RESEARCH



July 29, 2025 05:06 PM GMT

## US Economics | North America

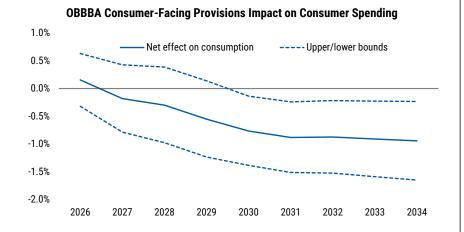
# Impacts of OBBBA on Consumer Spending and Cohorts

We expect a slight boost to consumer spending in 2026 from the fiscal bill, but larger drags on spending in 2027 and beyond. Older and higher-income cohorts will benefit most, while spending cuts will negatively impact low-income consumers. We provide details on each new consumer provision.

#### **Key Takeaways**

- We expect the consumer provisions of the bill to add ~15bp to spending in 2026, a relatively small impact compared to drags from trade and immigration policy.
- Later on, as tax cuts expire and spending cuts to Medicaid and other transfers grow, the bill drags on consumption.
- Deductions for seniors and an increase in the SALT cap should benefit older and high-income consumers, who are not as impacted by spending cuts.
- Cuts to SNAP, Medicaid, and student loans will negatively affect low- and middleincome consumers. Near-term, tax cuts provide an offset for middle-income.

**Exhibit 1:** We expect a small, ~15bp, boost to nominal spending in 2026 from the bill, but negative impacts in 2027 and beyond



Note: Upper/lower bounds determined using different estimates of multipliers. Source: CBO, Morgan Stanley Research

MORGAN STANLEY & CO. LLC

#### Heather Berger

Heather.Berger@morganstanley.com +1 212 761-2296

#### Michael T Gapen

Chief US Economist

Michael.Gapen@morganstanley.com +1 212 761-0571

#### Diego Anzoategui

+1 212 761-8573 Diego.Anzoategui@morganstanley.com

#### Arunima Sinha

Global Economist

Arunima.Sinha@morganstanley.com +1 212 761-4125

#### Sam D Coffin

Sam.Coffin@morganstanley.com +1 212 761-4630

#### Lenoy Dujon

+1 212 761-2779 Lenoy.Dujon@morganstanley.com

#### Ariana Salvatore

Strategist

Ariana.Salvatore@morganstanley.com

#### Bradley Tian

Bradley.Tian@morganstanley.com +1 212 761-0826



Extel Global Fixed Income Poll is now open. We hope you have enjoyed our research over the past year and appreciate your support. Request your ballot.

Morgan Stanley does and seeks to do business with companies covered in Morgan Stanley Research. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of Morgan Stanley Research. Investors should consider Morgan Stanley Research as only a single factor in making their investment

For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this

# Slight Boost to Spending in 2026, but Negative Impacts After

The One Big Beautiful Bill Act should add around 40bps to US GDP growth in 2026, but most of this boost comes from defense spending and the corporate side. On the consumer spending front, we see the potential for a small boost in 2026, around ~15bps to nominal spending. However, with tax cuts frontloaded and spending cuts backloaded, the bill is a drag on spending from 2027 on, which has a larger magnitude than the initial boost. Multipliers of the bill are also unfavorable, given spending cuts of transfers to low-income consumers will have larger effects.

As detailed below, we expect older and high-income individuals to benefit most from the bill, while low-income individuals will be negatively impacted. Meanwhile, the overall boost to consumption in 2026 is small relative to the drag on consumption from trade and immigration policy. This informs our view that growth in US economic activity will slow, but the more limited hit from these policy changes to upper income households means the economy can avoid a recession.

In the Overview of New Consumer Facing Provisions section, we lay out the details of each provision. While corporate tax changes could indirectly impact consumption as well, for the purposes of this note, we focus on the largest new individual provisions of the bill: deductions for tips and overtime, deductions for seniors, deductions for car loan interest, increase in the SALT cap, spending cuts to SNAP and Medicaid, changes to student loans, and removal of IRA tax credits (Exhibit 2).

**Exhibit 2:** Estimated costs/savings of OBBBA new consumer-facing provisions

SBn SBn	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
	Expansio	nary measu	res (cost, ir	\$bn)						
Tips deduction	0	-10	-8	-8	-5	0	0	0	0	0
Overtime deduction	0	-33	-26	-23	-8	0	0	0	0	0
Enhanced deduction for seniors	-9	-23	-23	-23	-14	0	0	0	0	0
Car loan interest deduction	-2	-5	-8	-10	-5	0	0	0	0	0
SALT	-5	-34	-29	-30	-32	-17	5	0	0	0
	Contraction	nary measur	es (savings	, in \$bn)						
Changes to Medicaid	1	25	65	88	116	133	153	164	180	198
Changes to Student Loans	150	14	15	15	15	15	15	16	16	16
Changes to SNAP	0	7	13	13	13	12	12	15	15	15
Repal of residential solar & EV tax credits	1	2	12	19	23	25	28	11	12	11

Note: CBO scoring on a "current policies" baseline and does not include total debt accumulation from extending provisions in the TCJA. ary measures cited as negative given the impact on the deficit. Source: CBO, Morgan Stanley Research.

# **Net Effects on Consumption**

In order to determine the impact on spending, we need to consider the fiscal multipliers of each provision. Fiscal multipliers are typically a concept for GDP, defining how much GDP increases for every \$1 of fiscal expansion. However, we can use multipliers here to estimate the impact to consumption given that most of the GDP impact from these provisions will be through consumption.

In general, spending cuts have larger multipliers than tax cuts because changes to spending typically have a more immediate and larger impact on demand. For example, consider transfer payments to low-income consumers, such as SNAP or Medicaid. Low-income consumers have higher marginal propensities to consume, so they are more likely to spend any incremental income quickly, which will then permeate through the economy.

3

On the tax cut side, the cohorts each provision is aimed at will determine the multipliers. Since the increase in the SALT cap will mostly benefit high-income consumers, who have a lower marginal propensity to consume, the multiplier there is smaller than that of the deductions for tips and overtime (Exhibit 3).

There are large ranges for each multiplier, reflecting the lack of precision in these estimates and the fact that multipliers are dependent on the cyclical position of the economy and the assumed response of monetary policy. We think using the midpoint is the right metric given the state of the business cycle and the stance of monetary policy. Given that the personal tax cuts in the bill are frontloaded and some of the spending cuts are backloaded, the net impact to consumption is positive in 2026. We estimate the bill could add 15bp to nominal personal consumption next year.

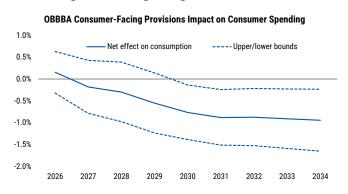
However, in every year from 2027 and beyond, the impact is negative, and with much larger magnitude. The drag becomes more extreme starting in 2029, once the tax cuts expire, but even in 2027 we estimate a drag of 18bp to nominal spending. Assuming the tax cuts roll off as currently written in the bill, the impact to consumption from 2030 on is negative even when using the most favorable multipliers (Exhibit 4).

**Exhibit 3:** Multipliers of consumer facing provisions

	Low	Midpoint	High				
Expansionary measures							
Tips deduction	0.3	0.9	1.5				
Overtime deduction	0.3	0.9	1.5				
Enhanced deduction for seniors	0.3	0.9	1.5				
Car loan interest deduction	0.3	0.9	1.5				
SALT	0.2	0.6	1.0				
Contractionary measures							
Changes to Medicaid	0.4	1.3	2.1				
Changes to Student Loans	0.4	1.3	2.1				
Changes to SNAP	0.4	1.3	2.1				
Repeal or modification of clean energy provisions	0.1	0.4	0.6				

Source: CBO, Morgan Stanley Research

**Exhibit 4:** Impact on consumer spending slightly positive in 2026, but negative with larger magnitude after



Note: Upper/lower bounds use the low and high multipliers from Exhibit 3, rather than the midpoints. Source: CBO, Morgan Stanley Research

# **Cohort Impacts**

These net results hide some of the larger impacts to certain cohorts, both positive and negative. Individuals over the age of 65 likely benefit most from the bill. These individuals, if within the income thresholds, will benefit from the senior deduction and by definition will not be affected by the work requirements for SNAP and Medicaid. They also are, in most cases, not impacted by changes to student loans, since individuals over 65 make up less than 10% of outstanding federal loans.

High-income consumers are also positively impacted, as they will not be affected by the cuts to transfer payments, and some of them will benefit from the increase in the SALT cap. While these individuals could be affected by limits to graduate student borrowing, they are not beneficiaries of the income-driven repayment plans that are being changed. These consumers also likely benefit indirectly from changes to corporate taxes, though that is not the focus of this note.

For middle-income consumers, the picture is not as clear. These individuals could benefit

in the near-term from the new deductions on tips and overtime income. However, middle-income consumers, especially younger ones, are also the most exposed to the changes on the student loan front, which could result in higher monthly payments and more expensive borrowing on new loans. In the near term, the impact for this cohort could be net positive, but later on (in 2029 and beyond), the net impact will be negative as the tax cuts expire.

Finally, we think low-income consumers are most negatively impacted by the bill. Spending cuts will affect these individuals most. Third-party estimates suggest that ~10mn individuals could lose access to federal health insurance by 2034, while 2-3mn could lose access to SNAP benefits. Income from transfer payments makes up ~20% of income for the bottom 10% of earners, so any reduction here would be meaningful. Meanwhile, many of these consumers likely already do not pay federal income taxes, given the standard deduction and other credits, so they would not benefit much from the new deductions. The increase in the child tax credit will help on the margin, but it is small relative to most of the new spending and tax cuts. These changes are also beginning at a time when we expect low-income consumers to be most negatively impacted by higher inflation from tariffs.

**Exhibit 5:** Cohort impacts of new consumer-facing provisions

Provision	Relative Magnitude	Cohort Benefitted Most	Cohort Hurt Most	Years in effect
Changes to Medicaid	High		Low-income	2026 and beyond, greater impact later
Changes to Student Loans	High		Middle-income, younger	2026 and beyond, greater impact later
Changes to SNAP	High		Low-income	2026 and beyond, greater impact later
SALT	Medium	High-income, homeowners		2025 - 2029
Enhanced deduction for seniors	Medium	Older, middle-income		2025 - 2028
Overtime deduction	Medium	Middle-income		2025 - 2028
Repeal of residential solar & EV tax credits	Low		High-income, homeowners	2026 and beyond
Tips deduction	Low	Middle-income		2025 - 2028
Car loan interest deduction	Low	Middle-income		2025 - 2028

Note: Relative magnitude is based on the size of these provisions from 2025-2034 using the CBO's estimates of costs/savings, combined with CBO estimated multipliers. Source: CBO, Morgan Stanley Research

# Small 2026 Impact Relative to Other Policy Changes

We expect real consumption growth to slow from 3.1% in 2024 (4Q/4Q) to 0.6% in 2025 and 0.7% in 2026, and nominal consumption to slow from 5.7% to 3.6% and 2.9%. This slowdown in consumption is largely driven by trade and immigration policy; slower immigration leads to less growth in labor market income, while tariffs act as a tax on consumption, weighing on consumer purchasing power. Overall, the potential 15bp boost to nominal consumption in 2026 from the bill is small compared to the negative impacts of these other changes.

As mentioned above, we used midpoint multipliers in our calculations to estimate the potential spending impacts. However, given we expect a considerable slowdown in the economy, and we view the probability of a downturn around 40%, it is possible the impacts could be larger. If our mild recession scenario occurs, then some of the spending cuts will be more impactful. For example, consider SNAP benefits, which are an automatic stabilizer. In downturns, the amount of individuals eligible for these benefits increases. As a result, the changes to working requirements for SNAP could affect even more individuals than we are factoring in. Similar concepts could apply to the income-driven repayment plans on the student loan front and to Medicaid. If we enter a downturn scenario, the net impact on spending could end up being flat to negative next year as well, closer to the lower bound in Exhibit 4 above.

# Overview of New Consumer Facing Provisions

### Tax Cuts Directly Impacting Consumers

#### **Tips Deduction:**

#### Details:

- Up to \$25k deduction per person for qualifying tips received by workers in occupations that customarily receive tips (these "occupations" are expected to be more clearly defined by October).
- Phases out for higher-income consumers. Phase out begins for incomes above \$150k for single filers and \$300k for joint filers. Completely phased out for incomes greater than or equal to \$450k for single filers and \$550k for joint filers. (The deduction amount is reduced by \$100 for every \$1000 the taxpayer's modified adjusted gross income exceeds these \$150k/\$300k thresholds).
- Effective for tax years 2025 2028.

#### Cohorts Impacted:

- Tipped workers tend to be younger and lower income.
- According to Yale Budget Lab, more than a third of tipped workers in 2022 had incomes low enough that they already did not need to pay federal income taxes.
   Those low-income consumers therefore would not benefit from this.

#### Relative Magnitude:

- CBO cost estimate: \$10bn in 2026, \$31bn altogether.
- In 2023 there were 4mn workers in tipped occupations, or ~2.5% of all employment. Even for workers in the bottom quarter of hourly wages, only 5% were in tipped occupations.
- Behavioral changes, such as substitution into tipped employment and income, can impact the number of individuals who benefit and the cost.

#### **Overtime Deduction:**

#### Details:

- Up to \$12.5k (single filers) or \$25k (joint filers) deduction for qualifying overtime pay.
- Phases out for higher-income consumers. Phase out begins for incomes above \$150k for single filers and \$300k for joint filers. Completely phased out for incomes greater than or equal to \$450k for single filers and \$550k for joint filers. (The deduction amount is reduced by \$100 for every \$1000 the taxpayer's modified adjusted gross income exceeds these \$150k/\$300k thresholds.)

Effective for tax years 2025-2028.

#### Cohorts Impacted:

Similar to the tip deduction, many low-income workers already do not pay federal
income taxes. Middle-income workers who get paid hourly will likely benefit most.

#### Relative Magnitude:

- CBO cost estimate: \$33bn in 2026, \$90bn total.
- Yale Budget Lab estimates 8% of hourly workers and 4% of salaried workers work qualified overtime on a regular basis.
- Behavioral incentives, similar to in the case of tips, on the part of employees or employers can affect total cost and impact.

#### **Car Loan Interest Deduction:**

#### Details:

- Up to \$10k deduction in interest paid on auto loans. Vehicle must be new and final assembly must occur in the US.
- Phases out for higher-income consumers. Phase out begins for incomes above \$100k for single filers and \$200k for joint filers. Completely phased out for incomes greater than or equal to \$150k for single filers and \$250k for joint filers (The deduction amount is reduced by \$200 for every \$1000 the taxpayer's modified adjusted gross income exceeds these \$100k/\$200k thresholds.)
- Effective for tax years 2025-2028.

#### Cohorts Impacted:

 Middle-income consumers will likely benefit most, due to income phaseout and the relatively small share of new vehicle purchases accounted for by low-income consumers.

#### Relative Magnitude:

- CBO cost estimate: \$5bn in 2026, \$31bn total.
- According to JD Power, around 55% of vehicles sold recently had final assembly in the US.
- We expect small impact here: The top 20% income cohort in the most recent data
  accounted for almost 70% of motor vehicles and parts purchases (by \$ amount),
  and likely an even greater share of new vehicle purchases. The income phaseout
  and restriction to assembly in US limit the overall benefit.

#### **Senior Deduction:**

#### Details:

Individuals 65 years or older can claim \$6k deduction per person.

- Phases out for higher-income consumers. Phase out begins for incomes above \$75k for single filers and \$150k for joint filers. Completely phased out for incomes greater than or equal to \$175k single/\$250k joint. (The deduction amount is reduced by 6% of the amount of income exceeding \$75k/\$150k.)
- Effective for tax years 2025 2028.

#### Cohorts Impacted:

• Older, middle-income consumers benefit most.

#### Relative Magnitude:

- CBO cost estimate: \$23bn in 2026, \$92bn total.
- Individuals over 65 make up about 18% of the US population.

#### **SALT Cap Increase:**

#### Details:

- Cap raised from \$10k to \$40k. Cap rises by an additional 1% annually each year until 2029.
- Phases out for high-income consumers. Phase out begins for incomes above \$500k, with this threshold also increasing by 1% each year. Completely phased back to \$10k previous cap for incomes of \$600k or greater in first year. (Deduction amount is reduced by 30% of the amount of income above the \$500k threshold.)
- Effective for tax years 2025-2029. Starting in 2030, cap returns to \$10k for all.

#### Cohorts Impacted:

 Homeowners/high-income consumers in states with high property taxes (NY, NJ, California) benefit most. Others likely do not have enough due in state and local taxes to benefit.

#### Relative Magnitude:

- CBO cost estimate: \$34bn in 2026, \$142bn total.
- While still a relatively large change in the context of these provisions, the income limits lessen the impact significantly. Previous estimates show that a smaller increase in the SALT cap (to \$15k for single filers, \$30k for joint) with no income limits could have had more than 5x the impact.

# **Spending Cuts Directly Impacting Consumers**

#### SNAP (see here for more detail):

#### Details:

· Work requirements: Beginning in 2026, work requirements will be expanded for

- able-bodied adults up to age 64 from the current 54, while limiting individual states' ability to waive these rules.
- Updates to the Thrifty Food Plan: Beginning in 2027, the USDA cannot adjust the
  calculation for SNAP benefits outside of adjustments made for inflation. Thrifty
  Food Plan reviews were scheduled to occur in 2027 and 2032. The last review in
  2021 increased benefits by ~\$15 per person per month.
- State cost-sharing also changes beginning in 2028, though we view that as less directly impactful to consumers.

#### Cohorts Impacted:

- Low-income consumers hurt most. In general, to qualify for SNAP a household must have a gross monthly income at or below 130% of the federal poverty level and net monthly income at or below 100% of the federal poverty level.
- For the bottom 10% of households, income from public assistance programs including SNAP benefits made up around 20% of before-tax income in recent years. For the second 10% it made up around 5%.

#### Relative Magnitude:

- CBO savings estimate (excluding state cost sharing provision): \$7bn in 2026,
   \$115bn total.
- In 2024, around 12% of the population, or 40mn people, received SNAP benefits.
   Estimates show 2-2.9mn individuals could lose benefits from work requirements, and changes to Thrifty Food Plan could affect the size of future benefits.

#### Medicaid:

Details: \*Note: there are many changes to Medicaid in the bill, but we highlight a handful we view as important for consumers

- Work requirements: States must condition eligibility for individuals 19-64 on
  working or participating in qualifying activities at least 80 hours per month, with
  some exceptions for parents with children under 13, etc. States must implement
  this by end of 2026, or can get an exemption until end of 2028.
- Cost sharing: Requires states to impose cost sharing of up to \$35 per service for expansion adults with incomes above the federal poverty level, with some services exempt. Some states already impose other cost sharing, which will likely remain as well. Effective Oct 1, 2028.
- Eligibility checks: Requires states to conduct eligibility requirement checks for expansion adults every 6m instead of 12m previously. Effective Dec 31, 2026.
- Immigrant eligibility: Restricts definition of qualified immigrants for Medicaid eligibility, now excluding groups such as refugees, individuals granted parole or asylum, and others. Effective Oct 1, 2026.
- Less retroactive coverage: Limits retroactive coverage to one month prior to application for expansion adults and two months for traditional enrollees, versus 90 days for all previously. Effective Jan 1, 2027.

#### Cohorts Impacted:

• Low-income consumers. Generally, individuals have been eligible for Medicaid if their income falls below 133% of the federal poverty level.

#### Relative Magnitude:

- CBO savings estimate (for all Medicaid changes): \$25bn in 2026, \$1.1tn total.
- Estimates from CBO and KKF show these, combined with the other Medicaid provisions in the bill, could result in over 10mn individuals losing access to federal health insurance.

#### Student loans:

#### Details:

- Grad PLUS loans are eliminated after July 2026 (previously allowed for borrowing with no cap). Parent PLUS loans are capped at \$20k per year and \$65k over a lifetime per dependent (previously had no cap)
- New income driven repayment plan: Repayment Assistance Program (RAP) was
  created. This new plan will allow borrowers to pay 1-10% of their adjusted gross
  income, but with a minimum payment of \$10 per month. Balances can be forgiven
  after 30 years.
- Phase out of older income driven repayment plans: PAYE, ICR, and SAVE plans will be phased out. Current enrollees in PAYE or ICR have until July 2028 to switch to either the standard payment plan, IBR, or a new RAP plan. Borrowers with loans taken out before July 2026 can stay on the IBR plan. Borrowers with loans taken out after July 2026 will only have two options: the new RAP plan or the standard payment plan.
- Separate from the bill, interest will start to accrue for SAVE borrowers on August 1, and they will be encouraged to join a different plan.

#### Cohorts Impacted:

 Middle-income, younger consumers hold the largest shares of student loans (see here for more detail).

#### Relative Magnitude:

- CBO savings estimate: \$14bn in 2026, \$287bn total.
- Changes to repayment plans could result in increases in monthly payments for many borrowers. Over 10mn borrowers, or almost a third, are currently enrolled in either the SAVE, ICR, or PAYE plan.
- Elimination of Grad PLUS and limitations on Parent PLUS could have large impacts, dependent on the ability of private lenders to step in, and at what cost. Currently 1.8 million individuals have Grad PLUS loans, but with larger balances than other loan types, these make up 7% of all outstanding federal student loans. 3.6 million people have Parent PLUS loans, with these making up 7% as well.

#### IRA tax credit repeal:

#### Details:

- Residential solar tax credits (Section 25D in IRA) will be eliminated after this year.
   Previously, homeowners could claim 30% of the cost of installing qualifying solar
   panels. The Energy Efficient Home Improvement Credit, also 30%, will end this
   year as well. Foreign Entity of Concern restrictions begin next year for Section 48E,
   solar leases/PPAs. Changes to rules here could potentially impact the cost of solar
   leases.
- EV tax credits will be eliminated after Sept. 30, 2025. Previously, the credit was up to \$7,500 on new electric vehicles and \$4,000 on used electric vehicles.

#### Cohorts Impacted:

• Likely higher-income/higher credit score consumers and homeowners.

#### Relative Magnitude:

- CBO savings estimate (just for removal of resi solar credits): \$2bn in 2026, \$144bn
- We view demand for solar panels and electric vehicles as relatively elastic. Today, residential solar is a ~4.5GW market. Our colleagues believe without the tax credits, the residential solar market would be <1GW. This provision is different than the above cuts to consumer transfers. Rather than affecting consumer cashflows directly, it will likely depress demand for solar panels and electric vehicles.</li>



## **Disclosure Section**

The information and opinions in Morgan Stanley Research were prepared by Morgan Stanley & Co. LLC, and/or Morgan Stanley C.T.V.M. S.A., and/or Morgan Stanley Mexico, Casa de Bolsa, S.A. de C.V., and/or Morgan Stanley Canada Limited. As used in this disclosure section, "Morgan Stanley" includes Morgan Stanley & Co. LLC, Morgan Stanley C.T.V.M. S.A., Morgan Stanley Mexico, Casa de Bolsa, S.A. de C.V., Morgan Stanley Canada Limited and their affiliates as necessary.

For important disclosures, stock price charts and equity rating histories regarding companies that are the subject of this report, please see the Morgan Stanley Research Disclosure Website at www.morganstanley.com/researchdisclosures, or contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY, 10036 USA

For valuation methodology and risks associated with any recommendation, rating or price target referenced in this research report, please contact the Client Support Team as follows: US/Canada +1 800 303-2495; Hong Kong +852 2848-5999; Latin America +1 718 754-5444 (U.S.); London +44 (0)20-7425-8169; Singapore +65 6834-6860; Sydney +61 (0)2-9770-1505; Tokyo +81 (0)3-6836-9000. Alternatively you may contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY 10036 USA.

#### **Analyst Certification**

The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: Ariana Salvatore; Bradley Tian.

#### **Global Research Conflict Management Policy**

Morgan Stanley Research has been published in accordance with our conflict management policy, which is available at www.morganstanley.com/institutional/research/conflictpolicies. A Portuguese version of the policy can be found at www.morganstanley.com.br

#### **Important Regulatory Disclosures on Subject Companies**

The equity research analysts or strategists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality of research, investor client feedback, stock picking, competitive factors, firm revenues and overall investment banking revenues. Equity Research analysts' or strategists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

Morgan Stanley and its affiliates do business that relates to companies/instruments covered in Morgan Stanley Research, including market making, providing liquidity, fund management, commercial banking, extension of credit, investment services and investment banking. Morgan Stanley sells to and buys from customers the securities/instruments of companies covered in Morgan Stanley Research on a principal basis. Morgan Stanley may have a position in the debt of the Company or instruments discussed in this report. Morgan Stanley trades or may trade as principal in the debt securities (or in related derivatives) that are the subject of the debt research report.

Certain disclosures listed above are also for compliance with applicable regulations in non-US jurisdictions.

#### **STOCK RATINGS**

Morgan Stanley uses a relative rating system using terms such as Overweight, Equal-weight, Not-Rated or Underweight (see definitions below). Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold and sell. Investors should carefully read the definitions of all ratings used in Morgan Stanley Research. In addition, since Morgan Stanley Research contains more complete information concerning the analyst's views, investors should carefully read Morgan Stanley Research, in its entirety, and not infer the contents from the rating alone. In any case, ratings (or research) should not be used or relied upon as investment advice. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations.

#### **Global Stock Ratings Distribution**

(as of June 30, 2025)

The Stock Ratings described below apply to Morgan Stanley's Fundamental Equity Research and do not apply to Debt Research produced by the Firm.

For disclosure purposes only (in accordance with FINRA requirements), we include the category headings of Buy, Hold, and Sell alongside our ratings of Overweight, Equal-weight, Not-Rated and Underweight. Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold, and sell but represent recommended relative weightings (see definitions below). To satisfy regulatory requirements, we correspond Overweight, our most positive stock rating, with a buy recommendation; we correspond Equal-weight and Not-Rated to hold and Underweight to sell recommendations, respectively.

Coverage Universe		Inves	stment Banking Clients	Other Material Investment Services Clients (MISC)			
Stock Rating Category	Count	% of Total	Count	% of Total IBC	% of Rating Category	Count	% of Total Other MISC
Overweight/Buy	1497	40%	372	45%	25%	702	41%
Equal-weight/Hold	1632	44%	380	46%	23%	776	45%
Not-Rated/Hold	4	0%	0	0%	0%	2	0%
Underweight/Sell	593	16%	79	10%	13%	233	14%
Total	3,726		831			1713	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

#### **Analyst Stock Ratings**

Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over



the next 12-18 months.

Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

#### **Analyst Industry Views**

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below. Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below. Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

#### Important Disclosures for Morgan Stanley Smith Barney LLC Customers

Important disclosures regarding the relationship between the companies that are the subject of Morgan Stanley Research and Morgan Stanley Smith Barney LLC or Morgan Stanley or any of their affiliates, are available on the Morgan Stanley Wealth Management disclosure website at www.morganstanley.com/online/researchdisclosures. For Morgan Stanley specific disclosures, you may refer to www.morganstanley.com/researchdisclosures.

Each Morgan Stanley research report is reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval is conducted by the same person who reviews the research report on behalf of Morgan Stanley. This could create a conflict of interest.

#### **Other Important Disclosures**

Morgan Stanley Research policy is to update research reports as and when the Research Analyst and Research Management deem appropriate, based on developments with the issuer, the sector, or the market that may have a material impact on the research views or opinions stated therein. In addition, certain Research publications are intended to be updated on a regular periodic basis (weekly/monthly/quarterly/annual) and will ordinarily be updated with that frequency, unless the Research Analyst and Research Management determine that a different publication schedule is appropriate based on current conditions.

Morgan Stanley is not acting as a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Morgan Stanley produces an equity research product called a "Tactical Idea." Views contained in a "Tactical Idea" on a particular stock may be contrary to the recommendations or views expressed in research on the same stock. This may be the result of differing time horizons, methodologies, market events, or other factors. For all research available on a particular stock, please contact your sales representative or go to Matrix at http://www.morganstanley.com/matrix.

Morgan Stanley Research is provided to our clients through our proprietary research portal on Matrix and also distributed electronically by Morgan Stanley to clients. Certain, but not all, Morgan Stanley Research products are also made available to clients through third-party vendors or redistributed to clients through alternate electronic means as a convenience. For access to all available Morgan Stanley Research, please contact your sales representative or go to Matrix at http://www.morganstanley.com/matrix.

Any access and/or use of Morgan Stanley Research is subject to Morgan Stanley's Terms of Use (http://www.morganstanley.com/terms.html). By accessing and/or using Morgan Stanley Research, you are indicating that you have read and agree to be bound by our Terms of Use (http://www.morganstanley.com/terms.html). In addition you consent to Morgan Stanley processing your personal data and using cookies in accordance with our Privacy Policy and our Global Cookies Policy (http://www.morganstanley.com/privacy\_pledge.html), including for the purposes of setting your preferences and to collect readership data so that we can deliver better and more personalized service and products to you. To find out more information about how Morgan Stanley processes personal data, how we use cookies and how to reject cookies see our Privacy Policy and our Global Cookies Policy (http://www.morganstanley.com/privacy\_pledge.html).

If you do not agree to our Terms of Use and/or if you do not wish to provide your consent to Morgan Stanley processing your personal data or using cookies please do not access our research. Morgan Stanley Research does not provide individually tailored investment advice. Morgan Stanley Research has been prepared without regard to the circumstances and objectives of those who receive it. Morgan Stanley recommends that investors independently evaluate particular investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of an investment or strategy will depend on an investor's circumstances and objectives. The securities, instruments, or strategies discussed in Morgan Stanley Research may not be suitable for all investors, and certain investors may not be eligible to purchase or participate in some or all of them. Morgan Stanley Research is not an offer to buy or sell or the solicitation of an offer to buy or sell any security/instrument or to participate in any particular trading strategy. The value of and income from your investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices, market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in securities/instruments transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. If provided, and unless otherwise stated, the closing price on the cover page is that of the primary exchange for the subject company's securities/instruments.

The fixed income research analysts, strategists or economists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues (which include fixed income trading and capital markets profitability or revenues), client feedback and competitive factors. Fixed Income Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

The "Important Regulatory Disclosures on Subject Companies" section in Morgan Stanley Research lists all companies mentioned where Morgan Stanley owns 1% or more of a class of common equity securities of the companies. For all other companies mentioned in Morgan Stanley Research, Morgan Stanley may have an investment of less than 1% in securities/instruments or derivatives of securities/instruments of companies and may trade them in ways different from those discussed in Morgan Stanley Research. Employees of Morgan Stanley not involved in the preparation of Morgan Stanley Research may have investments in securities/instruments or derivatives of securities/instruments of companies mentioned and may trade them in ways different from those discussed in Morgan Stanley Research. Derivatives may be issued by Morgan Stanley or associated persons.

With the exception of information regarding Morgan Stanley, Morgan Stanley Research is based on public information. Morgan Stanley makes every effort to use reliable, comprehensive information, but we make no representation that it is accurate or complete. We have no obligation to tell you when opinions or information in Morgan Stanley Research change apart from when we intend to discontinue equity research coverage of a subject company. Facts and views presented in Morgan Stanley Research have not been reviewed by, and may not reflect information



known to, professionals in other Morgan Stanley business areas, including investment banking personnel.

Morgan Stanley Research personnel may participate in company events such as site visits and are generally prohibited from accepting payment by the company of associated expenses unless pre-approved by authorized members of Research management.

Morgan Stanley may make investment decisions that are inconsistent with the recommendations or views in this report.

To our readers based in Taiwan or trading in Taiwan securities/instruments: Information on securities/instruments that trade in Taiwan is distributed by Morgan Stanley Taiwan Limited (\*MSTL\*). Such information is for your reference only. The reader should independently evaluate the investment risks and is solely responsible for their investment decisions. Morgan Stanley Research may not be distributed to the public media or quoted or used by the public media without the express written consent of Morgan Stanley. Any non-customer reader within the scope of Article 7-1 of the Taiwan Stock Exchange Recommendation Regulations accessing and/or receiving Morgan Stanley Research is not permitted to provide Morgan Stanley Research to any third party (including but not limited to related parties, affiliated companies and any other third parties) or engage in any activities regarding Morgan Stanley Research which may create or give the appearance of creating a conflict of interest. Information on securities/instruments that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation or a solicitation to trade in such securities/instruments. MSTL may not execute transactions for clients in these securities/instruments.

Morgan Stanley is not incorporated under PRC law and the research in relation to this report is conducted outside the PRC. Morgan Stanley Research does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors shall have the relevant qualifications to invest in such securities and shall be responsible for obtaining all relevant approvals, licenses, verifications and/or registrations from the relevant governmental authorities themselves. Neither this report nor any part of it is intended as, or shall constitute, provision of any consultancy or advisory service of securities investment as defined under PRC law. Such information is provided for your reference only.

Morgan Stanley Research is disseminated in Brazil by Morgan Stanley C.T.V.M. S.A. located at Av. Brigadeiro Faria Lima, 3600, 6th floor, São Paulo - SP, Brazil; and is regulated by the Comissão de Valores Mobiliários; in Mexico by Morgan Stanley México, Casa de Bolsa, S.A. de C.V which is regulated by Comision Nacional Bancaria y de Valores. Paseo de los Tamarindos 90, Torre 1, Col. Bosques de las Lomas Floor 29, 05120 Mexico City; in Japan by Morgan Stanley MUFG Securities Co., Ltd. and, for Commodities related research reports only, Morgan Stanley Capital Group Japan Co., Ltd; in Hong Kong by Morgan Stanley Asia Limited (which accepts responsibility for its contents) and by Morgan Stanley Bank Asia Limited; in Singapore by Morgan Stanley Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H), regulated by the Monetary Authority of Singapore (which accepts legal responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research) and by Morgan Stanley Bank Asia Limited, Singapore Branch (Registration number T14FC0118)); in Australia to "wholesale clients" within the meaning of the Australian Corporations Act by Morgan Stanley Australia Limited A.B.N. 67 003 734 576, holder of Australian financial services license No. 233742, which accepts responsibility for its contents; in Australia to "wholesale clients" and "retail clients" within the meaning of the Australian Corporations Act by Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813, which accepts responsibility for its contents; in Korea by Morgan Stanley & Co International plc, Seoul Branch; in India by Morgan Stanley India Company Private Limited having Corporate Identification No (CIN) U22990MH1998PTC115305, regulated by the Securities and Exchange Board of India ("SEBI") and holder of licenses as a Research Analyst (SEBI Registration No. INH000001105); Stock Broker (SEBI Stock Broker Registration No. INZ000244438), Merchant Banker (SEBI Registration No. INM000011203), and depository participant with National Securities Depository Limited (SEBI Registration No. IN-DP-NSDL-567-2021) having registered office at Altimus, Level 39 & 40, Pandurang Budhkar Marg, Worli, Mumbai 400018, India; Telephone no. +91-22-61181000; Compliance Officer Details: Mr. Tejarshi Hardas, Tel. No.: +91-22-61181000 or Email: tejarshi.hardas@morganstanley.com; Grievance officer details: Mr. Tejarshi Hardas, Tel. No.: +91-22-61181000 or Email: msic-compliance@morganstanley.com. Morgan Stanley India Company Private Limited (MSICPL) may use AI tools in providing research services. All recommendations contained herein are made by the duly qualified research analysts; in Canada by Morgan Stanley Canada Limited; in Germany and the European Economic Area where required by Morgan Stanley Europe S.E., authorised and regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin) under the reference number 149169; in the US by Morgan Stanley & Co. LLC, which accepts responsibility for its contents. Morgan Stanley & Co. International plc, authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority, disseminates in the UK research that it has prepared, and research which has been prepared by any of its affiliates, only to persons who (i) are investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Order"); (ii) are persons who are high net worth entities falling within Article 49(2)(a) to (d) of the Order; or (iii) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000, as amended) may otherwise lawfully be communicated or caused to be communicated. RMB Morgan Stanley Proprietary Limited is a member 10 of the Financial Services and Markets Act 2000, as amended and the standard of the Financial Services and Markets Act 2000, as amended and the standard of the Financial Services and Markets Act 2000, as amended and the standard of the Services and Markets Act 2000, as amended and the standard of the Services and Markets Act 2000, as amended and the standard of the Services and Markets Act 2000, as amended and the standard of the Services and Markets Act 2000, as amended and the standard of the Services and Markets Act 2000, as amended and the standard of the Services and Servicof the JSE Limited and A2X (Pty) Ltd. RMB Morgan Stanley Proprietary Limited is a joint venture owned equally by Morgan Stanley International Holdings Inc. and RMB Investment Advisory (Proprietary) Limited, which is wholly owned by FirstRand Limited. The information in Morgan Stanley Research is being disseminated by Morgan Stanley Saudi Arabia, regulated by the Capital Market Authority in the Kingdom of Saudi Arabia, and is directed at Sophisticated investors only.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (DIFC Branch), regulated by the Dubai Financial Services Authority (the DFSA) or by Morgan Stanley & Co. International plc (ADGM Branch), regulated by the Financial Services Regulatory Authority Abu Dhabi (the FSRA), and is directed at Professional Clients only, as defined by the DFSA or the FSRA, respectively. The financial products or financial services to which this research relates will only be made available to a customer who we are satisfied meets the regulatory criteria of a Professional Client. A distribution of the different MS Research ratings or recommendations, in percentage terms for Investments in each sector covered, is available upon request from your sales representative.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (QFC Branch), regulated by the Qatar Financial Centre Regulatory Authority (the QFCRA), and is directed at business customers and market counterparties only and is not intended for Retail Customers as defined by the QFCRA.

As required by the Capital Markets Board of Turkey, investment information, comments and recommendations stated here, are not within the scope of investment advisory activity. Investment advisory service is provided exclusively to persons based on their risk and income preferences by the authorized firms. Comments and recommendations stated here are general in nature. These opinions may not fit to your financial status, risk and return preferences. For this reason, to make an investment decision by relying solely to this information stated here may not bring about outcomes that fit your expectations.

The trademarks and service marks contained in Morgan Stanley Research are the property of their respective owners. Third-party data providers make no warranties or representations relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages relating to such data. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P.

Morgan Stanley Research, or any portion thereof may not be reprinted, sold or redistributed without the written consent of Morgan Stanley.

Indicators and trackers referenced in Morgan Stanley Research may not be used as, or treated as, a benchmark under Regulation EU 2016/1011, or any other similar framework.

The issuers and/or fixed income products recommended or discussed in certain fixed income research reports may not be continuously followed. Accordingly, investors should regard those fixed income research reports as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or individual fixed income products. Morgan Stanley may hold, from time to time, material financial and commercial interests regarding the company subject to the Research report.

Registration granted by SEBI and certification from the National Institute of Securities Markets (NISM) in no way guarantee performance



of the intermediary or provide any assurance of returns to investors. Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

The following authors are neither Equity Research Analysts/Strategists nor Fixed Income Research Analysts/Strategists and are not opining on or expressing recommendations on equity or fixed income securities: Michael T Gapen; Heather Berger; Lenoy Dujon; Arunima Sinha; Diego Anzoategui; Sam D Coffin.

The following authors are Fixed Income Research Analysts/Strategists and are not opining on or expressing recommendations on equity securities: Ariana Salvatore; Bradley Tian.

© 2025 Morgan Stanley