

## Asia Emerging Robotics

# Asia Emerging Robotics: The Barometer (March/April 2026)



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In this note, we update the key events in humanoid robot industry, market sentiment, and important data points in Mar & Apr 2026. Readers can download the complete barometer dataset here: [Asia Emerging Robotics Barometer](#).

**Key events** (Exhibit 1). On April 19, China hosted its second-ever humanoid robot half-marathon (21 km), serving as an extreme stress test for the robots. Notably, humanoid robots from Honor, the leading Chinese smartphone maker, not only surpassed the human half-marathon record with a time of 50:26 (vs. the human record of 57:20) but also took the top three places in the race. More detailed comments can be found [here](#). Among Western players, Tesla has delayed the launch of Optimus Gen 3 to mid-2026, preferring to unveil closer to production to mitigate replication risk from its competitors. On the production front, Figure AI is ramping up humanoid robot output from one per day to one per hour, and 1X Technologies has also started production.

**Market Sentiment** (Exhibit 2 to Exhibit 4). Sentiment toward humanoid robots remained weak in April, as Tesla did not unveil Optimus Gen 3 in 1Q26 and pushed the timeline to mid-2026. However, we believe the launch is only a matter of timing, and a strong demonstration of the new model would act as a clear positive catalyst for the sector.

**Monthly data** (Exhibit 5 to Exhibit 18) that underpins the fundamentals of the companies within our coverage.

- **Shuanghuan:** China xEV wholesales volume +1% YoY in Mar (-6% YoY in Jan&Feb); China robotic vacuum sales volume -26% YoY in Mar (-12% YoY in Jan&Feb); China industrial robot production volume +24% YoY in Mar (+31% YoY in Jan&Feb); Our comments on Shuanghuan's 1Q earnings: [here](#):
- **Hesai:** Shipment volume of Hesai's long-range ADAS LiDAR +224% YoY in Mar (+206% YoY in Jan&Feb); Hesai's market share further expanded to 55% in Mar (49% in Jan&Feb).
- **Tuopu:** China xEV wholesales volume +1% YoY in Mar (-6% YoY in Jan&Feb); Shipment volume of Tuopu's air suspension +213% YoY in Mar (+162% YoY in Jan&Feb); Raw material prices remained high in April, with aluminum +24% YoY; Our comments to Tuopu's 1Q earnings: [here](#).
- **Sanhua:** China xEV wholesales volume +1% YoY in Mar (-6% YoY in Jan&Feb); China domestic sales and export volume of air conditioners -2% YoY in Mar (-3% YoY in Jan&Feb) and the volume was expected to -7% YoY in 2Q26 (based on production plan); Raw material prices remained high in April, with copper +29% YoY and aluminum +24% YoY; Our comments to Sanhua's 1Q earnings: [here](#).
- **Leader Drive:** China industrial robot production volume +24% YoY in Mar (+20% YoY in Jan&Feb); Our comments on Leader Drive's 1Q earnings: [here](#).



## INVESTMENT IMPLICATIONS

We rate Hesai, Tuopu, and Shuanghuan Outperform; Sanhua Market-Perform; and Leader Drive Underperform.

## DETAILS

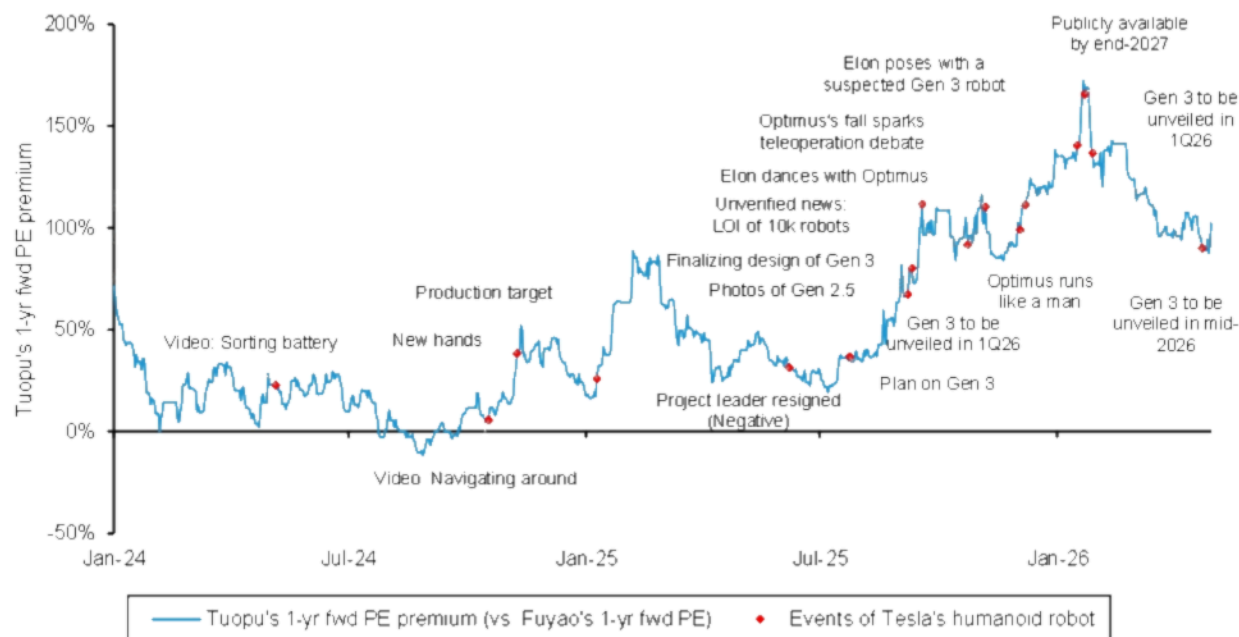
## EXHIBIT 1: Key events in the humanoid robot industry (Mar &amp; Apr 2026)

| Date         | Region      | Institute                       | Ticker                      | Events                                                                                                                                                                                                                                                   |
|--------------|-------------|---------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mar 2, 2026  | China       | Xiaomi                          | 1810.HK                     | Xiaomi tests humanoid robots in a car plant.                                                                                                                                                                                                             |
| Mar 2, 2026  | Germany     | Schaeffler                      | SHAO.GR                     | Schaeffler and Leju Robotics enter into strategic partnership for the application and transfer to industrial-scale manufacturing of humanoid robots.                                                                                                     |
| Mar 15, 2026 | China       | Galbot                          | Unlisted                    | Researchers from Galbot and Tsinghua University enable a humanoid robot to play tennis.                                                                                                                                                                  |
| Mar 17, 2026 | China       | X Square                        | Unlisted                    | X Square, together with 58 Home, has officially launched a new intelligent home-cleaning service in Shenzhen. The world's first robotic housekeeper has formally "started work," collaborating with human cleaners to complete household cleaning tasks. |
| Mar 19, 2026 | USA         | Amazon                          | AMZN.US                     | Amazon acquires robotic doorstep delivery provider RIVR.                                                                                                                                                                                                 |
| Mar 20, 2026 | China       | Unitree                         | Unlisted                    | Unitree releases its IPO prospectus, aiming to raise USD610mn.                                                                                                                                                                                           |
| Mar 24, 2026 | USA         | Amazon                          | AMZN.US                     | Amazon acquires humanoid developer Fauna Robotics.                                                                                                                                                                                                       |
| Mar 25, 2026 | USA         | Figure                          | Unlisted                    | "Figure 03" robot accompanies first lady Melania Trump to a White House summit.                                                                                                                                                                          |
| Mar 25, 2026 | USA         | Boston Dynamics                 | Subsidiary of Hyundai Motor | Hyundai will bring Boston Dynamics robots to the FIFA World Cup 2026.                                                                                                                                                                                    |
| Mar 26, 2026 | USA         | U.S. government                 | -                           | A pair of United States senators wants to ban the use of Chinese robotics by the government.                                                                                                                                                             |
| Mar 28, 2026 | China       | Xiaomi                          | 1810.HK                     | Xiaomi unveils new dexterous hand with human-like touch and cooling system.                                                                                                                                                                              |
| Mar 30, 2026 | China       | AgiBot                          | Unlisted                    | AgiBot announces they have mass produced 10,000 units of humanoid robots accumulatively.                                                                                                                                                                 |
| Apr 2, 2026  | USA         | Generalist AI                   | Unlisted                    | Generalist introduces GEN-1 general-purpose model for physical AI.                                                                                                                                                                                       |
| Apr 10, 2026 | South Korea | KIA                             | 000270.KS                   | KIA plans to deploy the Atlas humanoid robots in its US factories from 2029.                                                                                                                                                                             |
| Apr 11, 2026 | China       | Unitree                         | Unlisted                    | Unitree makes a humanoid that runs at 10m/s.                                                                                                                                                                                                             |
| Apr 12, 2026 | Japan       | Toyota Motor                    | 7203.JP                     | Toyota Motor unveils its new humanoid basketball-playing robot "Cue7."                                                                                                                                                                                   |
| Apr 16, 2026 | USA         | Skild AI                        | Unlisted                    | Skild AI acquires Fetch Robotics assets from Zebra Technologies.                                                                                                                                                                                         |
| Apr 16, 2026 | Germany     | Siemens                         | SIE.GR                      | Siemens and Humanoid test the HMND 01 Alpha wheeled humanoid robot in Siemens' electronics factory for logistics tasks.                                                                                                                                  |
| Apr 19, 2026 | China       | Honor                           | Unlisted                    | Honor's humanoid robot breaks human half marathon record in 50min 26sec.                                                                                                                                                                                 |
| Apr 22, 2026 | China       | State Grid Corporation of China | Unlisted                    | State Grid Corporation of China intends to procure ~8,500 units of various robots in 2026, with total investment of ~RMB6.8bn.                                                                                                                           |
| Apr 22, 2026 | Germany     | Schaeffler                      | SHAO.GR                     | Schaeffler enters into strategic partnership with Hexagon Robotics and VinDynamics.                                                                                                                                                                      |
| Apr 23, 2026 | USA         | Tesla                           | TSLA.US                     | Tesla 1Q26 earnings call:<br>· Tesla plans to unveil Optimus Gen 3 in mid-2026.<br>· Tesla is constructing a second Optimus factory at Giga Texas location and that will probably start production around summer next year.                              |
| Apr 27, 2026 | China       | Xiaomi                          | 1810.HK                     | Xiaomi unveils its latest humanoid robot during its investor day.                                                                                                                                                                                        |
| Apr 29, 2026 | USA         | Figure                          | Unlisted                    | Figure is ramping up production of its humanoid robots, increasing output from one robot per day to one per hour.                                                                                                                                        |
| Apr 30, 2026 | USA         | 1X Technologies                 | Unlisted                    | 1X kicks off full-scale production of humanoid robot Neo.                                                                                                                                                                                                |

Source: Industry news, companies' websites, Bernstein analysis

EXHIBIT 2: **Tuopu: Valuation premium attributed to Tesla & humanoid robots**

Tuopu's valuation premium vs. Events of Tesla humanoid robot

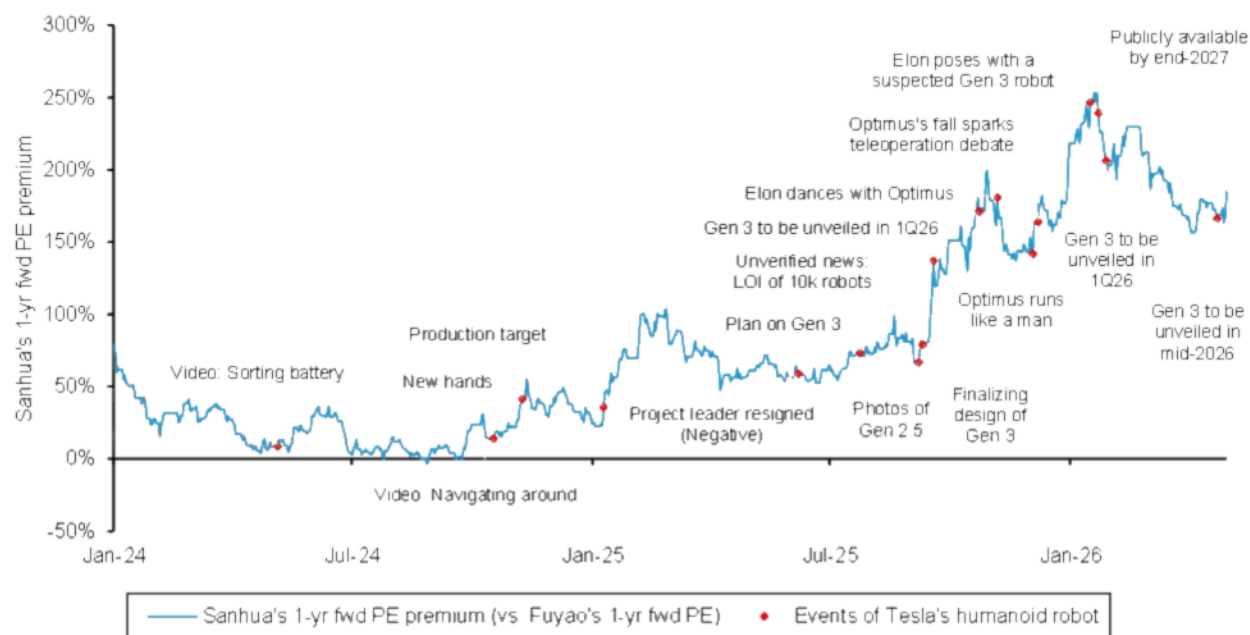


Note: We use Fuyao Glass (600660.CH/3606.HK) as the benchmark. Fuyao Glass is not covered by Bernstein.

Source: Tesla, industry news, Tuopu, Fuyao Glass, Bloomberg, Bernstein analysis

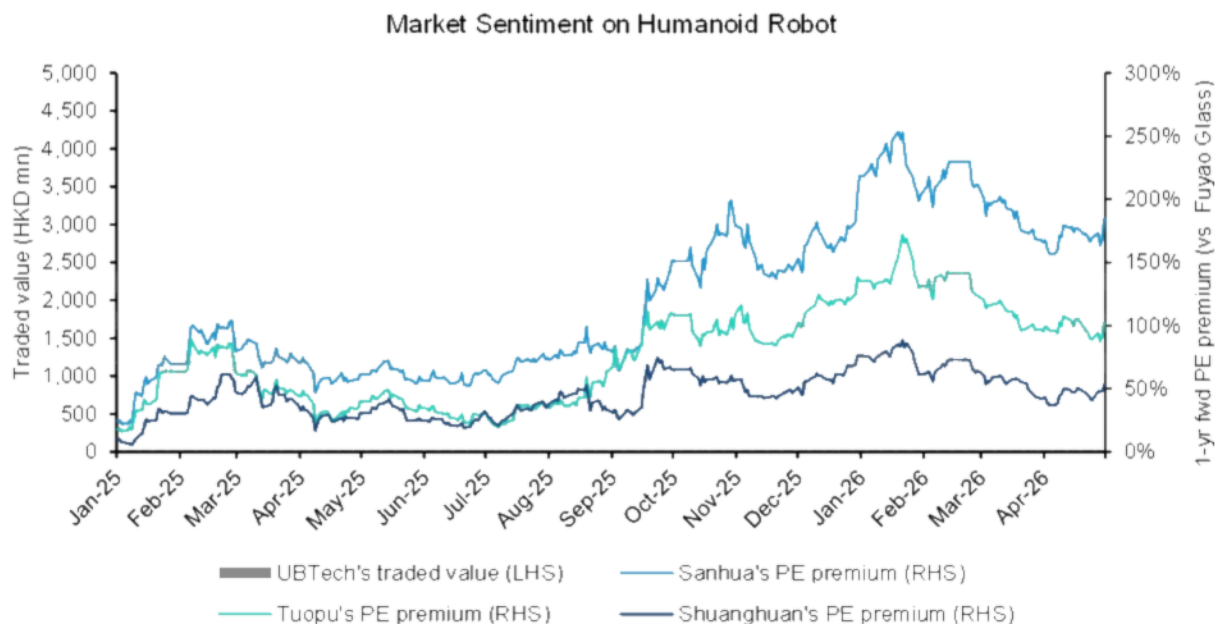
EXHIBIT 3: **Sanhua: Valuation premium attributed to Tesla & humanoid robots**

Sanhua's valuation premium vs. Events of Tesla humanoid robot

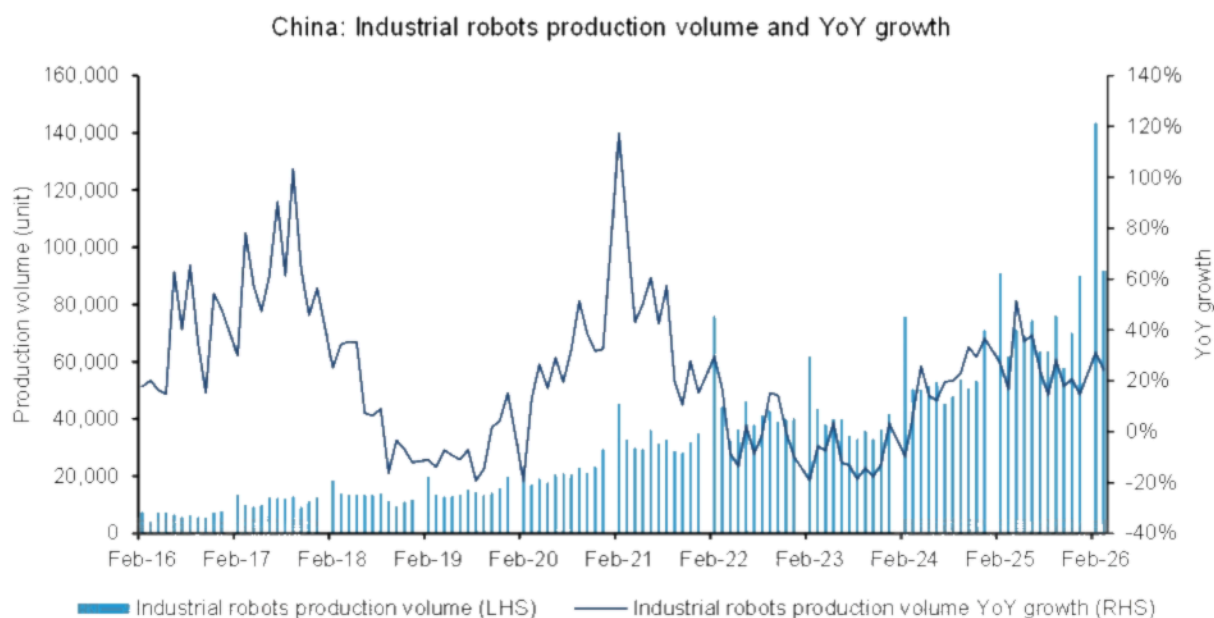


Note: We use Fuyao Glass (600660.CH/3606.HK) as the benchmark. Fuyao Glass is not covered by Bernstein.

Source: Tesla, industry news, Sanhua, Fuyao Glass, Bloomberg, Bernstein analysis

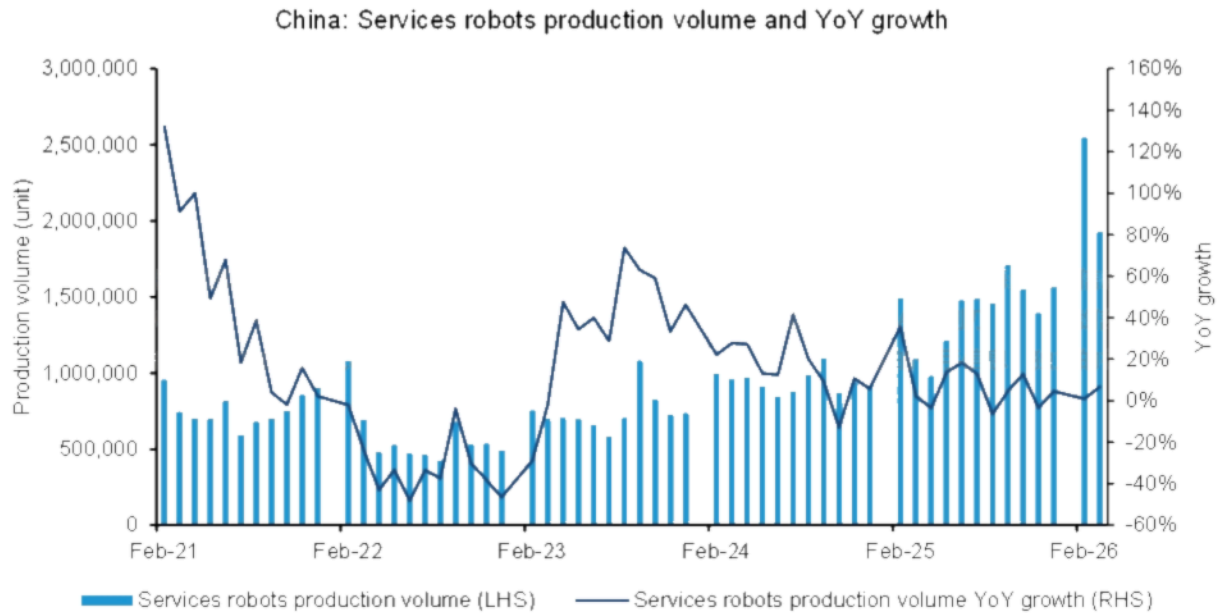
EXHIBIT 4: **Market sentiment on humanoid robot**

Note: We use Fuyao Glass (600660.CH/3606.HK) as the benchmark. Fuyao Glass and UBTech (9880.HK) are not covered by Bernstein.  
Source: Tesla, industry news, Tuopu, Shuanghuan, Fuyao Glass, UBTech, Bloomberg, Bernstein analysis

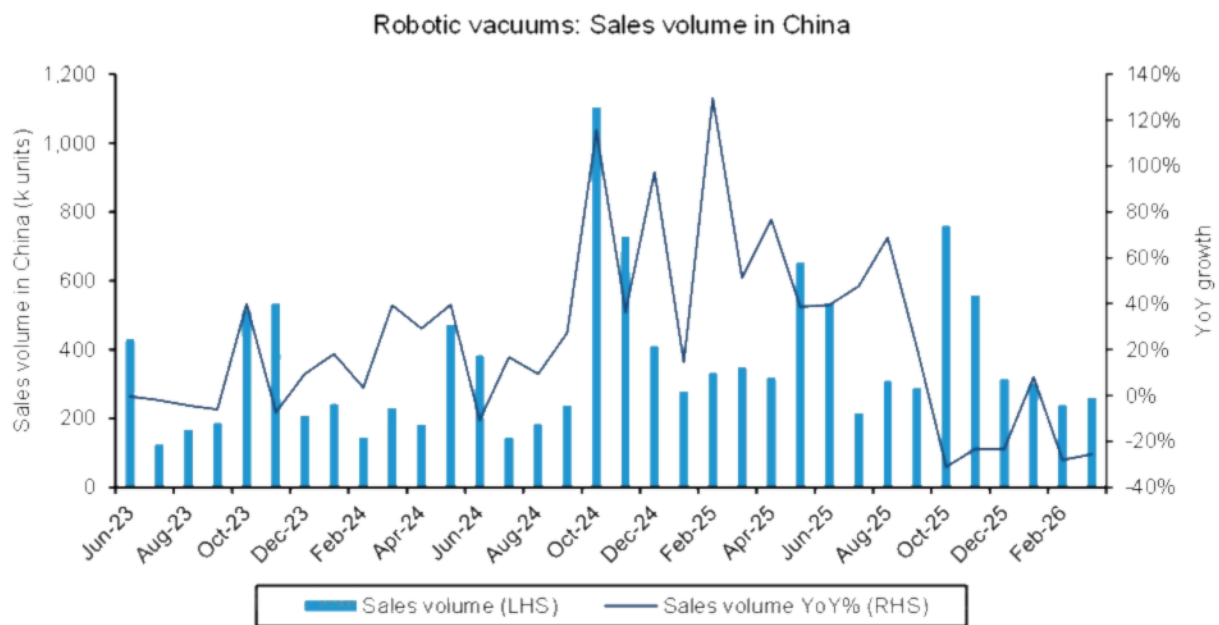
EXHIBIT 5: **Production volume of industrial robots in China**

Source: China NBS, Bernstein analysis



EXHIBIT 6: **Production volume of services robots in China**

Source: China NBS, Bernstein analysis

EXHIBIT 7: **Sales volume of robotic vacuums in China**

Note: The data covers offline sales channels and online sales channels (excl. Doyin).

Source: AVC, Bernstein analysis

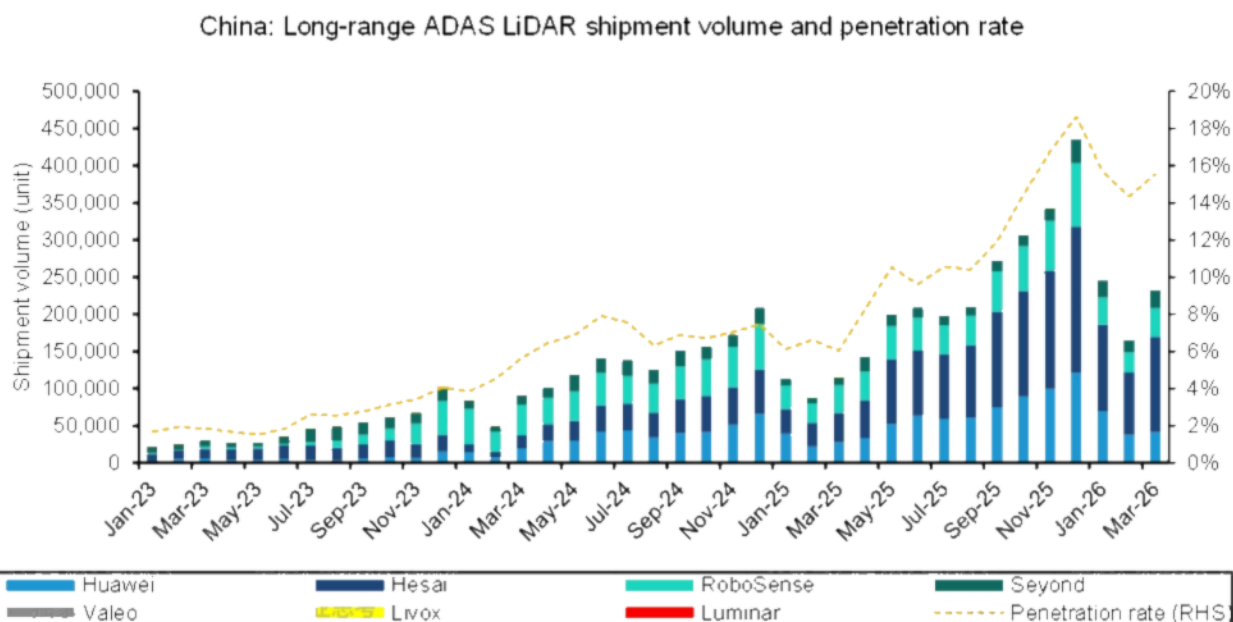
## EXHIBIT 8: China xEVs wholesale volume



Note: xEVs include BEVs, PHEVs, hybrid and others

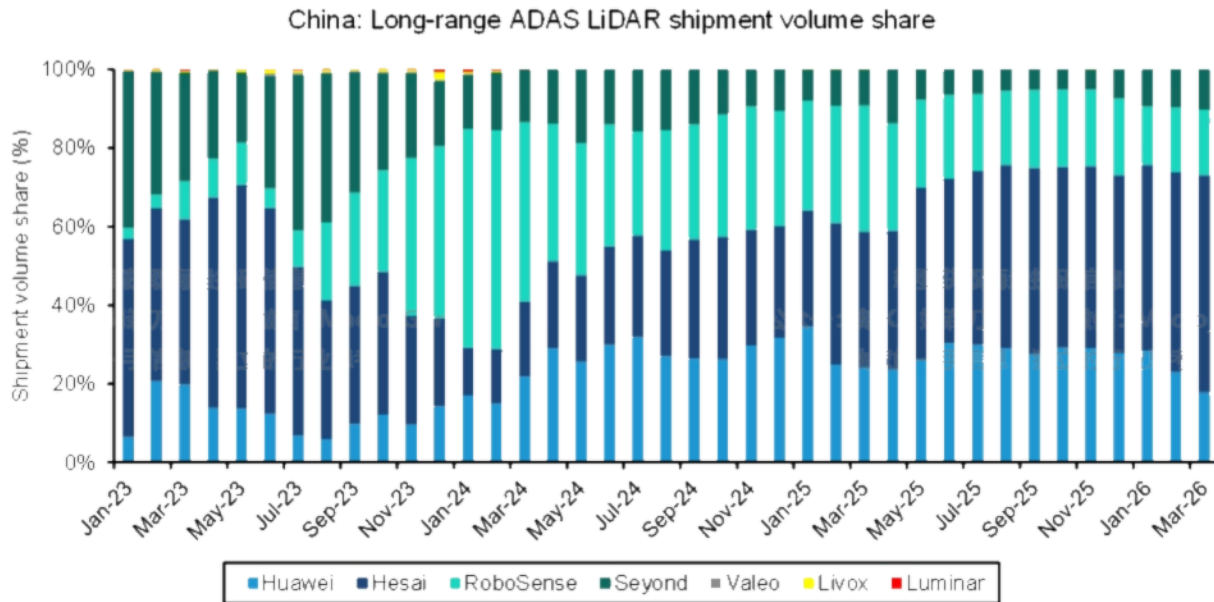
Source: CAAM, Bernstein Asian Autos team, Bernstein analysis and estimates

## EXHIBIT 9: Long-range ADAS LiDAR in China: Increasing penetration and volume share breakdown



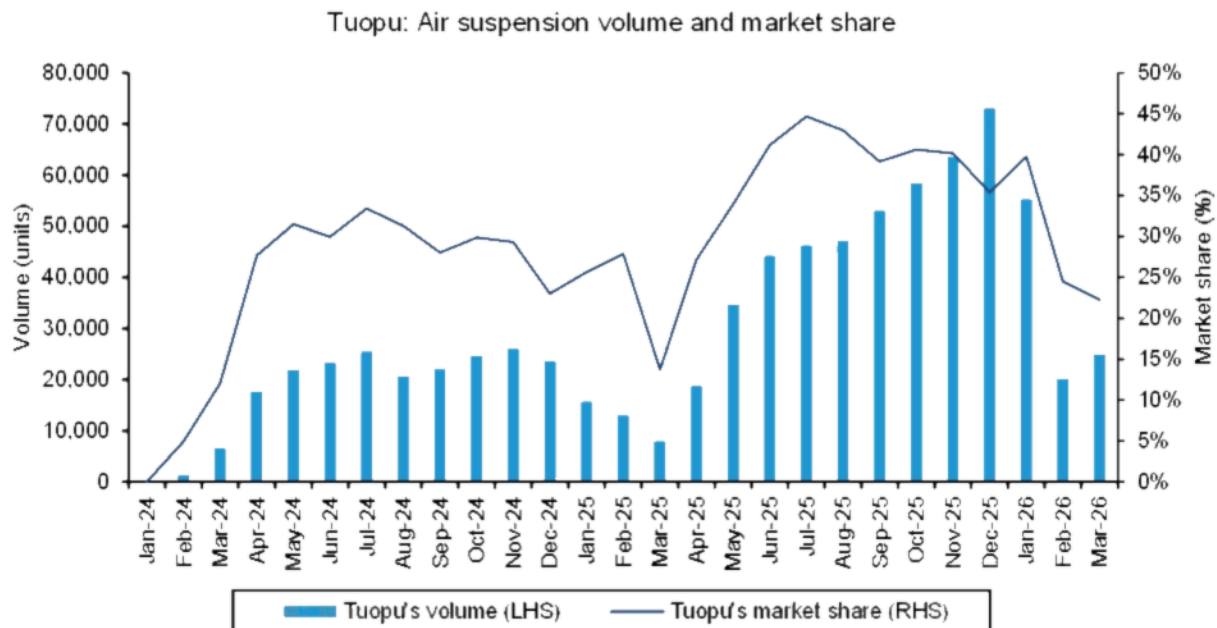
Source: Gasgoo, Bernstein analysis

## EXHIBIT 10: Long-range ADAS LiDAR in China: Market share breakdown



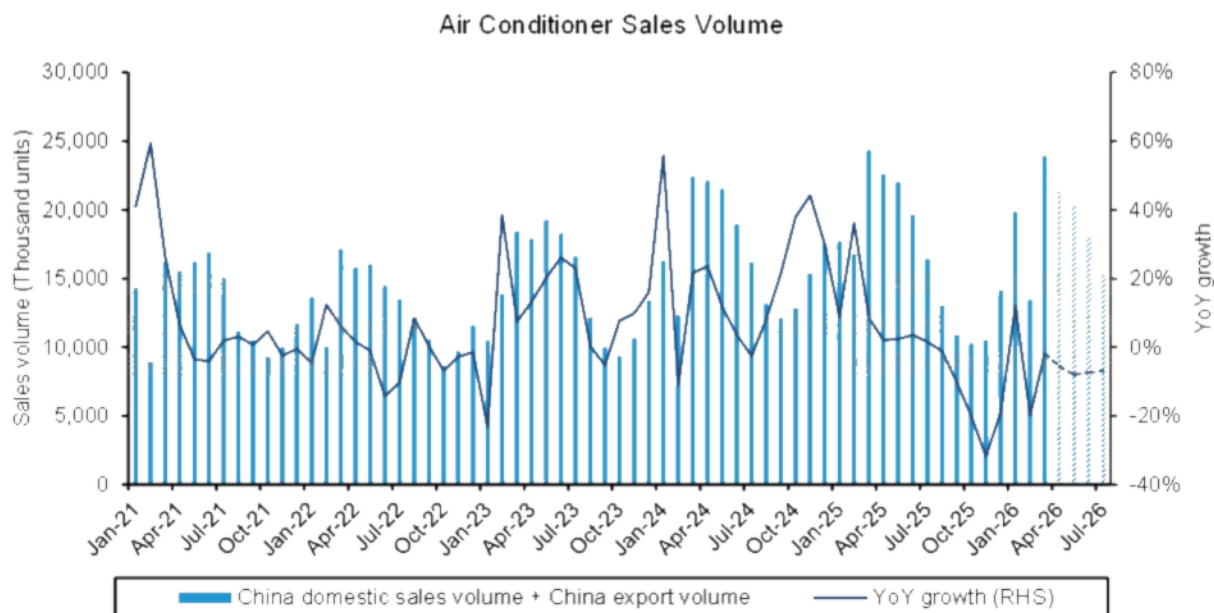
Source: Gasgoo, Bernstein analysis

## EXHIBIT 11: Tuopu's air suspension volume and market share



Source: Gasgoo, Bernstein analysis

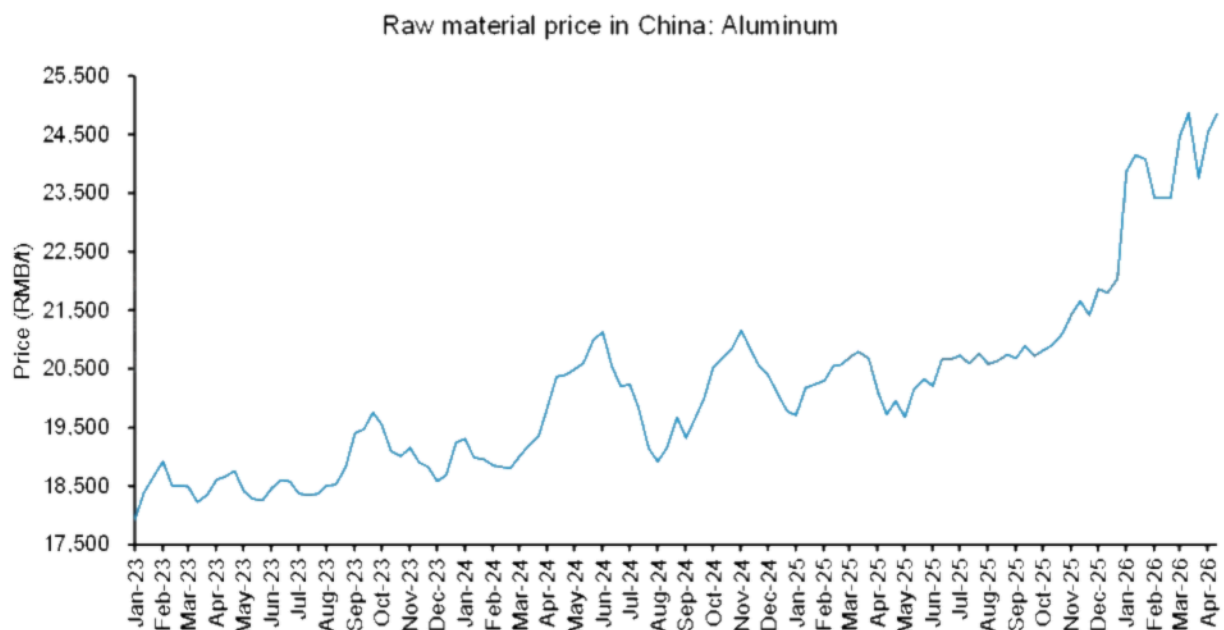


EXHIBIT 12: **Air conditioner sales volume (China domestic sales + export)**

Source: ChinalOL, Bernstein China Consumer Team, Bernstein analysis

EXHIBIT 13: **Raw material price: Copper**

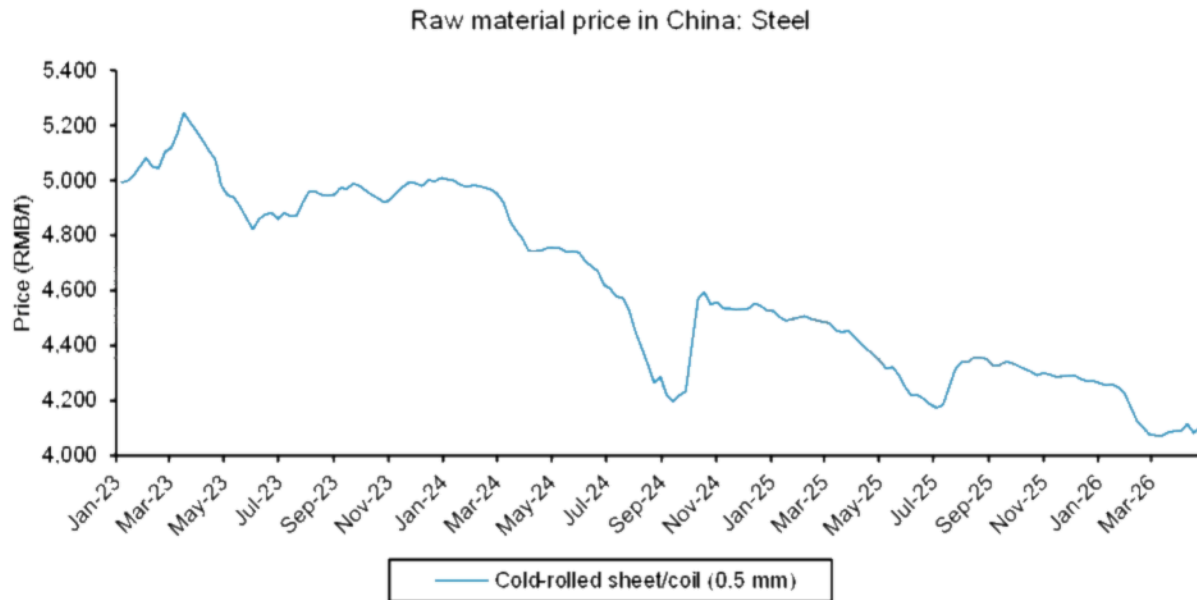
Source: China NBS, Wind, Bernstein analysis

EXHIBIT 14: **Raw material price: Aluminum**

Source: China NBS, Wind, Bernstein analysis

EXHIBIT 15: **Raw material price: Butadiene rubber**

Source: China NBS, Wind, Bernstein analysis

EXHIBIT 16: **Raw material price: Steel**

Source: China NDRC, Bernstein analysis

EXHIBIT 17: **Raw material price: Gear steel**

Source: Wind, Bernstein analysis

EXHIBIT 18: **Raw material price: Polypropylene**

Source: Wind, Bernstein analysis

**INVESTMENT IMPLICATIONS**

We rate Shuanghuan, Hesai and Tuopu Outperform, Sanhua Market-Perform and Leader Drive Underperform.

## BERNSTEIN TICKER TABLE

| Ticker                   | Rating | 1 May 2026 |                  | Price<br>Target | TTM<br>Rel.<br>Perf. | Cur | Reported EPS |       |       | Reported P/E (x) |       |       |
|--------------------------|--------|------------|------------------|-----------------|----------------------|-----|--------------|-------|-------|------------------|-------|-------|
|                          |        | Cur        | Closing<br>Price |                 |                      |     | 2025A        | 2026E | 2027E | 2025A            | 2026E | 2027E |
| HSAIL.US (Hesai)         | O      | USD        | 22.01            | 32.00           | (11.2)%              | CNY | 2.92         | 3.46  | 6.08  | 51.5             | 43.5  | 24.7  |
| 2525.HK (Hesai)          | O      | HKD        | 173.00           | 249.00          | NA                   | CNY | 2.92         | 3.46  | 6.08  | 51.6             | 43.6  | 24.8  |
| 688017.CH (Leader Drive) | U      | CNY        | 224.12           | 115.00          | 13.9%                | CNY | 0.69         | 0.83  | 0.96  | 323.7            | 268.7 | 233.1 |
| 601689.CH (Tuopu)        | O      | CNY        | 60.14            | 75.00           | (22.9)%              | CNY | 1.61         | 1.81  | 2.36  | 37.4             | 33.2  | 25.5  |
| 2050.HK (Sanhua)         | M      | HKD        | 33.20            | 27.00           | NA                   | CNY | 1.03         | 0.97  | 1.11  | 28.1             | 29.8  | 26.1  |
| 002050.CH (Sanhua)       | M      | CNY        | 46.92            | 39.00           | 37.0%                | CNY | 1.03         | 0.97  | 1.11  | 45.6             | 48.3  | 42.4  |
| 002472.CH (Shuanghuan)   | O      | CNY        | 39.27            | 60.00           | (21.5)%              | CNY | 1.50         | 1.70  | 2.00  | 26.2             | 23.1  | 19.7  |
| ASIA                     |        |            | 1,836.63         |                 |                      |     |              |       |       |                  |       |       |

O - Outperform, M - Market-Perform, U - Underperform, NR - Not Rated, CS - Coverage Suspended

Source: Bloomberg, Bernstein estimates and analysis.