

# Grassroots Research®

## Market Monitor

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## Autonomous-vehicle technology – California

To gauge the timeliness of broader autonomous-vehicle (AV) adoption in California, Grassroots commissioned interviews with sources knowledgeable about the industry. Among those who provided estimates, broader adoption is expected in an average of 9 years, with a range of 5–15 years, while those who did not provide estimates said the time frame is too distant, with many factors still in play, including technology, political and societal acceptance, the regulatory environment, liability and insurance, federal guidance, and an urban environment not adapted to AVs.

Meanwhile, 17% of sources expect regulations to be passed in California to allow AVs on the market in an average of 6 years, 11% said it is already happening or will happen very soon, 6% said regulations will evolve incrementally, 6% said technology is ahead of regulations, and 61% were unsure of the time frame.

As to the factors distinguishing market leaders from other companies in this industry, they reportedly include funding and financial underpinning, technological expertise, substantial progress already made, the ability to integrate all the different technologies and do it better than others, deployment/testing with significant mileage already, and the ability to build consumer confidence in the brand.

When asked about the negative impact of COVID-19, 56% of sources cited minimal or no impact, as the time frame for AV technology is so long, and 33% said the fact that there was less or no testing during the short initial phase of the pandemic has not had a major impact, while 22% said supply chain issues could have an impact, and 17% said a recession or weaker economy could reduce investment in AV technology. At the same time, 28% cited



a positive impact of COVID-19: 17% said an increase in online shopping due to COVID-19 could lead to a greater focus on AVs for delivery services, 6% said the shortage of drivers for trucking and public transportation could stimulate AV adoption in these industries, and 6% said the virtualization of work as a result of COVID-19 could enable AV companies to attract the best talent from a much wider pool.

## Property market – South Korea

Grassroots commissioned interviews with representatives of real estate agencies in Seoul, South Korea, to examine the underlying demand for housing, understand the drivers and check the current availability of financing. For the rest of 2022, 100% of sources expect housing prices to increase due to economic factors and sociopolitical changes, such as the post-pandemic situation and incoming Yoon administration. One commented, “I expect to see more demand and sales due to the Yoon administration’s housing policies. I think that housing prices will increase.”

In addition, 100% of sources said demand both for buying and selling homes is up in 2022 vs. 2021 due to changes brought on by the Yoon administration as well as the reduction in pandemic-related restrictions.

Meanwhile, the reduction of real estate taxes, lower interest rates, and an increase in loan variety and supply reportedly could trigger a rise in housing transactions by lowering tax burdens and increasing financial support for consumers interested in buying and selling houses.

At the same time, 87% of sources cited minimal impact on property demand as a result of recently rising interest rates, as a single factor is not enough to deter most consumers, while 13% cited significant impact, as many young consumers do not have much disposable income. One source said, “As long as people continue to see the future potential of the real estate market, people will continue to buy houses despite the high interest rates.”

## Frozen food market – China

To assess the sales growth potential of frozen food products in China, Grassroots commissioned interviews with distributors as well as store managers at large-scale supermarkets. Sources’ overall sales of frozen food increased slightly in 1Q 2022 vs. 1Q 2021, led by hotpot ingredients due to popular flavors and the winter weather. Indeed, sales of hotpot ingredients, traditional rice- and flour-based products, and other frozen products reportedly increased an average 6%, 2% and 0%, respectively. One source commented, “Overall sales of frozen food increased slightly in 1Q 2022 vs. 1Q 2021. Hotpot ingredients have been leading sales growth ... mainly due to the popularity of hotpots as well as colder-than-normal winter weather.”

At the same time, sources’ sales of frozen food are down in 2Q 2022 vs. 2Q 2021 in

all segments due to widespread COVID-related lockdowns and logistics issues, although sales of hotpot ingredients and traditional rice- and flour-based products decreased less than sales of other products due to greater popularity. Indeed, sales of hotpot ingredients, traditional rice- and flour-based products, and other frozen food products reportedly are down an average 4%, 8% and 11%, respectively.

Looking ahead, sources expect sales of hotpot ingredients and traditional rice- and flour-based products to increase an average 11% and 5%, respectively, in 2H 2022 overall vs. 2H 2021 due to the easing of COVID restrictions and the popularity of the products, while sales of other frozen food products are expected to remain flat due to lower popularity and the recessive economy.

## IT spending – Global



To assess the current spending environment for IT and the pace of AI adoption, Grassroots commissioned interviews with IT decision makers at companies in the US, Europe and Asia. Forty-six percent of sources expect their 2022 IT budget to increase 6% or more vs. their 2021 IT budget, while 34% expect a 1%–5% increase, 5% expect a 1%–10% decrease, and 15% expect it to remain flat. In addition, 48% expect their 2023 IT budget to increase 6% or more vs. their 2022 IT budget, while 32% expect a 1%–5% increase, 4% expect a 1%–10% decrease, and 15% expect it to remain flat.

Meanwhile, 30% of sources said macro uncertainties have increased their company’s willingness to spend on IT projects for 2022 in the past 90 days, while 28% have lowered their IT budget. Indeed, 34% said the Russia-Ukraine war has increased their company’s budget for 2022 IT spending, while 14% said it has decreased their budget. In addition, 36% of sources said higher interest rates have increased their company’s budget for 2022 IT spending, while 18% said they have decreased their budget. Among those who said macro events have affected willingness to spend on IT projects, 35% said their overall IT budget increased 6% or more in the past 90 days, while 35% said it increased 1%–5%, 11% said it decreased 1% or more, and 18% said it remained flat.

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As to sources' top IT spending priorities in 2022, they include security, cloud computing and digital transformation. Looking ahead, 65% expect a mix shift in IT spending priorities post-COVID-19 lockdowns/work-from-home (WFH) environment as things return to normal, while 25% do not, and 10% were not sure. Among sources who expect a shift, security, digital transformation and cloud computing are the areas seen as the greatest increases in IT spending priorities, while these are also the areas seen as the greatest decreases in IT spending priorities. In the event of cuts to the IT budget, these three areas reportedly would be affected the most. In 2H 2022 vs. 1H, sources said spending has increased most significantly for remote/WFH technology, cloud computing and security. In the next five years, the technology that sources expect to have the greatest impact on their company is cybersecurity, followed by AI/machine learning and hybrid cloud.

Regarding AI, 57% of sources have one or more ongoing projects currently or it is already incorporated in some processes or offerings, while 26% have none but plan to in the future, 8% said it is extensively incorporated in their organization, and 8% have no plans to adopt AI. Among those who have one or more projects currently, 94% said results from big data and AI are measurable or very measurable; 90% started at least some last year, and 97% plan to start at least some this year; and the top objective of investment is advanced analytics/better decisions, followed by innovation/disruption.

As to sources' current mix of cloud workloads, it is 37% private, 32% hybrid and 31% public; the expected mix in five years is 37% private, 34% hybrid and 30% public. In 2022, the top security priority is network security, followed by cloud security and data security.

## Athletic footwear and apparel trends – US

To gauge the impact of inflation, Grassroots commissioned interviews with consumers in the US who shop for athletic footwear and apparel. When asked their top concern about the future, 63% of sources said coping with inflation, 37% said COVID-19 spread, and 35% said not being able to pay rent/mortgage. In the next 30 days, 45% expect their overall spending to be about the same vs. the last 30 days, while 32% expect to spend more and 24% less. Meanwhile, 91% of sources think prices of everyday goods are more expensive or significantly more expensive vs. last year. In addition, 58% said higher gas prices are causing them to purchase significantly fewer things, 29% said some fewer things, and 14% cited no impact.

Compared to last year, 43% of sources are planning on spending less on coats

and outerwear in the next three months, 41% on non-athletic footwear, and 40% on non-athletic apparel, while 14% are planning on spending more on athletic footwear. Apparel, electronics and groceries are the categories in which sources expect to do the most online shopping in the next three months, while jewelry, toys and games, housewares, and accessories are the categories in which they expect to do the least.

As to how sources typically shop for branded footwear and apparel, 37% said it did not change during the pandemic, while 29% shopped more online during the pandemic and will continue after a full return to normal, and 19% shopped more online during the pandemic but will return to pre-pandemic shopping patterns after a full return to normal.

## Out-of-home media advertising – Australia

To examine the advertising spending outlook and check on spending allocation trends for outdoor advertising, Grassroots commissioned interviews with sources at advertising agencies in Australia. Eighty-seven percent said forward advertising bookings until the end of 2022 are uncertain due to economic factors, changes of government in an election year, new COVID-19 variants and paused spending around the end of the financial year. In 2H 2022 vs. 2H 2019 (pre-COVID-19), 60% of sources expect overall advertising spending to remain flat, while 40% expect it to decrease, as advertisers are remaining cautious due to consumer spending still being lower than pre-COVID. In 1H 2023 vs. 1H 2022, 93% expect it to increase, while 7% expect it to remain flat, citing more visibility moving into 2023 as COVID and economic uncertainties dissipate.

In the next 12 months, sources expect outdoor, online and social media to see increasing advertising budget allocations and become more important to advertisers for audience attention and reach, while print and TV are expected to see decreasing allocations, as they are considered less relevant now that consumer attention has shifted to online.

If advertising budgets were tightened, 87% of sources said spending on outdoor advertising would continue to grow because of more creative use of the medium and return-to-office movement, while 13% said it would be flat. In the next 6–12 months, all outdoor advertising media are expected to grow due to the movement of people outdoors, events, and more creative focus on and broader use of the media.

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Grassroots® services are unique to Allianz Global Investors. The Grassroots Research® division combines in-house employees, a global network of over 300 independent, experienced journalists and Field Force researchers, and more than 50,000 industry contacts. We use this network to apply innovative market research and investigative journalism techniques to identify stock and sector trends before our competitors do.

### Advantages:

- 30+ years of experience conducting customized investigative market research around the world.
- Utilizes expertise of independent journalists and Field Force Investigators to reach sources on the ground.
- Utilizes technological tools to target consumer and business panels online and to extract alternative data from the Web.
- Continuous exchange of information between Grassroots® analysts and our investment professionals.
- Provides timely business insights via quick turnaround times.

### Resources:

- Access to thousands of consumers in more than 60 countries via targeted online consumer and business panels.
- 50,000+ industry contacts worldwide from a wide range of industries, including consumer, technology, healthcare, materials, industrials, energy and financials companies
- 300+ Field Force Investigators who conduct quantitative market research among consumers
- 60+ reporters who conduct interviews with industry experts
- In-house team in Europe and Asia Pacific

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