that have also supported the Dollar—at the expense of lower-yielding currencies like the Euro and the Yen. Structurally, reserve managers tend to gravitate to currencies that are liquid and reliably appreciate in risk-off periods. In this regard, the Dollar still stands alone.

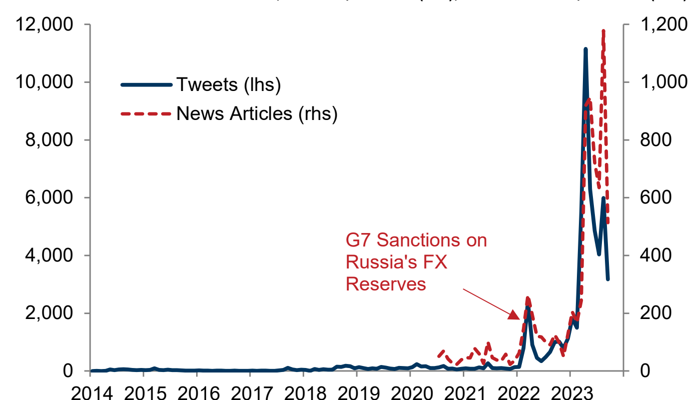
That said, there have been some high-profile efforts to move away from the Dollar. Russia's experiences with shifting its transaction currencies over the last five years highlight some of the risks facing the Dollar system, but also the challenges facing reserve managers that may want to follow. First, even though Russia moved a relatively small number of reserves compared to what a wholesale global shift would entail, it seemed to encounter liquidity issues while moving into RMB assets from USD assets. Second, these attempts came with additional currency risks that went mostly unrewarded because Europe joined the US in applying sanctions. Reserve managers need highly liquid, reliable, and deep capital markets. And they need to consider what reserves might be required in a crisis. These factors present a high bar to meaningfully move away from the Dollar in the near term. While plenty of countries may *want* to move away from the Dollar, the arguments to do so are not economically driven, and the alternatives are limited.

The Dollar's global role will live on

With the Dollar's high valuation over much of the last decade owing to superior risk-adjusted returns that have attracted portfolio flows from other DM economies, we think the end of the Dollar's cyclical run will require better capital returns abroad. And more structural changes to the Dollar's global role will require deeper capital markets outside of the US and significant changes in the mix of who holds reserve assets. As such, we expect the Dollar to retain its position as the global reserve currency for some time to come.

Lots of talk about de-Dollarization...

De-Dollarization conversations, tweets/month (lhs), news articles/month (rhs)



Source: X Corp., Goldman Sachs GIR.
We thank GS Data Works for their help with this chart.

...but not a lot of action

US assets as a share of global portfolio investment assets, %

Note: Grey bars represent recessions.
Source: IMF, Haver Analytics, Goldman Sachs GIR.

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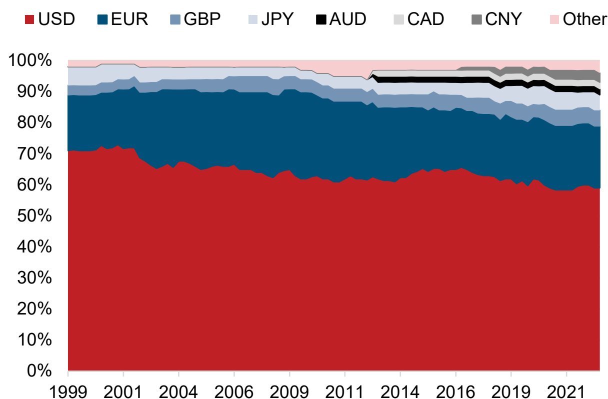
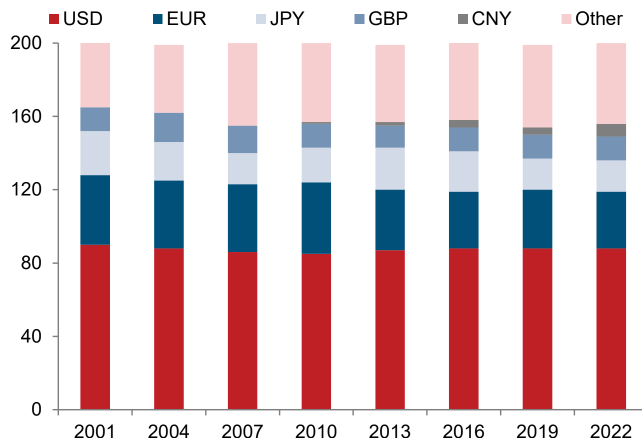
A snapshot of Dollar dominance

The US Dollar comprises ~60% of global reserves today, but Dollar reserves have steadily declined in recent decades
FX share of allocated global reserves, % of total



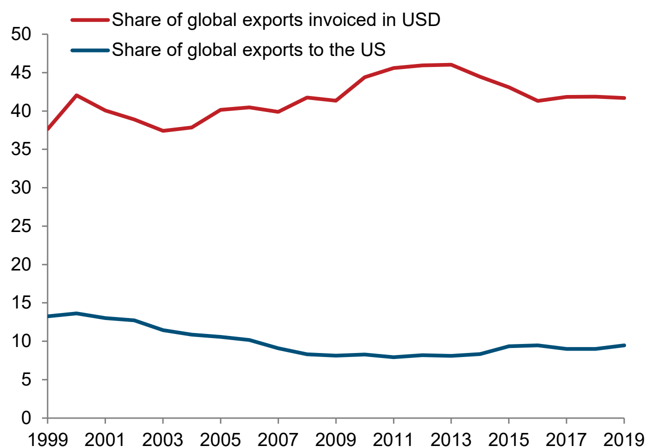
Note: Data as of Q1 2023.
Source: IMF, Haver Analytics, Goldman Sachs GIR.

The Dollar's role in the global FX market remains unrivaled
Foreign exchange turnover by currency, %



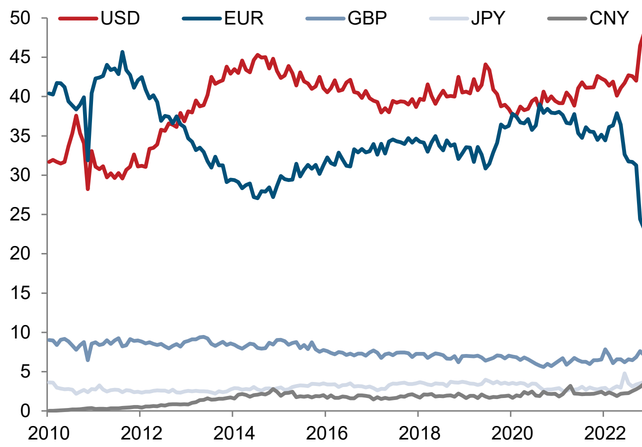
Note: As two currencies are involved in each FX transaction, the sum of shares in individual currencies totals 200%; adjusted for local and cross-border inter-dealer double-counting; daily averages in April.
Source: BIS Triennial Central Bank Survey, Goldman Sachs GIR.

The Dollar has continued to play an important role in global trade even as the share of trade destined for the US has fallen
%



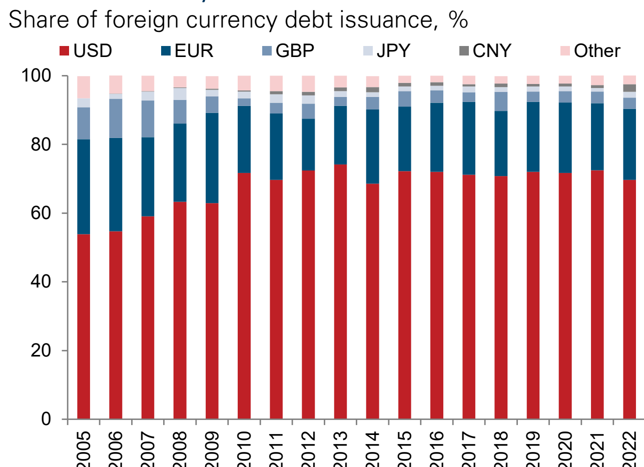
Source: Boz et al. (2022) (see Figure 7) (thanks to Georgios Georgiadis for data), Goldman Sachs GIR.

The Dollar's role in international payments has strengthened in recent years, with ~50% of all SWIFT FX transactions involving it
FX payments via SWIFT involving each currency, %



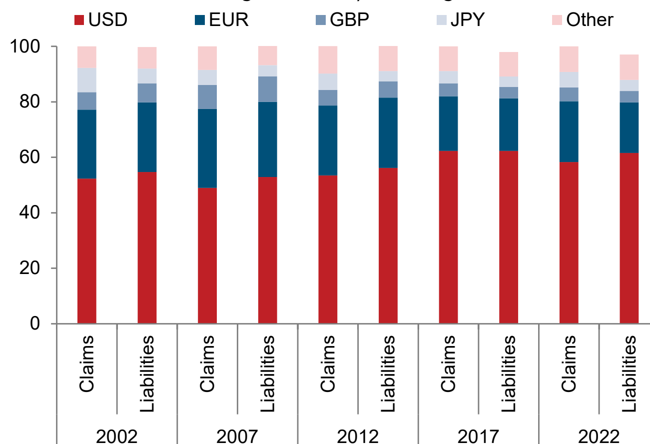
Note: The sharp decline in Euro usage between Feb and Mar 2023 owes to a change in market practice in the region having to do with how European central banks report messages (see pg. 9 here for more detail); data as of 8/31/2023.
Source: Bloomberg, Goldman Sachs GIR.

The Dollar has increasingly dominated foreign currency debt issuance in recent years
Share of foreign currency debt issuance, %



Note: Foreign currency debt is denominated in a foreign currency relative to the country of the issuing firm (not the location of issuance).
Source: Fed Board of Governors, Refinitiv, Goldman Sachs GIR.

The Dollar also remains dominant in international banking
Share of int'l and foreign currency banking claims/liabilities, %



Note: Banking claims and liabilities are defined as loans and deposits only, including repo agreements. Excludes claims on and liabilities to related banking offices and central banks and intra-Euro area cross-border claims and liabilities.
Source: Fed Board of Governors, BIS Locational Banking Statistics, GS GIR.

Summary of our key forecasts

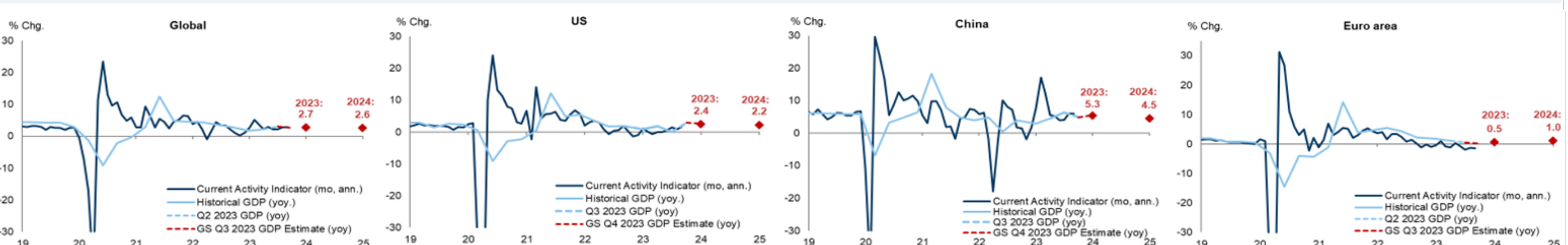
GS GIR: Macro at a glance

Watching

- **Globally,** we expect real GDP growth of 2.7% yoy in 2023, reflecting a fading drag from monetary tightening and resilient consumer, especially in the US. We expect this to continue next year, which, along with a DM manufacturing cycle turn, should keep growth solid at 2.6% yoy in 2024. We expect global core inflation to fall below 3% in 2024, driven by supply chain improvements and slower wage growth.
- **In the US,** despite a likely temporary growth slowdown in Q4, we expect solidly positive real GDP growth of 2.4% yoy in 2023, reflecting a reduced drag from monetary tightening and strong real disposable income growth. In 2024, we expect GDP growth of 2.2% yoy and continue to see a below-consensus 15% probability of entering a recession over the next 12 months. We expect core PCE inflation to decline to 2.4% by Dec 2024, reflecting disinflation from the advanced stage of rebalancing in the labor, housing rental, and car markets. We expect the unemployment rate to end the year at 3.6% and remain there for the next few years.
- **We believe the Fed's** hiking cycle is complete and that the Fed will remain on hold at the current Fed funds rate range of 5.25-5.5% into 2024. We expect the first rate cut to only come in 4Q24 as the resiliency of the economy and a growing view that the neutral rate could be higher than Fed officials previously thought weaken the case for rate cuts next year.
- **In the Euro area,** we expect a period of stagnation in 2H23 reflecting a larger and more persistent credit drag following the ECB hiking cycle and weak data momentum, bringing our full-year GDP growth forecast to a modest 0.5% in 2023, although we expect growth to pick up next year as several headwinds fade and real disposable income picks up. We expect core inflation to slow to 3.8% yoy by the end of 2023, although the recent volatility in energy prices poses upside risks to inflation.
- **We believe the ECB's** hiking cycle is complete and that the ECB will remain on hold at 4.00% into 2024, with the first rate cut coming only in 4Q24. On balance sheet policy, we expect the ECB to limit PEPP reinvestments in 2Q24 to EUR 10bn/month, before stopping all reinvestments from 3Q24.
- **In China,** we expect the recent improvement in sequential growth momentum to persist through the remainder of the year owing to a diminishing drag from inventory destocking, step up in policy easing measures, and stabilizing exports, with our full-year GDP growth forecast at 5.3% yoy in 2023. That said, we expect lower growth next year given lingering risks in the economy, including uncertainty around the sustainability of household consumption, local government implicit debt problems, and the ongoing property downturn.
- **WATCH CONFLICT IN THE MIDDLE EAST AND A HIGHER DM RATE REGIME**. The ongoing conflict in the Middle East has increased uncertainty around the outlook and could have broader spillovers for economies and markets if it escalates further. And across DM economies, while the transition to a higher rate regime could extend the growth drag from tighter financial conditions, we think higher rates will be a manageable headwind to growth, not a recessionary shock.

Goldman Sachs Global Investment Research.

Growth



Source: Haver Analytics and Goldman Sachs Global Investment Research.
Note: GS CAI is a measure of current growth. For more information on the methodology of the CAI please see "Improving Our Within-Month CAI Forecasts," Global Economics Comment, Mar. 06, 2023.

Forecasts

Economics

GDP growth (%)	2023 GS (Q4/Q4)	2023 GS (CY)	2023 Cons. (CY)	2024 GS (CY)	2024 Cons. (CY)
Global	2.8	2.7	2.8	2.6	2.6
US	2.7	2.4	2.2	2.2	1.0
China	5.6	5.3	5.0	4.5	4.5
Euro area	0.3	0.5	0.5	1.0	0.8

Policy rates (%)	2023 GS	2023 Mkt.	2024 GS	2024 Mkt.
US	5.38	5.11	5.13	4.49
Euro area	4.00	3.59	3.75	3.07
China	1.70	1.34	1.70	1.47
Japan	-0.10	0.21	-0.10	0.41

Markets

Interest rates 10Yr (%)	Last	E2023	E2024
US	4.84	4.30	4.30
Germany	2.83	2.75	2.25
Japan	0.88	0.80	0.90
UK	4.43	4.40	4.00

FX	Last	3m	12m
EUR/$	1.06	1.07	1.12
GBP/$	1.22	1.18	1.25
$/JPY	150	150	150
$/CNY	7.30	7.30	7.00

Commodities	Last	3m	12m
Crude Oil, Brent ($/bbl)	90	93	100
Nat Gas ($/mmBtu)	3.16	2.95	2.85
Copper ($/mt)	8,030	8,500	10,000
Gold ($/troy oz)	1,983	2,050	2,050

Credit (bp)		Last	4Q23	
USD	IG	128	118	-
	HY	434	355	-
EUR	IG	176	157	-
	HY	490	435	-

Equities

S&P 500	E2023 GS	E2023 Cons.	E2024 GS	E2024 Cons.
Price	4,500	–	–	--
EPS	$224	$221	$237	$246
Growth	1%	0%	5%	12%

Returns (%)	12m	YTD	E2023 P/E
S&P500	14.0	7.2	19.1x
MXAPJ	17.0	-6.0	14x
Topix	18.0	19.2	15.7x
STOXX 600	11.0	1.7	12x

Consumer	2023 CPI (%, yoy)	2023 Unemp. Rate*	2024 CPI (%, yoy)	2024 Unemp. Rate*
US	4.1	3.6	2.9	3.6
Euro area	5.6	6.5	2.9	6.6
China	0.4	–	1.7	–

Wage Tracker 2023 (%)	Q1	Q2	Q3	Q4
US	5.0	4.8	4.3	--
Euro area	--	--	–	--
China	--	--	–	--

**Denotes end of period.*
Source: Bloomberg, Goldman Sachs Global Investment Research. For important disclosures, see the Disclosure Appendix or go to www.gs.com/research/hedge.html.

Market pricing as of October 27, 2023

Glossary of GS proprietary indices

Current Activity Indicator (CAI)

GS CAIs measure the growth signal in a broad range of weekly and monthly indicators, offering an alternative to Gross Domestic Product (GDP). GDP is an imperfect guide to current activity: In most countries, it is only available quarterly and is released with a substantial delay, and its initial estimates are often heavily revised. GDP also ignores important measures of real activity, such as employment and the purchasing managers' indexes (PMIs). All of these problems reduce the effectiveness of GDP for investment and policy decisions. Our CAIs aim to address GDP's shortcomings and provide a timelier read on the pace of growth.

For more, see our CAI page and Global Economics Analyst: Trackin' All Over the World – Our New Global CAI, 25 February 2017.

Dynamic Equilibrium Exchange Rates (DEER)

The GSDEER framework establishes an equilibrium (or "fair") value of the real exchange rate based on relative productivity and terms-of-trade differentials.

For more, see our GSDEER page, Global Economics Paper No. 227: Finding Fair Value in EM FX, 26 January 2016, and Global Markets Analyst: A Look at Valuation Across G10 FX, 29 June 2017.

Financial Conditions Index (FCI)

GS FCIs gauge the "looseness" or "tightness" of financial conditions across the world's major economies, incorporating variables that directly affect spending on domestically produced goods and services. FCIs can provide valuable information about the economic growth outlook and the direct and indirect effects of monetary policy on real economic activity.

FCIs for the G10 economies are calculated as a weighted average of a policy rate, a long-term risk-free bond yield, a corporate credit spread, an equity price variable, and a trade-weighted exchange rate; the Euro area FCI also includes a sovereign credit spread. The weights mirror the effects of the financial variables on real GDP growth in our models over a one-year horizon. FCIs for emerging markets are calculated as a weighted average of a short-term interest rate, a long-term swap rate, a CDS spread, an equity price variable, a trade-weighted exchange rate, and—in economies with large foreign-currency-denominated debt stocks—a debt-weighted exchange rate index.

For more, see our FCI page, Global Economics Analyst: Our New G10 Financial Conditions Indices, 20 April 2017, and Global Economics Analyst: Tracking EM Financial Conditions – Our New FCIs, 6 October 2017.

Goldman Sachs Analyst Index (GSAI)

The US GSAI is based on a monthly survey of GS equity analysts to obtain their assessments of business conditions in the industries they follow. The results provide timely "bottom-up" information about US economic activity to supplement and cross-check our analysis of "top-down" data. Based on analysts' responses, we create a diffusion index for economic activity comparable to the ISM's indexes for activity in the manufacturing and nonmanufacturing sectors.

Macro-Data Assessment Platform (MAP)

GS MAP scores facilitate rapid interpretation of new data releases for economic indicators worldwide. MAP summarizes the importance of a specific data release (i.e., its historical correlation with GDP) and the degree of surprise relative to the consensus forecast. The sign on the degree of surprise characterizes underperformance with a negative number and outperformance with a positive number. Each of these two components is ranked on a scale from 0 to 5, with the MAP score being the product of the two, i.e., from -25 to +25. For example, a MAP score of +20 (5;+4) would indicate that the data has a very high correlation to GDP (5) and that it came out well above consensus expectations (+4), for a total MAP value of +20.

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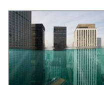

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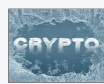

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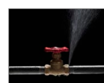

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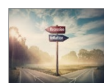

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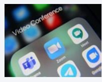

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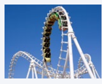

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Reg AC

We, Allison Nathan, Jenny Grimberg, Ashley Rhodes, Michael Cahill, Lily Calcagnini, Kevin Daly, Jan Hatzius, Lexi Kanter, David Kostin, Peter Oppenheimer, Alec Phillips, and Kamakshya Trivedi, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

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