

August 5, 2022 04:01 AM GMT

US Equity Strategy | North America

AlphaWise US Consumer Pulse Survey Wave 34

Consumers are continuing to list inflation as their number one concern and trading down at grocery stores, retailers, and restaurants to save money. Few consumers are planning new travel post labor day and cited gasoline prices and the spread of Covid-19 as the primary barriers to travel.

This report provides a full breakdown of data from our thirty-fourth survey of ~2,000 consumers in the U.S., which ran July 29th - August 1st, to gauge consumer behavior, attitudes and outlook.

- Consumers Are Late/Missing Payments: Overall, 38% of consumers reported a missed or late payment on any bill/loan in the past three months, skewing higher among lower income cohort. One priority for consumers is their cell phone bill, among the 90% of consumers who have the payment obligation, only 16% report a missed or late payment. Another priority for consumers is their mortgage (37% have mortgage and, among those, 86% are on time with payments). Student (35%) and personal loans (27%) are more likely to be missed/paid late, but these loans also have a lower incidence among general consumers.
- Consumers Are Trading Down when Purchasing Groceries...: Nearly two thirds of consumers are trading down to lower price brands in at least some grocery products. This trend is driven primarily by the lower income households. Consumers continue to be price conscious when shopping for groceries. In-line with two weeks ago and significantly higher compared to two months ago, consumers are paying more attention to prices when grocery shopping, using coupons/offers, and shopping at retailers with lower prices. Purchasing of organic and/or premium grocery products posted a net decline.
- ...and Also Trading Down at Retailers/Restaurants: Overall, 70% of consumers report at least some changes to their typical shopping and eating out preferences. Switching from name brands to private label brands (41%) and from more expensive to less expensive retailers (34%) is most common, especially among female consumers. Switching from higher priced menu options to lower ones was also a popular way to save money with 29% of consumers engaging in this behavior.
- Travel Plans to Slow After Labor Day: While approximately 55% of consumers are planning to travel over the next 6 months only about 1/3 of consumers are planning new trips POST labor day implying travel will slow

alphawise α

MORGAN STANLEY & CO. LLC

Michelle M. Weaver, CFA **EQUITY STRATEGIST**

Michelle.M.Weaver@morganstanley.com +1 212 296-5254

Katie Solovieva

DATA ANALYST

Katie.Solovieva@morganstanley.com

+1 212 761-6753

Michael J Wilson **EQUITY STRATEGIST**

M.Wilson@morganstanley.com

+1 212 761-2532

Andrew B Pauker

EQUITY STRATEGIST

Andrew.Pauker@morganstanley.com

+1 212 761-1330

Diane Ding, Ph.D.

OUANTITATIVE STRATEGIST

+1 212 761-6758 Qian. Ding@morgan stanley.com

Nicholas Lentini, CFA

RESEARCH ASSOCIATE

Nick.Lentini@morganstanley.com +1 212 761-5863

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 decision.

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

Wave 34 Results



AlphaWise U.S. Consumer Pulse Survey: Wave 34

August 5th, 2022

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 decision.

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

Michelle M. Weaver

Equity Strategist

Michelle.M.Weaver@morganstanley.com +1 212 296- 5254

Katie Solovieva

AlphaWise, Data Analyst

Katie.Solovieva@morganstanley.com +1 212 761-6753

Michael Wilson

Chief US Equity Strategist & CIO

M.Wilson@morganstanley.com +1 212 761-2532

Andrew Pauker

Equity Strategist

Andrew.Pauker@morganstanley.com +1 212 761-1330

Diane Ding

Quantitative Strategist

Qian.Ding@morganstanley.com +1 212 761-6758

Nicholas J. Lentini, CFA

Research Associate

Nick.Lentini@morganstanley.com +1 212 761-5863



Survey Highlights

Sentiment

• Inflation remains to be, by far, one of the top concerns for roughly two third of consumers, in line with the past several weeks and significantly higher compared to the beginning of the year (at 56%). The political environment is the second top concern for 40% of consumers (similar to last month), followed by concern over COVID 19 spread at 29% (vs. 25% last month). Around a quarter of consumers expressed concerns over the inability to pay rent/mortgage and/or repay debts (similar to the previous waves). Apart from inflation, low income consumers are generally more worried about the inability to pay rent and other debts, while upper income consumers over index on concerns over investments, the political environment in the U.S. and geopolitical conflicts.

Macro Outlook

Consumer confidence in the economy reverted slightly in early June and continues to marginally improve with 28% of
consumers expecting the economy to get better in the next six months, while 55% (vs. 57% two weeks ago and 59% last
month) of consumers expecting the economy to get worse. Consumers' household financial outlook also improved with 30%
(vs. 34% two weeks ago and 26% in April) having a negative outlook on household finances and another 29% (in line with last
wave) expecting no change over the next six months. The weaker outlook is driven primarily by low and mid income
consumers, while upper income consumers are generally more positive, though similar in trajectory.

Inflation & Spending Outlook

• Consumers, on average, have 4 months worth of expenses in savings skewing higher among upper income. Majority of consumers surveyed continue to say they are likely to cut back on spending over the next 6 months because of inflation (65% vs. 69% two weeks ago and 66% last month), with restaurants most at risk of consumer pull back. Overall, 38% of consumer report a missed or late payment on any bill/loan in the past three months, skewing higher among lower income cohort (~47%). Cell phone and mortgage tend to be paid on time more compared to personal and student loans. Pullback in spending outlook for the next six months continues to be elevated, though similar to the last wave.

Activities/Going Out

Consumer participation in out of home activities is relatively stable over the past few weeks. Roughly two third of consumers
report eating out at restaurants in the past month; net engagement, however, for the next month continues to be negative and
declining at 10% (vs. 13% two weeks ago). Incidence in mall visits reached highest level to date (44%), but net engagement
outlook (% who expect to engage in activity more minus less) is continues to trend net negative (-7% vs. 14% two weeks ago).
 Visits to gyms and indoor fitness clubs are consistent to previous waves.

Travel

• Travel intentions continue to trend somewhat lower compared to the same time last year with 55% of consumers planning to travel over the next six months (vs. 54% two weeks ago and 59% end of July last year). Households with \$150K+ income are resilient in their travel intentions and over index lower income counterparts. Additionally, upper income consumers are far more likely to plan new travel post Labor Day through the rest of 2022. Gas prices, by far, is the main barrier for travel cited by consumers (34% main barrier / 58% top 3). Consumers are also still concerned about COVID 19 with (18% / 45%) and mindful about airline / hotel prices.

alphawise α

Outline

Pg. 3 Consumer Sentiment

Pg. 7 Outlook & Spending Plans

Pg. 15 Inflation

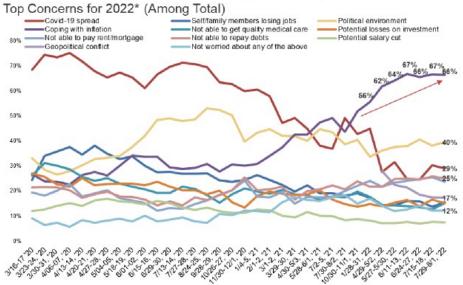
Pg. 22 Planned Activities & Travel



Sentiment

Inflation remains to be, by far, one of the top concerns for roughly two third of consumers, in-line with the past several weeks and significantly higher compared to the beginning of the year (at 56%). The political environment is the second most listed primary concern with 40% of consumers selecting it (similar to last month), followed by concern over COVID-19 spread at 29% (vs. 25% last month). Around a quarter of consumers expressed concerns over the inability to pay rent/mortgage and/or repay debts (similar to the previous waves).

Possibility of losing a job (self/family) is a concern for 16% of consumers (trending similarly since the beginning of this year and far lower vs. the 2020 average of 30%).



Source: AlphaWise, Morgan Stanley Research,

Note: In Wave 18 guestion wording was changed to identify top concerns for "2021" from "2020".

Note: In Wave 18 "Presidential election" was changed to "Political environment (e.g., the efficiency of the government, government policies, attitude towards the economy, etc.)".

Note: In Wave 27 guestion wording was changed to identify top concerns for "2022" from "2021"

Note: In Wave 29 a new attribute was added to the list "Geopolitical (international) conflict".

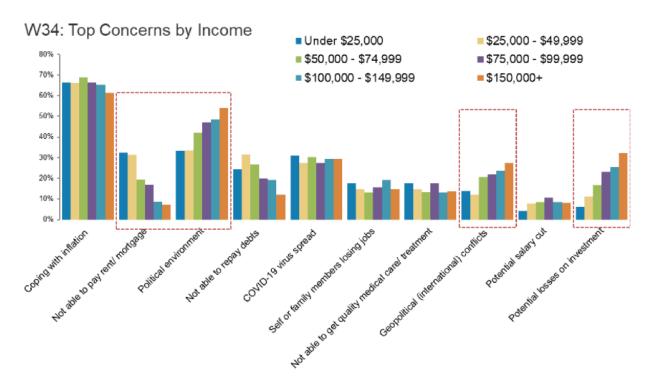
4

alphawise α

Sentiment: Top Concerns by Income

Consumers across income segments are equally concerned about inflation.

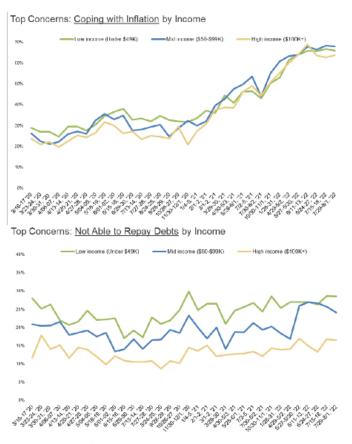
Low-income consumers are generally more worried about the inability to pay rent and other debts, while upper income consumers over index on concerns about investments, political environment in the U.S. and geopolitical conflicts.

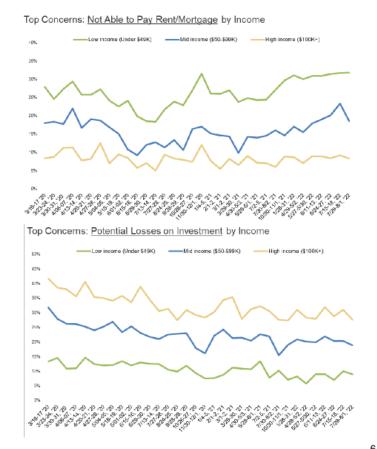




Sentiment: Top Concerns by Income

A similar general trend is also observed in the time series data; income cohorts are directionally aligned, but magnitude varies.





alphawise α

Outline

Pg. 3 Consumer Sentiment

Pg. 7 Outlook & Spending Plans

Pg. 14 Inflation

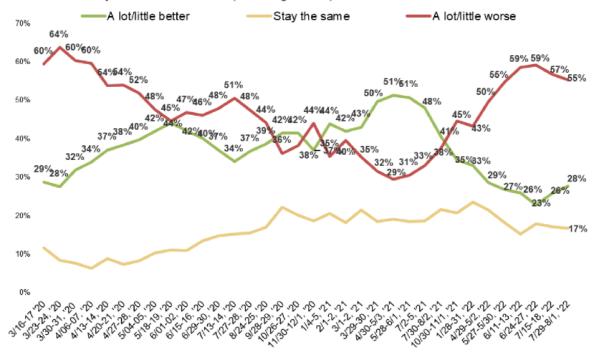
Pg. 22 Planned Activities & Travel



U.S. Economy Outlook

Consumer confidence in the economy reverted slightly in early June and continues to marginally improve with 28% of consumers expecting the economy to get better in the next six months, while 55% (vs. 57% two weeks ago and 59% last month) of consumers expecting the economy to get worse. The proportion of consumers who believe the economy will remain the same is 17% (in-line with the previous wave).

U.S. Economy Next 6 Months (Among Total)

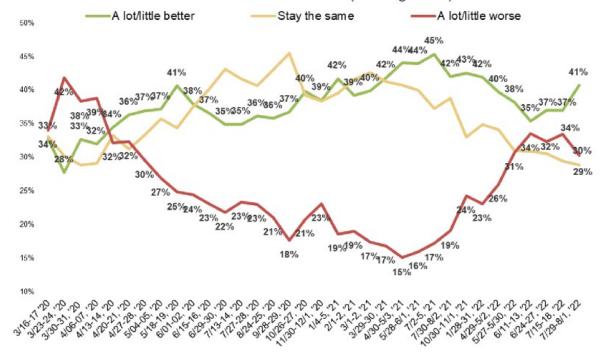




Household Financial Situation Outlook

Consumers' household financial outlook also improved with 30% (vs. 34% two weeks ago and 26% in April) having a negative outlook on household finances and another 29% (in-line with last wave) expecting no change over the next six months. The number of consumers who expect household finances to get better is 41% (up from 37% in the last few waves vs. 42% in the beginning of the year).

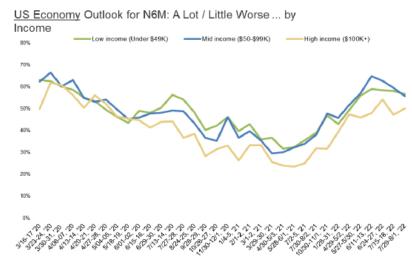
Household Financial Situation Next 6 Months (Among Total)

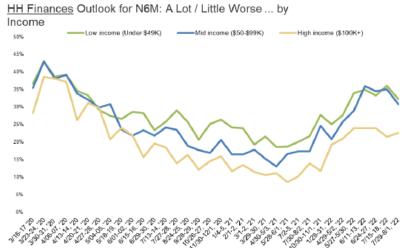




Outlook by Income

The weaker outlook is driven primarily by low- and mid-income consumers (HH income less than \$100K), albeit some improvement over the last two weeks. Upper income consumers tend to be more optimistic, especially around their own finances.





alphawise α

Household Savings Reserves

Household savings reserve unchanged, 26% of consumers do not have savings, another one third have 3 months or less in savings, 25% have 4-12 months and 12% more than a year; yielding to an average savings reserve of 4.4 months.

Savings reserves vary significantly by income, with upper income consumers having on average around 7-8 months worth of expenses in savings.



Source: AlphaWise, Morgan Stanley Research Average is calculated by taking mid point for each answer choice, "Over 12 months" equates to 18 months for calculation purposes

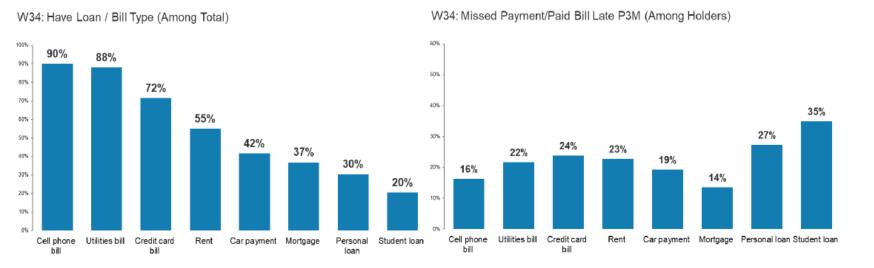


NEW Bill / Loan Payments

Overall, 38% of consumers report a missed or late payment on any bill/loan in the past three months, skewing higher among lower income cohort.

A clear priority for consumers is their cell phone bill, among the 90% of consumers who have the payment obligation, only 16% report a missed or late payment. Another priority for consumers is their mortgage (37% have mortgage and, among those, 86% are on time with payments).

Student (35%) and personal loans (27%) are more likely to be missed/paid late, but these loans also have a lower incidence among general consumers.

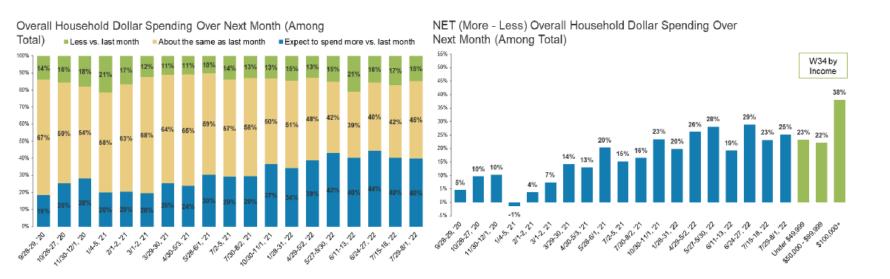


alphawise α

Overall Spend Next Month vs. Last Month

In general, consumers tend to recognize the need to increase overall spending (likely due to inflation), with 40% (in-line with last wave and 44% last month) of consumers expecting to spend more compared to last month and 15% (vs. 17% / 16%) less, yielding a net of +25% (vs. +23% two weeks ago and +29% last month). Another 45% don't plan to change their spending habits.

Higher expected spending is driven primarily by upper income households.

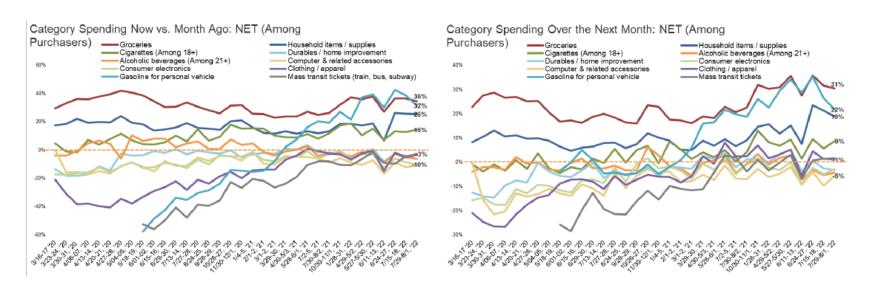




Monthly Category Spend

Category spend across most categories is similar to the two weeks ago. Consumer electronics, computers and apparel categories continue to post lower negative net spending compared to net positive essential categories (groceries, gas and household items). A notable decrease in spending is observed for gas (both MoM and over the next month) likely due to prices coming down and summer car travel slowing.

Note, this does not control for effects from inflation.



Source: AlpnaWise, Morgan Stanley Research NET: Percentage of consumers who said "More" – "Less

alphawise α

Outline

Pg. 3 Consumer Sentiment

Pg. 7 Outlook & Spending Plans

Pg. 14 Inflation

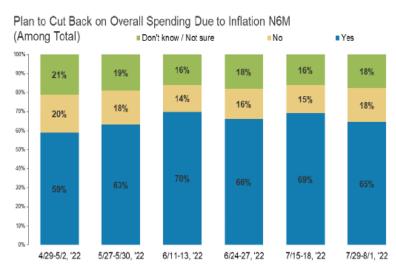
Pg. 22 Planned Activities & Travel

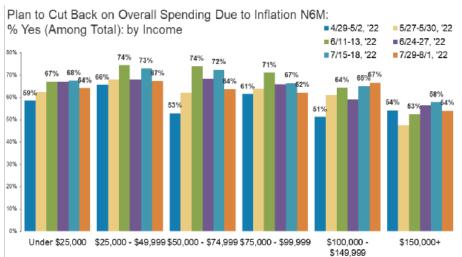


Plans to Cut Back on Spending Due to Inflation Over the Next 6 Months

The majority of consumers surveyed continue to say they are likely to cut back on spending over the next 6 months because of inflation (65% vs. 69% two weeks ago and 66% last month). Only 18% of consumers say they are not cutting back and another 18% are not sure.

Households with an income of \$150K+ are more resilient.

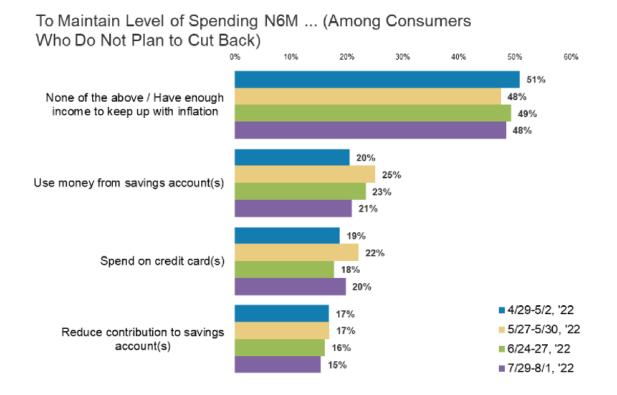






Maintaining Spending Level

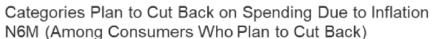
Among the 35% of consumers who are planning to maintain their level of spending (including those who are not sure) in the current wave of the survey, around half claim to have sufficient income to keep up with the inflation, 21% plan to dip into savings and 20% spend on credit.

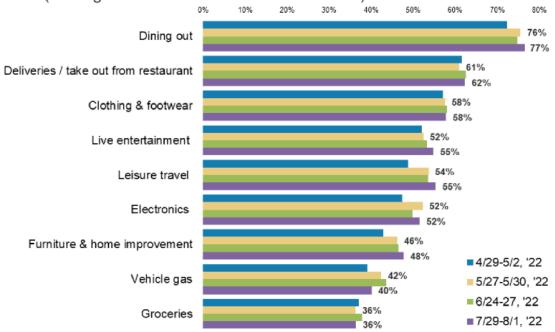




Categories Impacted by Inflation

Restaurants continue to be most at risk of a consumer pullback in spending with 77% mentioning cutting back on dining out and 62% on deliveries/take-out from restaurants (in-line with previous waves of the survey). Clothing and footwear, live entertainment and leisure travel are also popular areas to cut back.



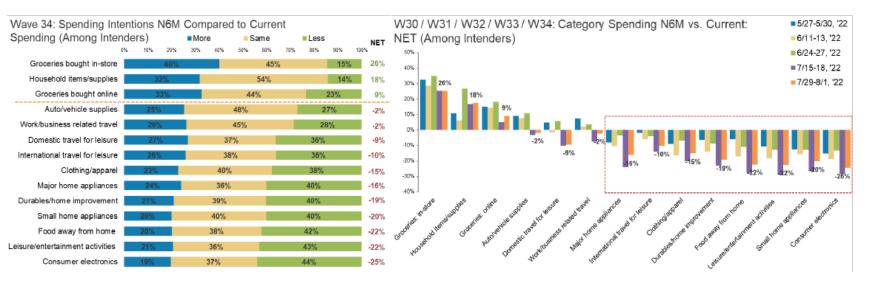




Spending Outlook: Next 6 Months

Pullback in spending outlook for the next six months continues to be elevated, though similar to the last wave. On the net basis more consumers still plan to spend on the essential categories: groceries and household supplies.

Categories with highest negative net spending intentions are consumer electronics, food away from home, leisure activities, and appliances.



Source: AlphaWise, Morgan Stanley Research NET: Percentage of consumers who said "More" – "Less"



Grocery Shopping Trends

Consumers continue to be price conscious when shopping for groceries. In-line with two weeks ago and significantly higher compared to two months ago, consumers tend to pay more attention to prices when grocery shopping, use coupons/offers, and shop at retailers with lower prices. Purchasing of organic and/or premium grocery products posted a net decline.

Overall, 63% of consumers are trading down to lower price brands in at least some grocery products (in-line with two weeks ago and significantly higher compared to earlier this year). This trend is driven primarily by the lower income households.

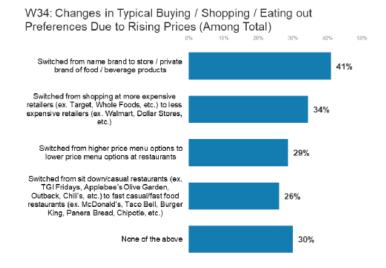


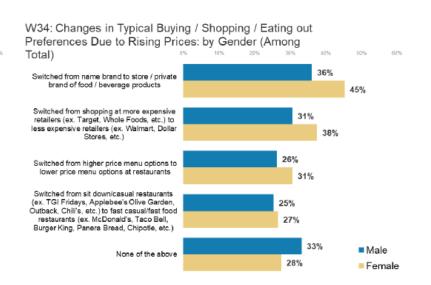
Source: AlphaWise, Morgan Stanley Research
NET: Percentage of consumers who said "More" "Less"
May 2022 data is based on the Annual Grocery Shopping Trends survey among grocery shoppers in the U.S.



NEW Trading Down in Shopping and Eating Out

Overall, 70% of consumers report at least some switching to their typical shopping and eating out preferences. Switching from name brands to private label brands (41%) and from more expensive to less expensive retailers (34%) is most common, especially among female consumers (who generally tend to do most of the shopping for the household). Switching from higher priced menu options to lower ones was also a popular way to save money with 29% of consumers engaging in this behavior.





alphawise α

Outline

Pg. 3 Consumer Sentiment

Pg. 7 Outlook & Spending Plans

Pg. 14 Inflation

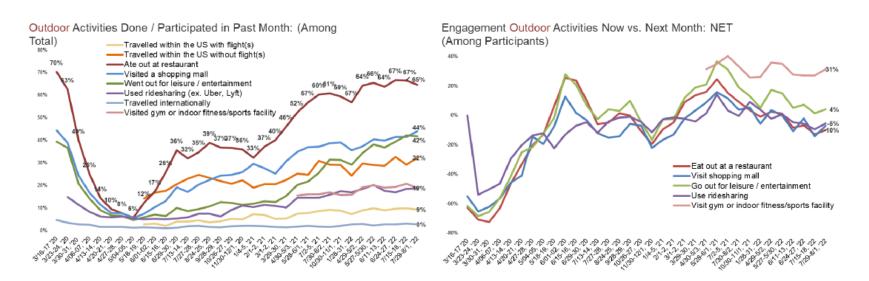
Pg. 22 Planned Activities & Travel



Engagement in Activities: Out of Home

Consumer participation in out of home activities is relatively stable over the past few weeks. Roughly two third of consumers report eating out at restaurants in the past month; net engagement, however, for the next month continues to be negative at -10% (vs. -13% two weeks ago).

Incidence in mall visits steadily increasing to 44%, but net engagement outlook (% who expect to engage in activity more minus less) continues to trend net negative (-7% vs. -14% two weeks ago). Visits to gyms and indoor fitness clubs are consistent to previous waves.



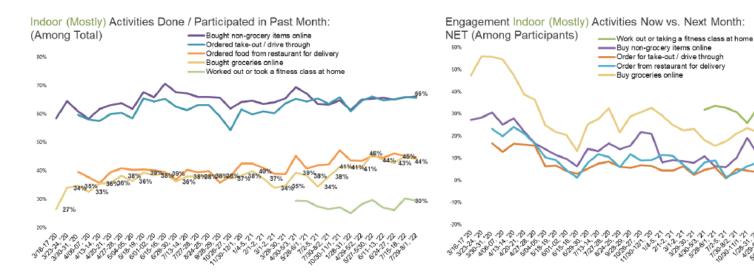
Source: AlphaWise, Morgan Stanley Research NET: Percentage of consumers who said "More" – "Less



Engagement in Activities: Indoor (Mostly)

The number of consumers who participated in indoor activities is also consistent with previous waves of the survey. Net engagement outlook, however, continues to trend net negative for take out/drive through (-9% vs. -14% two weeks ago) and restaurant delivery ordering (-7% vs. -10%). Online shopping engagement outlook (excluding grocery) is at +2% compared to -3% two weeks ago.

Working out at home (similar to workouts at the gym) is stable and outlook remains net positive (+32%).



Source: AlphaWise, Morgan Stanley Research NET: Percentage of consumers who said "More" – "Less

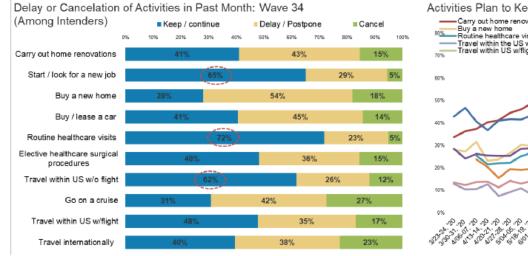


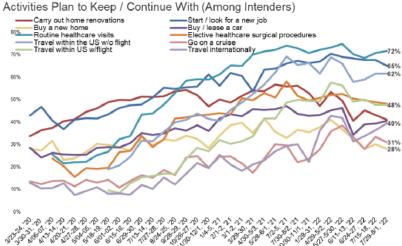
Delay or Cancelation of Planned Activities

Consumers continue to be more cautious to follow through with major plans and purchases (such as purchase of a home or a car, etc.).

Consumers who plan to follow through with travel without flights is at 62% (in-line with two weeks ago and 59% last month) and with a flight 48% (vs. 48% / 50%).

International travel plans and cruises continue to be canceled/postponed the most, while job hunting and routine health visit follow through rate is the highest.



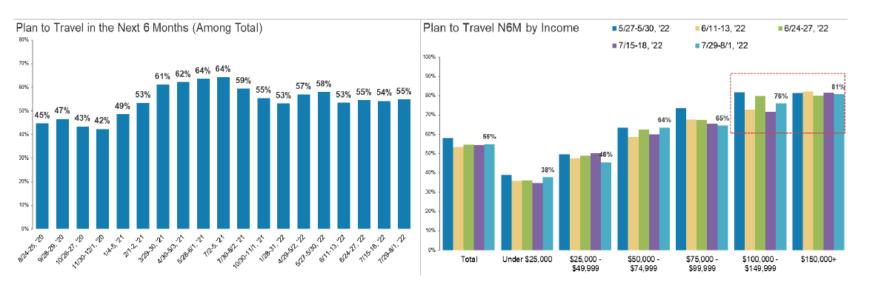




Travel Intentions Next 6 Months

Travel intentions continue to trend somewhat lower compared to the same time last year with 55% of consumers planning to travel over the next six months (vs. 54% two weeks ago and 59% end of July last year). Households with \$100K+ income are resilient in their travel intentions and over index lower income counterparts.

Visiting friends/family and vacation remain to be the most common reasons for travel. Although vacationing as a reason for travel is down vs. same time last year (40% vs. 50% in July 2021).

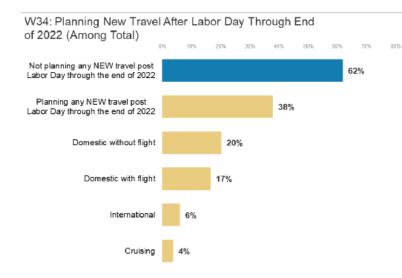




NEW New Travel Plans Post Labor Day Through End of 2022

Only about one third of consumers (38%) are planning new travel post Labor Day through the rest of 2022 though this is significantly higher among upper income consumers (61%).

Consumers are much more likely to plan domestic trips than international tripes or cruises.



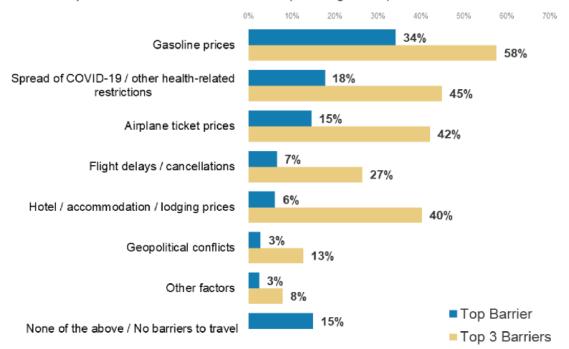


alphawise α

NEW Travel Barriers

The price of gasoline, by far, is the main barrier for travel cited by consumers (34% main barrier / 58% top 3). Consumers are also still concerned about the spread of COVID-19 with (18% / 45%) and mindful about airline ticket prices (15%/42%) and hotel prices (6%/40%).





alphawise α

Survey Methodology

Online survey among ~2,000 consumers each wave age 16-75 year old in the U.S. Total sample is representative of the U.S. general population in terms of age, gender and region. The margin of error on the total sample is ±1.8% at 90% confidence level; higher for subgroups. Note: cadence of the survey varies, refer to field dates below:

- Wave 1 survey was conducted March 16th 17th, 2020.
- Wave 2 survey was conducted March 23rd 24th, 2020.
- Wave 3 survey was conducted March 30th 31st, 2020.
- Wave 4 survey was conducted April 6th 7th, 2020.
- Wave 5 survey was conducted April 13th 14th, 2020.
- Wave 6 survey was conducted April 20th 21st, 2020.
- Wave 7 survey was conducted April 27th 28th, 2020.
- Wave 8 survey was conducted May 4th 5th, 2020.
- Wave 9 survey was conducted May 18th 19th, 2020
- Wave 10 survey was conducted June 1st 2nd, 2020.
- Wave 11 survey was conducted June 15th 16th, 2020.
- Wave 12 survey was conducted June 29th 30th, 2020.
- Wave 13 survey was conducted July 13th 14th, 2020.
- Wave 14 survey was conducted July 27th 28th, 2020.
- Wave 15 survey was conducted August 24th 25th, 2020
- Wave 16 survey was conducted September 28th 29th, 2020.
- Wave 17 survey was conducted October 26th 27th, 2020.
- Wave 18 survey was conducted November 30th December 1st, 2020.
- Wave 19 survey was conducted January 4th 5th, 2021.
- Wave 20 survey was conducted February 1st 2nd, 2021.
- Wave 21 survey was conducted March 1st 2nd, 2021.
- Wave 22 survey was conducted March 29th 30th, 2021.
- Wave 23 survey was conducted April 30th May 3rd, 2021.
- Wave 24 survey was conducted May 28th June 1st, 2021.
- Wave 25 survey was conducted July 2nd 5th, 2021.
- Wave 26 survey was conducted July 30th August 2nd, 2021.
- Wave 27 survey was conducted October 30th November 1st, 2021
- Wave 28 survey was conducted January 28th 31st, 2022.
- Wave 29 survey was conducted April 29th May 2nd, 2022.
- Wave 30 survey was conducted May 27th 30th, 2022.
- Wave 31 survey was conducted June 11th 13th, 2022.
- Wave 32 survey was conducted June 24th 27th, 2022.
- Wave 33 survey was conducted July 15th 18th, 2022.
- Wave 34 survey was conducted July 29th August 1st, 2022.

29



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: Diane Ding, Ph.D.; Andrew B Pauker; Michelle M. Weaver, CFA; Michael J Wilson.

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 July 31, 2022)

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		INVESTMENT BANKING CLIENTS (IBC)			OTHER MATERIAL INVESTMENT SERVICES	
						CLIENTS (MISC)	
STOCK RATING	COUNT	% OF	COUNT	% OF	% OF	COUNT	% OF
CATEGORY		TOTAL		TOTAL IBC	RATING		TOTAL
					CATEGORY		OTHER
							MISC
Overweight/Buy	1366	39%	318	42%	23%	593	39%
Equal-weight/Hold	1559	44%	357	47%	23%	708	46%
Not-Rated/Hold	0	0%	0	0%	0%	0	0%
Underweight/Sell	613	17%	91	12%	15%	226	15%
TOTAL	3,538		766			1527	

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 & E*TRADE Securities 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 and E*TRADE Securities 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

Morgan Stanley | RESEARCH



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 T14FC0118J); 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; in Canada by Morgan Stanley Canada Limited, which has approved of and takes responsibility for its contents in Canada; 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 Regulatory Authority and regulated by the Financial Conduct Authority and the Prudential Regulatory Authority, disseminates in the UK research that it has prepared, and approves solely for the purposes of section 21 of the Financial Services and Markets Act 2000, research which has been prepared by any of its affiliates. 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 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), and is directed at Professional Clients only, as defined by the DFSA. 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 to be 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. 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: Katie Solovieva.

© 2022 Morgan Stanley