Issue 02 | 2023 allianzgi.com

Grassroots Research® Market Monitor

Smartphone Sales – China
Composite Decking Demand – US

Air-to-Water Heat Pumps – Europe

Agricultural Fertilizer and Farm Equipment Spending – Brazil

Luxury Jewelry Purchase Intentions and Preferences Survey – China

Clear Aligners and Scanners – France

Smartphone Sales – China

Grassroots commissioned interviews with smartphone retailers, distributors, and mobile service operators in China to understand the smartphone sales outlook and competitive environment. According to sources, overall smartphone sales are expected to increase an average 3% in 1Q 2023 vs. 1Q 2022, and an average 5% in 1Q 2023 vs.1Q 2019. Sales are expected to increase during the summer months and into 2H 2023 from the slowdown in 2022, with the highest sales growth in the midrange to high-end segment.

Indeed, all sources reported that current inventory levels are on average about four to five months vs. the appropriate level of two to three months. 86% expect the inventory situation to improve over the next three months, and is expected to take four to six months to get inventory back to the appropriate level.

Sources have been cutting prices over the past one to two months to reduce excessive inventory, with discounts of 30%–50%. This has been successful in bringing down inventory levels and for competing with used smartphone sellers. 53% expect price-cutting levels to be more aggressive over the next three months, and 47% expect it to stay the same. One source commented, "The only way to reduce excess inventory levels is through price cuts. With competition rising from the used smartphone market, it's hard to compete with the lowest prices on those nearly-new older models."

Looking ahead, all sources expect to increase inventory procurement from June 2023 onwards. The most sought-after smartphone models are associated with 5G network support, extra-long battery life, high pixel density, large screens,



wireless display, multi-screen interaction, and AI technology.

In addition, 53% of sources said that demand for peripheral products (such as smartwatches, smart glasses, and VR equipment) is positive in 2023, with an increase of young customers requesting new product models, such as smartwatches, while 47% said demand is neutral as they only appeal to a small group of customers.



Composite Decking Demand – US

To gain an understanding of homeowner interest for spending on composite decking in 2023 vs. 2022 in the US, Grassroots commissioned interviews with deck builders/contractors and home improvement retailers. 45% of sources who commented said overall demand for decking is trending flat vs. the same period last year, while 36% said up.

According to sources, 97% said customers prefer composite over wood decking, primarily due to easier maintenance and longevity. At the same time, all said customers are willing to pay for composite decking vs. wood decking, especially since the cost premium is minimal with today's price of hardwoods.

Regarding market share, 80% of sources said there has been no change in market share among composite decking brands over the past 24 months, while 20% said TimberTech (AZEK) is gaining on the

higher-end market, largely due to more color options. Still, 67% said there is a preference for Trex, while 7% said AZEK, and 26% said it depends on the project.

Looking ahead, 37% of sources expect sales of composite decking will remain flat in 2023 vs. 2022, while 26% said it will increase, and 23% said they were unsure and it will depend on the economy. One source said, "Interest rates on purchasing a new house are aoing up, so demand for new homes is going to go down, and there is going to be a higher percentage of people staying in their homes instead of moving. As a result, a deck, pergola, or some other outdoor innovation is going to mean a smaller loan than an addition or new home. Composite decking will drop slightly, but not as much as the housing market as a whole."

Air-to-Water Heat Pumps – Europe

To track the sales outlook and competitive landscape for air-to-water (ATW) heat pump systems in key European markets, Grassroots commissioned interviews with heat pump distributors and contractors in France, Germany, Italy, and Spain. Sources reported that sales momentum in 1Q 2023 is expected to rise vs. 4Q 2022 for 87% in Germany and 60% in Spain, as ATW heat pumps become more widely installed in new construction and for replacing traditional boilers. It is expected to stabilize for 67% in Italy and 60% in France, after a significant sales increase starting several years ago when government incentive schemes were deployed, and due to product shortages.

Regarding sales growth, sources reported that overall demand for ATW heat pumps is expected to increase in the next two to three years for all sources in Germany,

93% in Spain, 87% in Italy, and 73% in France due to cost benefits, existing and future government regulations pushing for more energy-efficient heating solutions, and ongoing or new financial aid programs. One source in Germany said, "The sales momentum will definitely continue upwards. If I am right, solar and ATW pumps will become mandatory for new construction in Germany."

When asked about market share, sources said that Daikin is the leading brand in all countries, followed by Mitsubishi (Mitsubishi Electric) in France, Italy, and Spain, and NIBE in Germany. Atlantic (Groupe Atlantic) is the third-leading brand in France, Buderus (Robert BOSCH) in Germany, Samsung in Italy, and Panasonic in Spain.

Agricultural Fertilizer and Farm Equipment Spending – Brazil



To gauge farm income expectations for 2023 vs. 2022 and track spending intentions, Grassroots commissioned interviews with operators of large farms in Brazil. 55% of sources expect their net farm income to decrease in 2023 vs. 2022 due to bad weather and price increases of fertilizers, diesel, electricity, and transport, while 30% expect it to remain the same because of higher soybean prices and better productivity.

65% of sources have made no changes in intended acreage for corn for 2023 planting allocations vs. 2022, while 25% have decreased it, and 10% have increased it—down an average 5% overall. At the same time, 90% expect soybean allocations to remain the same in 2023. Large farms in Brazil use the totality of the area, growing corn during winter and soybeans during the summer.

Regarding recent fertilizer price increases, 40% of sources expect to keep farm receipts flat due to a rise on soybean prices, while 35% expect a decrease greater than 30% because purchases occurred when fertilizer prices were at a peak, and 25% expect a decrease of up to 30% due to purchases at a lower price and a reduction in the farming area. One source commented, "The next harvest will be the most expensive in history. I am anticipating an income decrease of around 30%. Besides this incredible increase in the price of fertilizers,

2 (Cont. on page 3)

(Cont. from page 2)

we have also endured a rise in the price of electricity, diesel, and other important inputs. It is not a promising scenario."

Indeed, 45% of sources expect spending on fertilizer to remain flat in 2023 due to unchanged needs and higher costs. One commented, "I am buying the same amount of fertilizer per hectare. I cannot buy less because I am farming on the same extension of land—same area, same needs, same spending per hectare." At the same time, 35% expect to decrease because of higher costs and farming on a smaller expanse of land, and 20% expect an increase due to soil analysis requirements and larger farming area.

When asked about the use of biological fertilizers, 35% of sources already use them, either alone or combined with conventional fertilizers. One source said, "I've been experimenting with biological fertilizer for the past two years and have had positive results. My ultimate goal is to be completely biological." Meanwhile, 30% of sources would prefer to wait for further studies, and 25% have been using it temporarily on a trial basis.

Regarding spending on efficient agricultural farm equipment, 65% expect it to remain flat because of political uncertainties and the risk of high borrowing rates, while 25% expect an increase of up to 30% due to the need for improvement. One source commented, "A new government is just starting. We don't know yet what their policy for our segment will be. Our goal is to keep the renovation schedule, but we need to wait a while."

In addition, another 45% of sources expect spending on farm equipment to decrease based on the political scenario and an actual lack of need, while 30% expect it to increase because of the need to renew the fleet and fulfill current demand, and 25% expect it to remain flat as they will only keep to their existing schedule of acquisitions.

Luxury Jewelry Purchase Intentions and Preferences Survey – China

Grassroots commissioned interviews with consumers in China to assess the demand for gold and gem-set jewelry and purchase intentions in next 12 months. Intentions to purchase luxury jewelry in the next 12 months is high, with 68% having a high desire to buy, and 26% are considering buying. In addition, 72% said they are more interested in buying luxury jewelry now vs. the last 12 months.

For the 72% of sources who cited an increasing interest in buying luxury jewelry, anticipation of more occasions for wear and improved personal spending power are the top two reasons. Meanwhile, for the 6% who cited less interest, deteriorated spending power and fewer occasions for wear were the top two reasons.

Indeed, the major motivations for buying luxury jewelry in next 12 months include daily wear for 55% of sources; self-use for

special occasions/celebrations for 44%; investment purposes for 35%; and gifting for special occasions for 32%.

According to sources, traditional gold and diamond jewelry are the top two preferred types to buy across various occasions. Traditional gold is most preferred for investment purposes as well as a tool to hedge against inflation, as well as for daily wear and non-wedding related gifting. Diamond jewelry is preferred over gold for wedding-related occasions, both for self-use and gifting.

Regarding spending budgets, sources reported the most common luxury jewelry price range for day-to-day wear, special occasions, and gifting is RMB 10,000–RMB 20,000 [USD 1,451–USD 2,902], while the price range for investment and wedding use is higher at RMB 20,000–RMB 50,000 [USD 2,902–USD 7,255].

Clear Aligners and Scanners – France

To assess general trends in demand and brand competition for clear aligners since the beginning of the year, Grassroots commissioned interviews with orthodontists and dentists in France. Demand for clear aligners has been trending up for 70% of sources since the beginning of the year as a result of growing concern about physical appearance, social media influence, and word of mouth. Meanwhile, it has been trending flat for 25% due to economic pressures on patients' expenditure of choice. One source commented. "Demand for clear aligners has been static overall since the beginning of the year, because of the big jump in bills patients have to pay, combined with some short time working. The demand is still there, but the dramatic increase in fuel and energy costs and prices has inevitably obliged some patients to make choices, and [clear aligner] treatment is expensive."

According to sources, 60% said brand recognition was the main decision-making argument to prescribe a clear aligner brand, while 20% said superior technology, and 15% said price. One commented, "Brand recognition is the main reason for choosing to prescribe Invisalign [Align Technology]. They are head and shoulders above the competition in the marketplace and patients know about them from social media and friends. When I started prescribing clear aligners, they were the only product available."

Looking ahead, 85% of sources do not intend to change brands of clear aligners or scanners in the next 12 months, as change is disruptive, and 10% who commented said they cannot change clear aligners because of company policy.

About Grassroots Research®

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 financial 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

Grassroots Research®

Research Specialist Grassroots Jasmine Breiding

Grassroots® Market Monitor is published quarterly by Grassroots Research®, a division of Allianz Global Investors. Bockenheimer Landstraße 42-44 60323 Frankfurt am Main Germany

email: grassroots@allianzgi.com online: https://www.allianzgi.com/en/ capability-landing/about-grassrootsresearch

Investing involves risk. The value of an investment and the income from it will fluctuate and investors may not get back the principal invested.[*] Past performance is not indicative of future performance. This is a marketing communication. It is for informational purposes only. This document does not constitute investment advice or a recommendation to buy, sell or hold any security and shall not be deemed an offer to sell or a solicitation of an offer to buy any security.

The views and opinions expressed herein, which are subject to change without notice, are those of the issuer or its affiliated companies at the time of publication. Certain data used are derived from various sources believed to be reliable, but the accuracy or completeness of the data is not guaranteed and no liability is assumed for any direct or consequential losses arising from their use. The duplication, publication, extraction or transmission of the contents, irrespective of the form, is not permitted.

This material has not been reviewed by any regulatory authorities. In mainland China, it is for Qualified Domestic Institutional Investors scheme pursuant to applicable rules and regulations and is for information purpose only. This document does not constitute a public offer by virtue of Act Number 26.831 of the Argentine Republic and General Resolution No. 622/2013 of the NSC. This communication's sole purpose is to inform and does not under any circumstance constitute promotion or publicity of Allianz Global Investors products and/or services in Colombia or to Colombian residents pursuant to part 4 of Decree 2555 of 2010. This communication does not in any way aim to directly or indirectly initiate the purchase of a product or the provision of a service offered by Allianz Global Investors. Via reception of his document, each resident in Colombia acknowledges and accepts to have contacted Allianz Global Investors via their own initiative and that the communication under no circumstances does not arise from any promotional or marketing activities carried out by Allianz Global Investors. Colombian residents accept that accessing any type of social network page of Allianz Global Investors is done under their own responsibility and initiative and are aware that they may access specific information on the products and services of Allianz Global Investors. This communication is strictly private and confidential and may not be reproduced. This communication does not constitute a public offer of securities in Colombia pursuant to the public offer regulation set forth in Decree 2555 of 2010. This communication and the information provided herein should not be considered a solicitation or an offer by Allianz Global Investors or its affiliates to provide any financial products in Brazil, Panama, Peru, and Uruguay. In Australia, this material is presented by Allianz Global Investors Asia Pacific Limited ("Allianz Gl AP") and is intended for the use of investment consultants and other institutional/professional investors only, and is not directed to the public or individual retail investors. AllianzGI AP is not licensed to provide financial services to retail clients in Australia. AllianzGI AP is exempt from the requirement to hold an Australian Foreign Financial Service License under the Corporations Act 2001 (Cth) pursuant to ASIC Class Order (CO 03/1103) with respect to the provision of financial services to wholesale clients only. AllianzGI AP is licensed and regulated by Hong Kong Securities and Futures Commission under Hong Kong laws, which differ from Australian laws.

This document is being distributed by the following Allianz Global Investors companies: Allianz Global Investors GmbH, an investment company in Germany, authorized by the German Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin); Allianz Global Investors (Schweiz) AG; in HK, by Allianz Global Investors Asia Pacific Ltd., licensed by the Hong Kong Securities and Futures Commission; in Singapore, by Allianz Global Investors Singapore Ltd., regulated by the Monetary Authority of Singapore [Company Registration No. 199907169Z]; in Japan, by Allianz Global Investors Japan Co., Ltd., registered in Japan as a Financial Instruments Business Operator [Registered No. The Director of Kanto Local Finance Bureau (Financial Instruments Business Operator), No. 424], Member of Japan Investment Advisers Association, the Investment Trust Association, Japan and Type II Financial Instruments Firms Association; in Taiwan, by Allianz Global Investors Taiwan Ltd., licensed by Financial Supervisory Commission in Taiwan; and in Indonesia, by PT. Allianz Global Investors Asset Management Indonesia licensed by Indonesia Financial Services Authority (OJK).

[*Subject to change – depends on the content of the material which may mention certain investment instruments that involve particular risk]

The Grassroots Research® division of Allianz Global Investors commissions investigative market research for asset-management professionals. Research data used to generate Grassroots Research® reports are received from independent, third-party contractors who supply research that, as far as permissible by applicable laws and regulations, may be paid for by commissions generated by trades executed on behalf of clients. We believe these sources of information to be reliable and are providing the information in good faith, but in no way warrant the accuracy or completeness of the information. We have no obligation to update, modify or amend this document or to otherwise notify you in the event that any matter set forth in this document changes or subsequently becomes inaccurate. In addition, information may be available that is not reflected at this time. We accept no liability whatsoever for any direct or consequential loss or damage arising from your use of the information contained in this document. We and our affiliates, officers, employees or clients may effect or have effected transactions for our or their own accounts in the securities mentioned here or in any related investments. Any reference to a particular company shall not be considered an offer to sell, the solicitation of an offer to buy or a recommendation to buy, sell, or hold any security issued by such company. No part of this material may be i) copied, photocopied, or duplicated in any form, by any means, or ii) redistributed without prior written consent. 2815616