

April 21, 2026 01:06 PM GMT

U.S. Data Pulse | North America

March Retail Sales: Strength across the board, our real spending forecast for 1Q is now higher

Key Takeaways

- Headline retail sales rose 1.7% m/m, boosted by gas sales. Control group sales rose 0.7% with upward revisions to prior months.
- Q1 spending is now tracking 1.5% q/q saar vs 1.1% before. Higher prices in Q1 weighed on spending, but less than we previously thought.
- In line with our expectations, higher gas prices did not restrain goods spending.
- We take sign of more strength from this print. But with elevated gas prices in April, we expect more effects from the shock in Q2.
- Autos sales rose 0.5% after a strong Feb while restaurant sales moderated to 0.1% m/m.

Exhibit 1: Retail sales and its components

| | July | Aug | Sep | Oct | Nov | Dec | Jan | Feb | March Actual | MS Forecast | Consensus | Net Revisions |
|-------------------------|------|-----|------|------|-----|------|------|-----|--------------|-------------|-----------|---------------|
| Retail & food services | 0.6 | 0.5 | 0.1 | -0.2 | 0.5 | 0.0 | 0.0 | 0.7 | 1.7 | 1.2 | 1.4 | 0.1 |
| ex autos | 0.4 | 0.6 | 0.1 | 0.2 | 0.4 | 0.0 | 0.1 | 0.7 | 1.9 | 1.4 | 1.4 | 0.1 |
| Control-group | 0.5 | 0.7 | -0.2 | 0.5 | 0.2 | 0.0 | 0.5 | 0.6 | 0.7 | 0.3 | 0.2 | 0.2 |
| Motor vehicle and parts | 1.6 | 0.4 | 0.0 | -1.5 | 0.9 | 0.0 | -0.7 | 1.0 | 0.5 | 0.5 | | -0.1 |
| Gasoline | 1.3 | 0.3 | 2.0 | -1.4 | 1.3 | 0.4 | -2.2 | 1.3 | 15.5 | 13.4 | | -0.2 |
| Building materials | -0.8 | 0.2 | 0.0 | -0.7 | 1.4 | 1.1 | 0.7 | 0.6 | 0.7 | 0.5 | | 0.1 |
| Restaurants | 0.1 | 0.6 | 0.2 | -0.1 | 0.5 | -0.4 | -0.3 | 0.5 | 0.1 | -0.2 | | -0.2 |

Source: Census Bureau, Haver Analytics, Morgan Stanley Research. Note: the revisions refer to the change in the prior month.

MORGAN STANLEY & CO. LLC

Michael T Gapen

Chief US Economist

Michael.Gapen@morganstanley.com

+1 212 761-0571

Sam D Coffin

Economist

Sam.Coffin@morganstanley.com

+1 212 761-4630

Arunima Sinha

Global Economist

Arunima.Sinha@morganstanley.com

+1 212 761-4125

Heather Berger

Economist

Heather.Berger@morganstanley.com

+1 212 761-2296

Diego Anzoategui

Economist

Diego.Anzoategui@morganstanley.com

+1 212 761-8573

Lingdi Xu

Economist

Lingdi.Xu@morganstanley.com

+1 212 761-2957

For important disclosures, refer to the Disclosure Section, located at the end of this report.

March retail sales: Strength across the board, our real spending forecast for 1Q is now higher

Retail sales were up both for the headline (up 1.7% m/m) and control group (up 0.7%). Within the headline, the components were largely in line with our expectations: autos were up 0.5% m/m, sales at gasoline stations were up 15.4%.

Among the control group categories, there was fairly broad based strength, and the strongest categories were online, furniture and general merchandise. There was also upward revisions to both January and February control sales, totaling 0.4%. The largest upward revisions came from health and personal care stores, clothing and sporting goods stores. Restaurant sales, the one services category, moderated to 0.1% m/m.

With this print, we are tracking 1Q real consumption at 1.5% q/q saar, with goods at -0.9% and services at 2.6%. March real consumption is up 0.4% m/m. There will also now be stronger base effects for Q2 consumption. With the upward revisions in the control categories, consumption is running at a stronger pace this quarter than our forecast. We did not expect higher gas prices to weigh on spending yet, and the print above our forecast seems to confirm that. The lower consumer sentiment did not appear to weigh on spending for this month, as we had expected. Tax refunds are up on a y/y basis, and may be helping consumers smooth through the shock near-term, but if gas prices remain elevated we expect larger effects on real goods spending in Q2 and Q3.

Exhibit 2: Retail control and its categories

| | Changes (m/m) in Retail Control and its components | | | | | | | | |
|----------|--|--------------------|--------------------------------|--------------------|---------------------------|--------------------|----------------------------------|----------------------|-----------------------|
| | Retail Control | Nonstore Retailers | Furniture, Home Furn, Elec/App | Food & Beve Stores | Health & Pers Care Stores | Clthg & Acc Stores | Sptg Gds, Hobby, Bk & Mus Stores | General Merch Stores | Misc Stores Retailers |
| 3Q'25Avg | 0.3% | 0.5% | -0.7% | 0.2% | 0.9% | 0.5% | 0.6% | 0.1% | -0.3% |
| 4Q'25Avg | 0.2% | 0.5% | 0.0% | 0.0% | -0.4% | 0.3% | 1.3% | 0.1% | 1.0% |
| 1Q'26Avg | 0.6% | 1.3% | 1.0% | -0.2% | -0.2% | 0.8% | 0.1% | 0.5% | 1.2% |
| Jan'26 | 0.5% | 1.8% | 1.1% | 0.0% | -3.0% | -0.4% | -0.4% | 0.5% | 2.2% |
| Feb'26 | 0.6% | 1.2% | 0.2% | -1.2% | 2.0% | 2.8% | 0.7% | 0.0% | 2.2% |
| Mar'26 | 0.7% | 1.0% | 1.6% | 0.7% | 0.5% | 0.0% | 0.0% | 1.0% | -0.9% |

Source: Census, Morgan Stanley Research

Exhibit 3: Retail sales heat map

| Category of US Retail Sales from the Census Bureau | Mar-26 | Feb-26 | Jan-26 | Dec-25 | Nov-25 | Oct-25 | Sep-25 | Aug-25 | Jul-25 | Jun-25 | May-25 | Apr-25 | Mar-25 y1 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| m/m % change | | | | | | | | | | | | | |
| Retail Sales & Food Services | 1.7 | 0.7 | 0.0 | 0.0 | 0.5 | -0.2 | 0.1 | 0.5 | 0.6 | 1.0 | -0.8 | -0.2 | 4.0 |
| Retail Sales & Food Service Ex Auto | 1.9 | 0.7 | 0.1 | 0.0 | 0.4 | 0.2 | -0.1 | 0.6 | 0.4 | 0.9 | -0.1 | 0.1 | 5.5 |
| Retail Control | 0.7 | 0.6 | 0.5 | 0.0 | 0.2 | 0.5 | -0.2 | 0.7 | 0.5 | 0.9 | 0.3 | 0.0 | 4.8 |
| Motor Vehicle & Parts Dealers | 0.5 | 1.0 | -0.7 | 0.0 | 0.9 | -1.5 | 0.0 | 0.4 | 1.5 | 1.2 | 3.8 | 1.5 | 2.1 |
| Furniture & Home Furn & Electronics/Appliance Stores | 1.6 | 0.2 | 1.1 | -0.9 | 0.0 | 0.9 | -1.7 | -1.6 | 1.3 | 0.2 | -0.5 | -1.1 | 1.6 |
| Building Materials, Garden Equipment & Supply Dealers | 0.7 | 0.6 | 0.7 | 1.1 | 1.4 | -0.7 | 0.0 | 0.2 | -0.8 | 1.4 | -2.7 | 0.8 | 2.6 |
| Food & Beverage Stores | 0.7 | -1.2 | 0.0 | 0.2 | -0.3 | 0.0 | -0.2 | 0.6 | 0.3 | 0.8 | -0.6 | -0.3 | 0.0 |
| Health & Personal Care Stores | 0.5 | 2.0 | -1.8 | -0.3 | -0.6 | -0.1 | 1.8 | -2.2 | 1.7 | 1.1 | 0.6 | -0.9 | 1.6 |
| Gasoline Stations | 15.5 | 1.3 | -2.2 | 0.4 | 1.3 | -1.4 | 2.0 | 0.3 | 1.3 | 0.7 | -0.7 | -0.7 | 18.1 |
| Clothing & Accessory Stores | 0.0 | 2.8 | -0.4 | -0.8 | 0.3 | 1.4 | -0.8 | 0.6 | 1.7 | 1.4 | 0.5 | 0.2 | 7.2 |
| Sporting Goods, Hobby, Book & Music Stores | 0.0 | 0.7 | -0.4 | 1.4 | 0.4 | 2.1 | -1.0 | 1.4 | 1.5 | -0.1 | 0.9 | -3.1 | 3.8 |
| General Merchandise Stores | -1.8 | 0.0 | 0.5 | -0.1 | 0.0 | 0.4 | 0.0 | 0.1 | 0.3 | 0.1 | -0.1 | 0.2 | 2.5 |
| Miscellaneous Stores Retailers | -0.9 | 2.2 | -2.2 | 0.3 | 0.8 | 1.9 | -2.4 | -2.7 | -0.5 | 3.0 | 4.6 | -3.6 | 9.8 |
| Nonstore Retailers | 1.0 | 1.2 | 1.8 | 0.0 | 0.7 | 0.7 | -0.7 | 2.0 | 0.2 | 1.3 | 0.7 | 0.8 | 10.1 |
| Food Services & Drinking Places | 0.1 | 0.5 | -0.3 | -0.4 | 0.5 | -0.7 | 0.2 | 0.6 | 0.1 | 0.8 | -0.2 | 0.5 | 2.4 |
| Adjusted sales (\$bn) | | | | | | | | | | | | | |
| Retail Sales & Food Services | \$ 752 | \$ 740 | \$ 735 | \$ 735 | \$ 735 | \$ 731 | \$ 732 | \$ 722 | \$ 728 | \$ 723 | \$ 716 | \$ 722 | |
| Retail Sales & Food Service Ex Auto | \$ 612 | \$ 601 | \$ 597 | \$ 596 | \$ 596 | \$ 594 | \$ 593 | \$ 592 | \$ 589 | \$ 586 | \$ 581 | \$ 581 | |
| Retail Control | \$ 422 | \$ 419 | \$ 416 | \$ 414 | \$ 414 | \$ 413 | \$ 412 | \$ 412 | \$ 410 | \$ 408 | \$ 404 | \$ 403 | |
| Contribution to change (pp) | | | | | | | | | | | | | |
| Motor Vehicle & Parts Dealers | 0.1 | 0.2 | -0.1 | 0.0 | 0.2 | -0.2 | 0.0 | 0.1 | 0.3 | 0.2 | -0.7 | -0.3 | |
| Furniture & Home Furn & Electronics/Appliance Stores | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Building Materials, Garden Equipment & Supply Dealers | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.2 | 0.0 | |
| Food & Beverage Stores | 0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | -0.1 | 0.0 | |
| Health & Personal Care Stores | 0.0 | 0.1 | -0.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | |
| Gasoline Stations | 1.2 | 0.1 | -0.2 | 0.0 | 0.1 | -0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | |
| Clothing & Accessory Stores | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | |
| Sporting Goods, Hobby, Book & Music Stores | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| General Merchandise Stores | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Miscellaneous Stores Retailers | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.1 | 0.1 | -0.1 | |
| Nonstore Retailers | 0.2 | 0.2 | 0.3 | 0.0 | 0.1 | 0.1 | -0.1 | 0.4 | 0.0 | 0.2 | 0.1 | 0.1 | |
| Food Services & Drinking Places | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | |
| Number of categories rising | | | | | | | | | | | | | |
| Retail Sales & Food Services | 11 | 10 | 5 | 5 | 8 | 7 | 5 | 9 | 10 | 11 | 5 | 6 | |

Source: Census Bureau, Haver Analytics, Morgan Stanley Research

Exhibit 4: 1Q Real GDP Tracker

| Details of 1Q 2026 US GDP tracking (% q/q saar unless indicated) | | | | | | | | | | | | | | |
|--|------------------------------|------------|-------------|------------|------------|-------------|------------|-------------|------------|------------|-------------|-------------|--------------|--------------|
| Date | Data release | GDP | Final sales | Domestic | PCE | Res | Equip | Struct | IPP | Gov | X | M | NX (level) | CIPI (level) |
| 1 Mar | Baseline | 2.2 | 2.2 | 2.0 | 1.4 | -0.5 | 3.0 | 0.8 | 4.8 | 4.0 | 1.2 | -0.1 | -941 | -13 |
| 6-Mar | Retail sales, prices, 4Q GDP | 2.0 | 2.1 | 1.8 | 1.5 | -0.5 | 0.0 | -1.0 | 3.0 | 4.0 | 1.2 | -1.0 | -932 | -16 |
| 12-Mar | Trade | 1.8 | 1.6 | 1.9 | 1.5 | -0.5 | 3.0 | -1.0 | 3.0 | 4.0 | 6.5 | 8.0 | -978 | -2 |
| 12-Mar | Housing starts | 1.8 | 1.6 | 1.9 | 1.5 | -0.8 | 3.0 | -1.0 | 3.0 | 4.0 | 6.5 | 8.0 | -978 | -2 |
| 13-Mar | Durables | 1.6 | 1.4 | 1.8 | 1.5 | -0.8 | 0.0 | -1.0 | 3.0 | 4.0 | 6.5 | 8.0 | -997 | 5 |
| 13-Mar | Consumption (Jan) | 1.8 | 1.5 | 1.9 | 1.6 | -0.8 | 0.0 | -1.0 | 3.0 | 4.0 | 6.5 | 8.0 | -997 | 5 |
| 18-Mar | PPI | 1.9 | 1.7 | 2.0 | 1.2 | -0.8 | 3.0 | -1.0 | 9.0 | 4.0 | 6.5 | 8.0 | -997 | 5 |
| 19 Mar | New home sales | 1.9 | 1.7 | 2.0 | 1.2 | -1.1 | 3.0 | -1.0 | 9.0 | 4.0 | 6.5 | 8.0 | -997 | 5 |
| 1-Apr | Retail sales | 2.0 | 1.8 | 2.1 | 1.2 | -1.1 | 3.0 | -1.0 | 9.0 | 4.0 | 6.5 | 8.0 | -997 | 5 |
| 2-Apr | Trade, inventories | 2.0 | 1.8 | 2.1 | 1.2 | -1.1 | 3.0 | -1.0 | 9.0 | 4.0 | 13.5 | 13.5 | -999 | 5 |
| 2-Apr | Light vehicle sales | 2.0 | 1.8 | 2.1 | 1.3 | -1.1 | 3.0 | -1.0 | 9.0 | 4.0 | 13.5 | 13.5 | -999 | 5 |
| 7-Apr | Durables | 2.3 | 2.1 | 2.4 | 1.3 | -1.1 | 8.0 | -1.0 | 9.0 | 4.0 | 13.5 | 13.5 | -999 | 5 |
| 9-Apr | 4Q GDP and Feb consumption | 2.2 | 2.0 | 2.2 | 1.1 | -1.1 | 8.0 | -1.0 | 9.0 | 4.0 | 13.5 | 13.5 | -1000 | -4 |
| 21-Apr | Retail sales | 2.4 | 2.2 | 2.5 | 1.5 | -1.1 | 8.0 | -1.0 | 9.0 | 4.0 | 13.5 | 13.5 | -1000 | -4 |
| GDP tracking | | 2.4 | 2.2 | 2.5 | 1.5 | -1.1 | 8.0 | -1.0 | 9.0 | 4.0 | 13.5 | 13.5 | -1000 | -4 |
| Contribution to GDP growth (pp) | | 2.2 | 2.6 | 1.0 | 0.0 | 0.4 | 0.0 | 0.5 | 0.7 | 1.4 | -1.8 | -0.3 | 0.2 | |
| Morgan Stanley official forecast | | 2.2 | 2.2 | 2.0 | 1.4 | -0.5 | 3.0 | 0.8 | 4.8 | 4.0 | 1.2 | -0.1 | -941 | -13 |

Source: Bureau of Economic Analysis, Morgan Stanley Research

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/eqr/disclosures/webapp/generalresearch, 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.

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/conflict/policies. A Portuguese version of the policy can be found at www.morganstanley.com.br

Important Disclosures

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 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.

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 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 Comisión 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 T14FCO118); 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. INHO00001105); Stock Broker (SEBI Stock Broker Registration No. INZ000244438), Merchant Banker (SEBI Registration No. INMO00011203), 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., regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin) under the reference number 149169; in the United States 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 of 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 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 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.

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.