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US Economics Analyst

2025 US Economic Outlook: New Policies, Similar Path (Mericle)

- On the eve of a change in government, the US economy is in a good place. GDP growth is on track to easily exceed consensus expectations again in 2024, recession fears have diminished, inflation is trending back toward 2%, and the labor market has rebalanced but remains strong.
- The Republican sweep in the recent elections will likely bring policy changes in three key areas. First, we expect tariff increases on imports from China and autos that raise the effective tariff rate by 3-4pp. Second, we expect tighter policy to lower net immigration to 750k per year, moderately below the pre-pandemic average of 1mn per year. Third, we expect full extension of the expiring 2017 tax cuts and modest additional tax cuts. These changes are significant, but we do not expect them to substantially alter the trajectory of the economy or monetary policy.
- Their impact might appear most quickly in the inflation numbers. With wage pressures cooling, inflation expectations back to normal, and the catch-up inflation that accounts for much of the remaining overshoot of the target fading, we expect core PCE inflation net of tariff effects to fall to 2.1% by the end of 2025. The tariffs we expect would boost this to 2.4%, though this would be a one-time price level effect that would be at least partly identifiable in the category details.
- The policy changes should have roughly offsetting effects on GDP over the course of the next two years, but the drag from tariffs and reduced immigration will likely appear earlier in 2025, while tax cuts will likely boost spending with a longer delay. Despite this, we expect GDP growth to beat expectations again in 2025 at 2.4% on a Q4/Q4 basis or 2.5% on a full-year basis. Consumer spending should remain the core pillar of strong growth, supported both by rising real income driven by a solid labor market and by an extra boost from wealth effects. And business investment should pick back up even as the factory-building boom fades, fueled by spending on equipment for those new factories and for AI, tax incentives, rising confidence, and lower rates.
- We expect the Fed to continue delivering consecutive rate cuts through Q1 before slowing the pace toward the end of the cutting cycle. We are penciling in a terminal rate of 3.25-3.5%, 100bp higher than last cycle, both because we expect the FOMC to continue to nudge up its estimate of the neutral rate and

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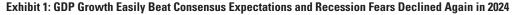
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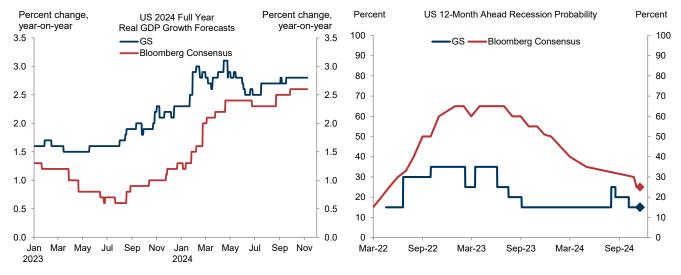
Jessica Rindels +1(972)368-1516 | jessica.rindels@gs.com Goldman Sachs & Co. LLC because non-monetary policy tailwinds, especially large fiscal deficits and resilient risk sentiment, are offsetting the impact of higher interest rates on demand.

Our 12-month recession probability remains low at 15%, roughly the historical average, but we would highlight two risks for the US economy and US markets. The first is the proposed 10% universal tariff, which would be many times the size of the China-focused tariffs that unnerved markets in 2019 and would likely boost inflation to a peak of just over 3% and hit GDP growth harder. The second is the risk that markets could become concerned about fiscal sustainability at a time when the debt-to-GDP ratio is nearing an all-time high, the deficit is much wider than usual, and real interest rates across the curve are much higher than policymakers anticipated last cycle.

2025 US Economic Outlook: New Policies, Similar Path

On the eve of a change in government, the US economy is in a good place. GDP growth is on track to easily exceed start-of-the-year consensus expectations once again in 2024 (Exhibit 1, left), and recession fears have faded as the downside risks that had worried markets failed to materialize (Exhibit 1, right).





Source: Goldman Sachs Global Investment Research, Bloomberg

Concerns arose about both sides of the Fed's dual mandate this year, but the recent news has been reassuring. On the inflation side, firm prints at the start of the year that sparked fear of reacceleration now look instead like residual seasonality. Core PCE inflation has returned most of the way to the 2% target, and much of the remaining overshoot just reflects lagged catch-up effects, especially in housing (Exhibit 2). While it will likely end the year somewhat higher than initially expected, much of the upside surprise reflects the effect of a booming stock market on investment fees included in the financial services component, rather than firmer underlying cost pressures.

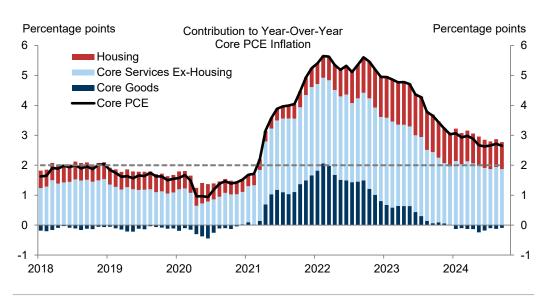
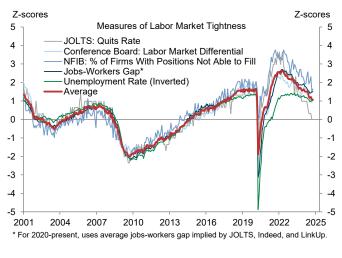


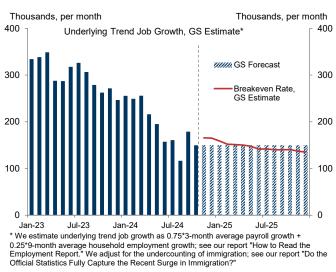
Exhibit 2: Core Inflation Has Returned Most of the Way to 2%, and Most of the Remaining Overshoot Reflects Lagged Catch-up Effects, Especially in the Housing Category, or the Impact of Rising Stock Prices

Source: Goldman Sachs Global Investment Research, Department of Commerce

On the employment side, the rise in the unemployment rate this summer raised concern about whether labor market rebalancing would go too far. But we attribute the increase mainly to short-term frictions associated with absorbing rapid labor force growth caused by the immigration surge, not to weak labor-demand —after all, job openings are high and the layoff rate is low. While we have yet to see definitive evidence of labor market stabilization (Exhibit 3, left), trend job growth appears to be strong enough to stabilize and eventually lower the unemployment rate now that immigration is slowing (Exhibit 3, right).

Exhibit 3: The Labor Market Has Rebalanced to a Point Slightly Softer Than in 2019, but Labor Demand Should Be Strong Enough to Prevent Further Softening Now That the Immigration Surge Is Slowing





Source: Goldman Sachs Global Investment Research, The Conference Board, NFIB, Department of Labor

Policy Changes After the Republican Sweep: Tariffs, Immigration, and Tax

Cuts

The Republican sweep in the recent elections will likely bring policy changes in three key areas.

First, we expect President-elect Trump to increase tariff rates on imports from China by average of 20pp—less for consumer goods and as much as 60pp for non-consumer goods—and to impose some additional tariffs on auto imports (Exhibit 4). The China-focused tariffs are likely to draw from the lists of goods created during his first term and could be imposed fairly quickly. While Trump has also proposed a universal 10-20% tariff on all imports, we see this as a serious risk but not the baseline.

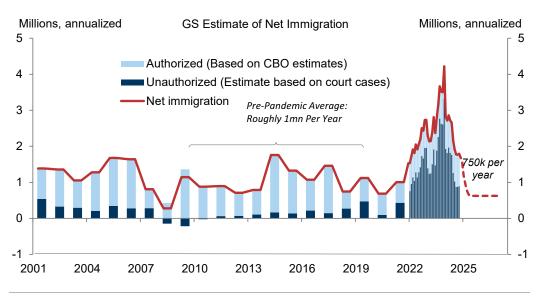
Exhibit 4: We Expect a 20pp Average Increase in the Tariff Rate on Imports from China as Well as New Tariffs on Autos; a Universal 10% or Higher Tariff Is a Serious Risk but Not Our Baseline

GS Odds: If Trump Wins US Election	Country	Coverage	Amount (\$bn)	Current Tariff	Incremental Tariff	Possible Final Tariff	Legal Authority		
90%	China	Lists 1-2 (no consumer goods)	40	25%	60%	85%			
		List 3 (20% consumer)	120	25%	35%	60%	Sec. 301		
		List 4a (mostly consumer)	90	7.5%	10%	17.5%	360.301		
		List 4b (mostly consumer)	200	0%	5%	5%			
70%	Mexico	Auto Imports (Electric Vehicles from Chinese Producers)	Very small	0-2.5%	97.5%	100%	Sec. 232		
50%	EU	Auto Imports	80	2.5%	22.5%	25%	Sec. 232		
40%	Global	All Imports	3100	2.7%	10%	12.7%	IEEPA or Sec. 122		
30%	China	All Imports	450	13.7%	40%	53.7%	Revoke Permanent Normal Trade Relations (requires legislative action)		
10%	Global	All Imports	3100	2.7%	TBD	TBD	Fair and Reciprocal Trade Act (requires legislative action)		

Source: Goldman Sachs Global Investment Research

Second, we expect that the new administration will tighten immigration policy and Congress will increase enforcement resources. Net immigration into the US averaged about 1mn per year before the pandemic, reached about 3mn in 2023, and has declined to an annualized rate of about 1.75mn recently. We expect it to fall further in 2025 to a pace of 750k per year. Our forecast is only moderately below the pre-pandemic trend because there are legal and logistical limits to executive action.

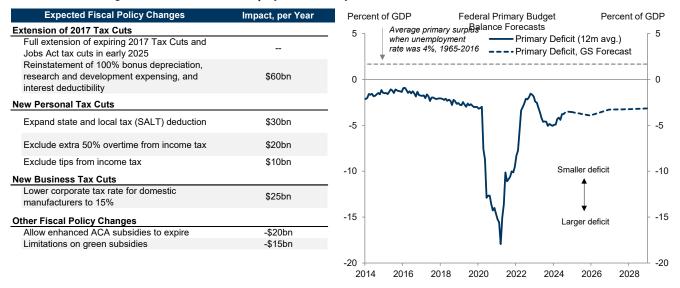
Exhibit 5: Net Immigration Reached 3mn in 2023 but Has Already Fallen to a Roughly 1.75mn Pace, and We Expect It to Fall Further to 750k Per Year, Moderately Below the Pre-Pandemic Average of 1mn Per Year



Source: Goldman Sachs Global Investment Research, Congressional Budget Office, Transactional Records Access Clearinghouse

Third, on the fiscal side, we expect full extension of the 2017 tax cuts that expire at the end of 2025, including reinstatement of some expired business investment incentives, as well as modest additional personal tax cuts worth about 0.2% of GDP to accommodate some of Trump's campaign proposals (Exhibit 6). We also expect federal spending growth to rise somewhat, particularly on defense.

Exhibit 6: We Expect Full Extension of the Expiring 2017 Tax Cuts and Some Additional Personal Tax Cuts, Which Would Keep the Primary Fiscal Deficit Much Larger Than Is Usual in a Full Employment Economy



Source: Goldman Sachs Global Investment Research, Congressional Budget Office

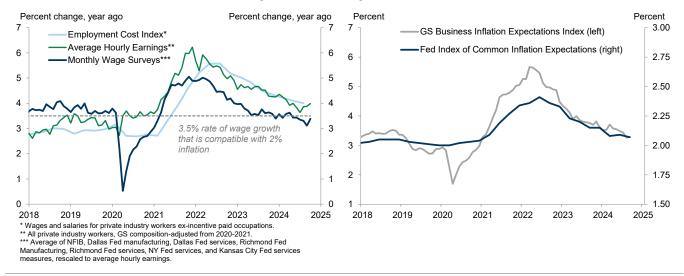
These policy changes are significant, but we do not expect them to substantially alter the trajectory of the economy or monetary policy because their effects are likely to be moderate and in some cases offsetting. Policy changes are likely in other areas too, including a lighter-touch approach to regulation — particularly with regard to energy, financial, and labor policies—but the effects should be felt mainly at an industry level rather than a macroeconomic level.

Inflation: A Moderate Tariff Boost to a Falling Underlying Trend

The impact of these policy changes might become visible most quickly in the inflation numbers.

The fundamentals have been in place for inflation to return to the 2% target since late last year, when the labor market returned to roughly the balance needed for wage pressures to cool sufficiently, and both consumer and business inflation expectations approached normal levels (Exhibit 7).

Exhibit 7: With the Labor Market Back in Balance, Wage Growth Falling, and Inflation Expectations Back to Normal, the Fundamental Drivers Are in Place for Inflation to Continue Trending Back to the 2% Target



Source: Goldman Sachs Global Investment Research, Department of Labor, Federal Reserve Board

While inflation is still above 2% and wage growth is still above the 3.5% rate that we estimate would be compatible with the inflation goal, much of the remaining overshoot in both cases is due to lagged catch-up that finally appears to be nearly exhausted. On the price side, official housing prices have nearly caught up to new tenant market rents in level terms and should continue to converge toward the low growth rate they have run at for the last two years (Exhibit 8). Catch-up in government-regulated prices also appears nearly over. On the wage side, catch-up has kept wage growth much higher recently for union members, who had to wait for their longer contracts to expire, but the gap is now much narrower.

As a result, we expect core PCE inflation excluding the impact of tariffs to fall to 2.1% by the end of 2025.

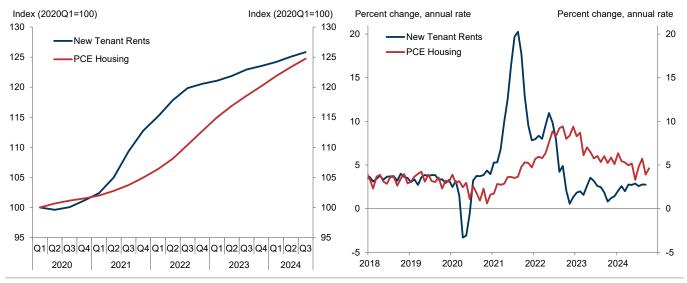
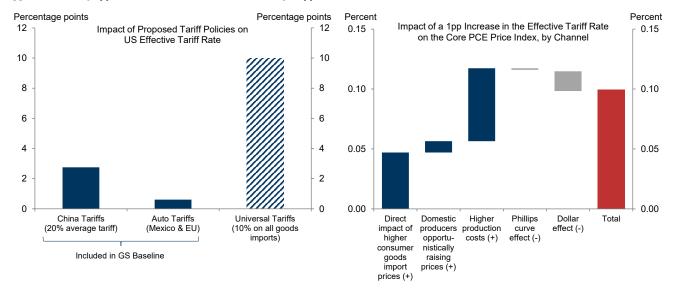


Exhibit 8: Most of the Remaining Overshoot of the 2% Target Just Reflects Lagged Catch-up Effects That Should Continue to Fade Naturally Next Year Because the Catch-Up Is Now Nearly Complete

Source: Goldman Sachs Global Investment Research

How much will tariffs change the picture? The tariffs on China and autos that we expect would raise the effective tariff rate by 3-4pp, while a universal 10% tariff would have roughly triple that effect (Exhibit 9, left). Our analysis of the impact of the tariffs imposed during the first Trump administration suggests that every 1pp increase in the effective tariff rate would raise core PCE prices by 0.1pp (Exhibit 9, right).

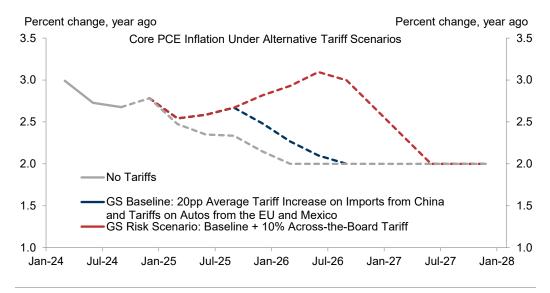
Exhibit 9: The Tariffs on Imports from China and Autos in Our Baseline Would Raise the Effective Tariff Rate by 3-4pp, and Lessons from 2019 Suggest That Every 1pp Increase Raises Core PCE Prices by 0.1pp



Source: Goldman Sachs Global Investment Research

Taken together, this implies that the tariffs in our baseline would raise core PCE inflation by about 0.3-0.4pp next year, leaving it at 2.4% in December 2025 (Exhibit 10). Tariffs would have only a moderate and one-time effect that should not prevent inflation from continuing to fall, and their impact should be fairly easily identifiable in the component details, at least for tariffs on consumer goods. For all of these reasons, the impact on inflation need not be particularly significant for monetary policy, though this could change if the White House imposes a 10% universal tariff, which would push inflation just above 3%.

Exhibit 10: Tariffs on Imports from China and Autos Would Provide a One-Time 0.3-0.4pp Boost to Core PCE Inflation on Top of a Falling Underlying Trend, While a Universal Tariff Would Have a Larger Impact



Source: Goldman Sachs Global Investment Research

What about the impact of reduced immigration? While it might put upward pressure on wages and prices in industries that employ a disproportionate share of immigrants, such as construction or food production and services, the impact on aggregate wages and prices should be modest. Immigrants add to both supply and demand, and while we argued earlier this year the surge in mainly low-wage immigrant workers likely played a modest supporting role in dampening wage pressures amidst the tightest peacetime labor market in US history in 2022, the labor market is now in a more normal balance.

Another Year of Above-Trend and Above-Consensus GDP Growth

The policy changes included in our baseline forecast should have only modest and roughly offsetting effects on GDP over the course of the next two years, though some will appear earlier than others. The drag on growth from higher tariffs—which function like a tax, create uncertainty for businesses, and are likely to cause a tightening in financial conditions—and from reduced immigration will likely appear earlier in 2025. The boost to business investment from tax incentives and confidence might also appear quickly because many businesses likely already anticipate the changes. But the consumption boost from personal tax cuts will likely take longer to materialize because it will take more time to pass legislation.

We estimate that the net effect would be a drag on GDP growth of about 0.2pp over the course of 2025, followed by a similar boost in 2026 (Exhibit 11, left). In the alternative risk case where the White House also imposes a universal 10% tariff, likely with a longer delay, the hit to GDP growth would be larger, even if Congress passed additional tax cuts similar in size to the tariff revenue (Exhibit 11, right).

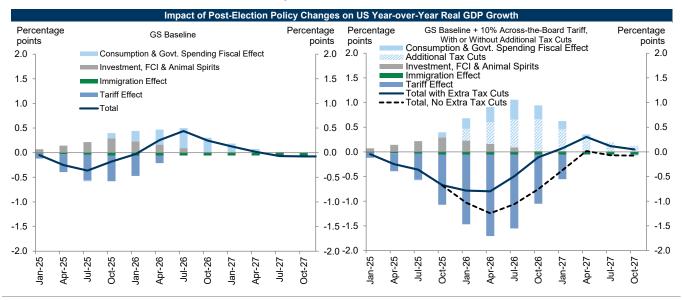


Exhibit 11: The Effects of Tariffs and Tax Cuts on GDP Should Be Roughly Offsetting, but the Growth Hit from Tariffs Would Likely Come Earlier in 2025, While the Boost from Tax Cuts Would Likely Come Later

Source: Goldman Sachs Global Investment Research

Despite the more front-loaded drag from tariffs, we expect GDP growth to beat expectations again in 2025 at 2.4% on a Q4/Q4 basis or 2.5% on a full-year basis (Exhibit 12). Our 2.4% forecast is somewhat above our roughly 2% estimate of potential GDP growth. The economy was able to grow faster than that over the last two years in part because the immigration surge boosted labor force growth, and in 2025 reabsorbing labor market slack—we forecast a ¼pp decline in the unemployment rate, which is now about ½pp above its pre-pandemic rate—can replace the role of elevated immigration. Productivity growth has also been slightly stronger so far this cycle, though it is too early to draw strong conclusions.

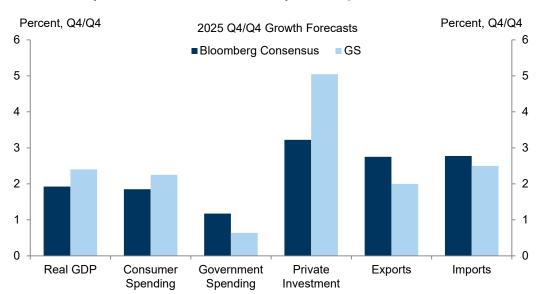


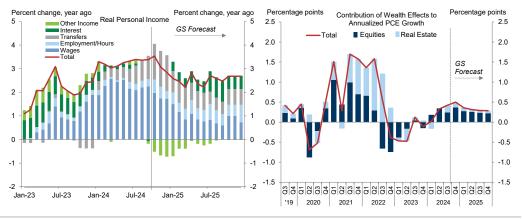
Exhibit 12: We Expect GDP Growth to Beat Consensus Expectations Again in 2025

Consumer spending should remain the core pillar of strong GDP growth in 2025. A

Source: Goldman Sachs Global Investment Research, Bloomberg

healthy labor market should keep real income growing at a solid pace of about 2.5% across the income distribution next year (Exhibit 13, left), and high and rising household wealth should provide an extra boost to spending and provide a buffer against negative income shocks (Exhibit 13, right). We continue to think that common fears about the consumer are overblown. For example, the low end is not doing poorly, delinquency rates rose more because of inadvertently risky lending than weak household finances and should stabilize, and the saving rate is roughly in line with its fundamental drivers and should rise only modestly.

Exhibit 13: Solid Consumer Spending Growth Should Remain the Core Pillar of GDP Growth, Supported by Robust Growth in Real Income Driven by a Healthy Labor Market and an Added Boost from Wealth Effects



Source: Goldman Sachs Global Investment Research

Business investment has been supported in recent quarters by delayed Boeing shipments but has otherwise been fairly weak as the factory-building boom that powered capex growth last year plateaued. We expect it to pick back up in 2025, fueled by spending on equipment for those new factories and for AI, the reinstatement of tax incentives, rising confidence, and lower short-term rates that matter for small business borrowing (Exhibit 14). On the negative side, lessons from the last trade war suggest that tariffs will weigh on investment by raising input costs, prompting foreign retaliation against US exports, and creating uncertainty about the risk of further escalation. Taken together, we forecast roughly flat business investment growth in Q4 before a gradual rebound to just over 5% in 2025 on a Q4/Q4 basis.

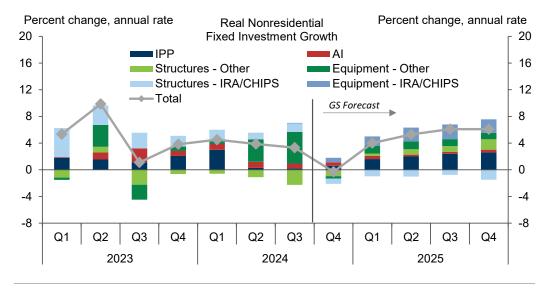
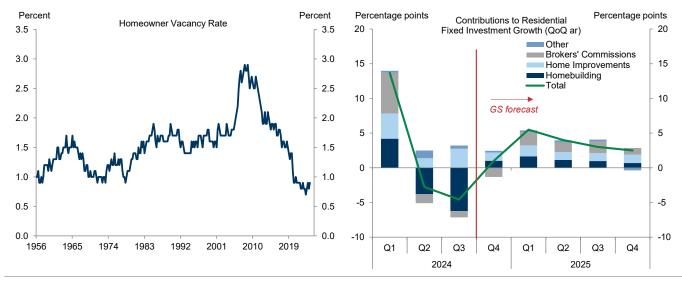


Exhibit 14: Investment in Equipment for New IRA and CHIPS Act Factories and for Artificial Intelligence, Tax Incentives, Rising Confidence, and Lower Short-Term Interest Rates Should Fuel Solid Capex Growth

Source: Goldman Sachs Global Investment Research

Residential investment presents a more mixed picture. We expect single-family homebuilding to remain elevated but multi-family to remain weak because the single-family market is still very tight, while the multifamily market is more balanced and there is a large backlog of multifamily units under construction. High mortgage rates that are still well above the rates that most mortgage borrowers are paying will keep existing home sales weak next year too. But families locked into homes that no longer suit them by low mortgage rates who have high home equity and now face lower borrowing rates are more likely to increase spending on renovations. Overall, we forecast 3.8% growth in residential investment in 2025.

Exhibit 15: Single-Family Homebuilding Should Outperform Multifamily Because the Single-Family Market Is Much Tighter, and Mortgage Lock-In Will Continue to Depress Existing Home Sales and Brokers' Commissions but Should Boost Renovations

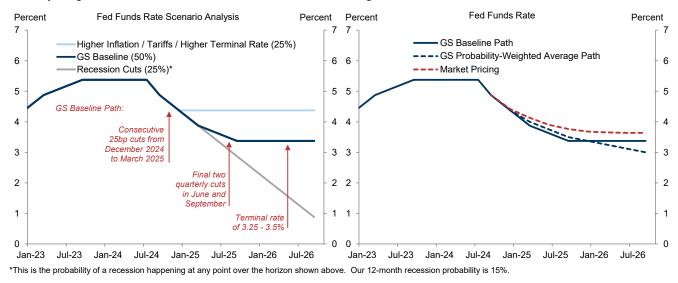


Source: Goldman Sachs Global Investment Research, Department of Commerce

Rate Cuts: A Slower Pace Down the Road as the FOMC Rethinks Neutral

We expect the FOMC to deliver consecutive rate cuts through Q1 before slowing the pace toward the end of the cutting cycle in 2025Q2 and Q3 (Exhibit 16). We expect consecutive cuts for now because we think the FOMC will wait to slow the pace until it gets closer to its estimate of neutral and sees several months of labor market stabilization, which does not yet look entirely convincing (left side of Exhibit 3 above). However, recent comments from Fed officials raise the risk that they could slow the pace sooner.

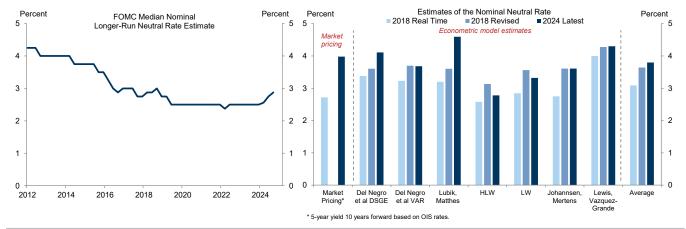
Exhibit 16: We Expect Further Consecutive Rate Cuts for Now Followed by a Slower Pace Toward the End of the Cutting Cycle; Our Probability-Weighted Fed Forecast Is a Bit More Dovish Than Market Pricing



Source: Goldman Sachs Global Investment Research

We are penciling in a terminal rate of 3.25-3.5%, 100bp higher than last cycle, both because we expect the FOMC to continue to nudge up its estimate of the neutral rate and because non-monetary policy tailwinds are offsetting the impact of higher interest rates on demand, especially unusually large fiscal deficits and resilient risk sentiment that has limited the transmission to broader financial conditions.





Source: Goldman Sachs Global Investment Research, Federal Reserve

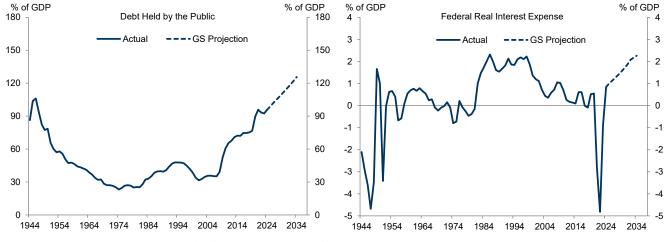
Risks for the Economy and Markets in 2025

Our 12-month recession probability remains low at 15%, roughly the historical average, but we would highlight two risks for the US economy and US markets in 2025.

The first is Trump's proposed 10%-20% universal tariff, which would be many times the size of the China-focused tariffs that unnerved markets in 2019. We estimate that a 10% universal tariff would raise inflation to around 3% at the peak (Exhibit 10 above), though this would still be a one-time effect, and would shave as much as 0.75-1.25pp off GDP growth, depending on whether it was offset by additional tax cuts (the right side of Exhibit 11 above). The implications for monetary policy would be two-sided—in 2019, the FOMC prioritized the growth risk and cut the funds rate by 75bp.

The second risk is that markets could become concerned about fiscal sustainability at a time when the debt-to-GDP ratio is approaching a new all-time high, the deficit is about 5% of GDP wider than it has historically been when the economy was at full employment, and real interest rates across the curve are much higher than policymakers anticipated last cycle. The topic arises increasingly frequently in markets, and any increase in concern that pushed bond yields higher would come at a time when high asset valuations could make markets more vulnerable than usual.





Note: We assume a baseline nominal interest rate of 3.5% and nominal growth rate of 4%. We assume that recessions occur once per decade on average and result in a 5pp cumulative increase in the primary deficit. We assume that interest rates increase by 1bp for every 1pp increase in the debt-to-GDP ratio.

Source: Goldman Sachs Global Investment Research, Department of the Treasury

David Mericle

The US Economic and Financial Outlook

(% change on previous period, annualized, except where noted)

								202		2025				
	2022	2023	2024	2025	2026	2027	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
OUTPUT AND SPENDING														
Real GDP	2.5	2.9	2.8	2.5	2.3	2.1	1.6	3.0	2.8	2.5	2.4	2.4	2.4	2.4
Real GDP (annual=Q4/Q4, quarterly=yoy)	1.3	3.2	2.5	2.4	2.2	2.1	2.9	3.0	2.7	2.5	2.7	2.5	2.4	2.4
Consumer Expenditures	3.0	2.5	2.7	2.5	2.3	2.1	1.9	2.8	3.7	2.8	2.0	2.3	2.3	2.4
Residential Fixed Investment	-8.6	-8.3	3.9	2.2	3.0	2.4	13.7	-2.8	-5.2	2.5	5.5	4.0	3.0	2.5
Business Fixed Investment	7.0	6.0	3.7	3.6	5.3	4.0	4.5	3.9	3.3	-0.9	4.0	5.3	6.1	6.1
Structures	3.6	10.8	3.2	-1.6	2.2	3.0	6.2	0.2	-4.1	-3.6	-2.0	-0.5	1.0	1.0
Equipment	4.4	3.5	3.9	7.0	6.7	3.6	0.3	9.9	11.1	-0.9	7.5	9.0	9.0	8.5
Intellectual Property Products	11.2	5.8	3.6	3.3	5.7	4.9	7.5	0.7	0.6	0.6	4.0	5.0	6.0	6.5
Federal Government	-3.2	2.9	2.4	1.5	0.0	0.6	-0.4	4.3	9.7	0.0	0.2	0.0	0.0	0.0
State & Local Government	0.2	4.4	3.8	1.4	1.0	1.3	3.1	2.3	2.3	2.1	1.0	1.0	1.0	1.0
Net Exports (\$bn, '17)	-1,042	-933	-1.036	-1.080	-1,129	-1.174	-977	-1,036	-1,077	-1.055	-1.069	-1.074	-1.083	-1.095
Inventory Investment (\$bn, '17)	119	33	53	73	63	61	18	72	60	61	80	75	70	65
Nominal GDP	9.8	6.6	5.2	4.9	4.2	4.0	4.7	5.6	4.7	4.8	5.0	5.1	4.7	4.0
Industrial Production, Mfg.	2.7	-0.5	-0.3	2.8	3.4	2.9	-0.9	1.4	-0.7	2.4	3.8	3.8	3.7	3.6
HOUSING MARKET							1				1			
Housing Starts (units, thous)	1,552	1,421	1.352	1.413	1,479	1,491	1.407	1.340	1,326	1,334	1.365	1,403	1,431	1,454
New Home Sales (units, thous)	637	666	701	748	757	800	663	693	724	722	734	737	757	763
Existing Home Sales (units, thous)	5.087	4.101	3.978	4.090	4.188	4.570	4.200	4.050	3.893	3.767	3.919	4,038	4.160	4,244
Case-Shiller Home Prices (%yoy)*	7.5	5.3	3,370	4.4	4.8	4.8	6.4	-,050	3.9	3.2	3.2	4,000	4.1	4.4
()),	1.0	0.0	0.2	4.4	4.0	4.0		0.0	0.0	0.2	1 0.2	0		
INFLATION (% ch, yr/yr)														
Consumer Price Index (CPI)**	6.4	3.3	2.6	2.5	2.3	2.2	3.2	3.2	2.6	2.6	2.3	2.3	2.6	2.5
Core CPI **	5.7	3.9	3.1	2.7	2.3	2.3	3.8	3.4	3.2	3.2	2.9	2.8	3.0	2.7
Core PCE** †	5.0	3.0	2.8	2.4	2.0	2.0	3.0	2.7	2.7	2.8	2.6	2.6	2.6	2.4
LABOR MARKET							1							
Unemployment Rate (%) [^]	3.5	3.7	4.1	3.9	3.8	3.7	3.8	4.1	4.1	4.1	4.0	4.0	3.9	3.9
U6 Underemployment Rate (%) ^A	6.5	7.1	7.7	7.3	7.1	6.9	7.3	7.4	7.7	7.7	7.5	7.4	7.4	7.3
Payrolls (thous, monthly rate)	377	251	167	150	128	98	267	147	148	104	150	150	150	150
Employment-Population Ratio (%) [^]	60.1	60.1	60.1	60.1	60.1	60.0	60.0	59.8	60.0	59.8	60.1	60.1	60.1	60.1
Labor Force Participation Rate (%) [^]	62.3	62.5	62.6	62.5	62.5	62.3	62.7	62.6	62.7	62.6	62.6	62.6	62.6	62.5
Average Hourly Earnings (%yoy)	5.4	4.5	3.9	3.4	3.3	3.2	4.2	3.9	3.8	3.7	3.5	3.5	3.4	3.3
GOVERNMENT FINANCE							l I				1			
Federal Budget (FY, \$bn)	-1,376	-1,694	-1,833	-1,800	-1,950	-2,100	-							
FINANCIAL INDICATORS							1							
FF Target Range (Bottom-Top, %)^	4.25-4.5	5 25-5 5	4 25-4 5	3.25-3.5	3 25-3 5	3 25-3 5	5.25-5.5	5.25-5.5	4.75-5	4.25-4.5	3 75-4	3.5-3.75	3.25-3.5	3 25-3 5
10-Year Treasury Note^	3.88	3.88	4.25	4.10	4.10	4.10	4.20	4.36	3.81	4.25	4.20	4.15	4.10	4.10
Euro (€/\$)^	1.07	1.11	4.25	1.03	1.06	4.10	1.08	4.30	1.11	4.25	1.05	1.05	1.06	1.03
Yen (\$/¥)^	132	141	1.05	1.03	1.00	132	1.00	161	143	1.05	1.03	1.05	1.00	1.03
tell (\$/≢)	132	141	156	159	145	132	151	101	143	150	158	15/	158	159

* Weighted average of metro-level HPIs for 381 metro cities where the weights are dollar values of housing stock reported in the American Community Survey. Annual numbers are Q4/Q4. ** Annual inflation numbers are December year-on-year values. Quarterly values are Q4/Q4. † PCE = Personal consumption expenditures. ^ Denotes end of period. Note: Published figures in bold.

Source: Goldman Sachs Global Investment Research

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We, Jan Hatzius, Alec Phillips, David Mericle, Ronnie Walker, Manuel Abecasis, Elsie Peng and Jessica Rindels, 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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