

Japan Capital Goods

Japan's December robotics data:
Production still weak

Industry Overview

December robotics data: weakness continues

The Ministry of Economy, Trade and Industry (METI) and the Ministry of Finance (MoF) published Japan's robotics production and export data for December. Japan's robotics production volume fell 31% YoY to 14,035 units (vs. -34% YoY in November). Production has trended close to -30% YoY for four months as the industry adjusts to high inventory levels. Exports declined 32% YoY (vs. -26% YoY in November), in line with weak production. Moreover, per the Japan Robot Association (JRA), robotics orders value in the December quarter fell 29% YoY (vs. -32% in the September quarter). Overall trends do not appear to be worsening further. However, we expect weakness to persist in the near term, given Fanuc's recent commentary that inventory adjustments could continue for at least another six months. We expect a tepid recovery in 2024 demand (low-single-digit %), followed by stronger growth in 2025/26 (see [our deep dive report for details](#)).

Slowdown in US; China production recovers

Total exports decelerated from -26% YoY in November to -32% YoY in December. Exports to the US deteriorated to -55% YoY (vs. -26% YoY in November), albeit against relatively high comps. On the other hand, Europe improved to +39% YoY (vs. -40% YoY). Of note, while exports to China weakened to -49% YoY (vs. -41% YoY), robot production in China recovered to +3.4% YoY (vs. -13% YoY), turning positive for the first time in seven months.

Key robotic drivers recovering

According to our data analysis (see [our report on forecasting robot production](#)), we believe the most useful forecasters of robot production are the global auto production volumes, Japan's chipmaking-equipment billings, South Korea's semis exports, and industrial production (IP) in Japan. The semis-related data appear to have bottomed. For example, Japan's chipmaking-equipment billings were flattish YoY in Dec. (-11% YoY in Nov.) and South Korea's semis exports were +22% YoY (+13% YoY). Our global semis team is looking for semis capex to decline 1% YoY in 2024, followed by 6% YoY growth in 2025 (see [Global Semiconductors: 2024 Playbook: bumpy yet bountiful, focus on quality in Cloud, Cars, Complexity 15 December 2023](#)). Auto production by Japan makers was +11% YoY in Dec. (vs. +15% YoY in Nov.), continuing the solid recovery trend (see [Japan Automobiles: JPN OEMs' December data: Healthy overall recovery plus high China growth 30 January 2024](#)). BofA Global Research expects global auto production to grow 1% in 2024 (see [European Automobiles: Global LVP tracker: climbing the \(Great\) wall of worry 19 January 2024](#)). Lastly, Japan's IP grew 2% MoM.

31 January 2024

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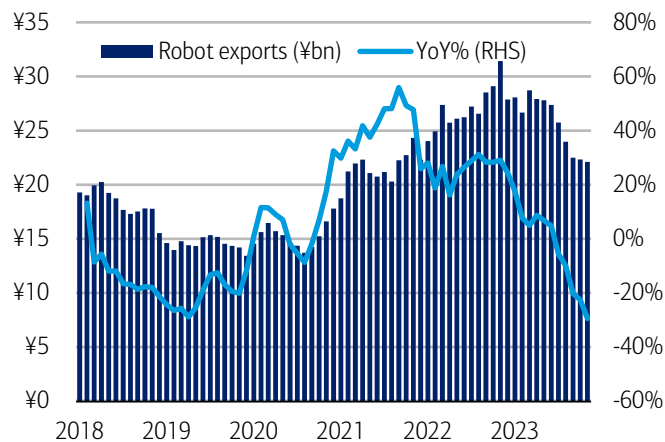
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Exhibit 1: Japan's robot exports (value, 3MMAV)

Robotic exports continue to decline YoY

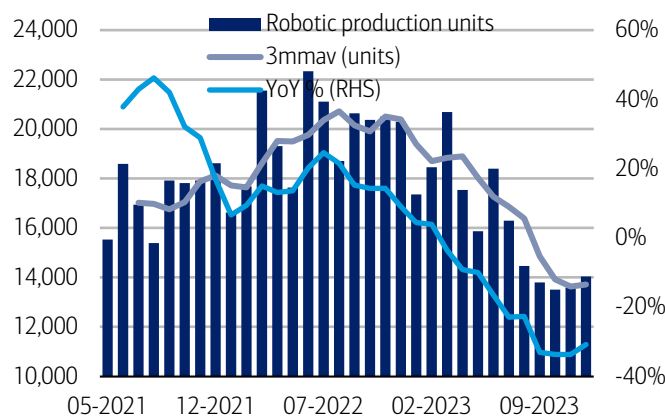


Source: MoF, BofA Global Research

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Exhibit 3: Japan's robotic production units

Robotics production was -31% YoY

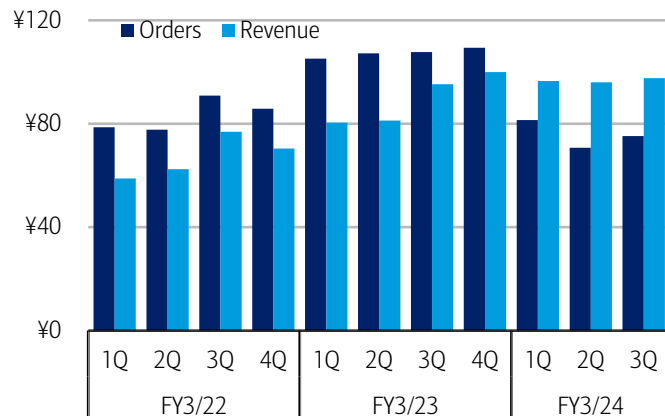


Source: METI, BofA Global Research

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Exhibit 5: Fanuc: Robot orders and revenue (¥bn)

Orders were +6% QoQ, driven by EV-related demand in Europe

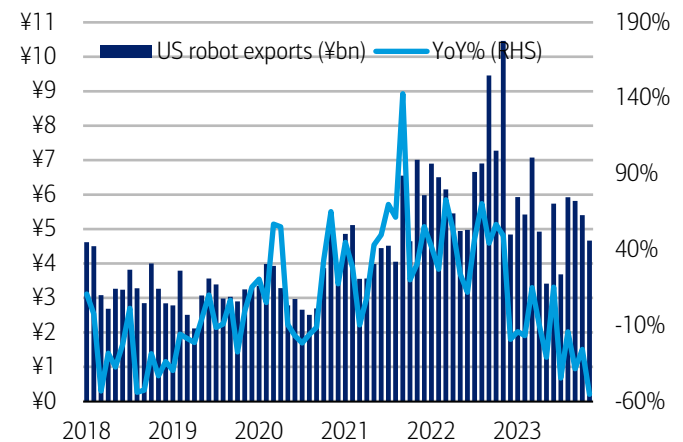


Source: Company data, BofA Global Research

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Exhibit 2: US robot exports (¥bn)

Exports to US were -55% YoY

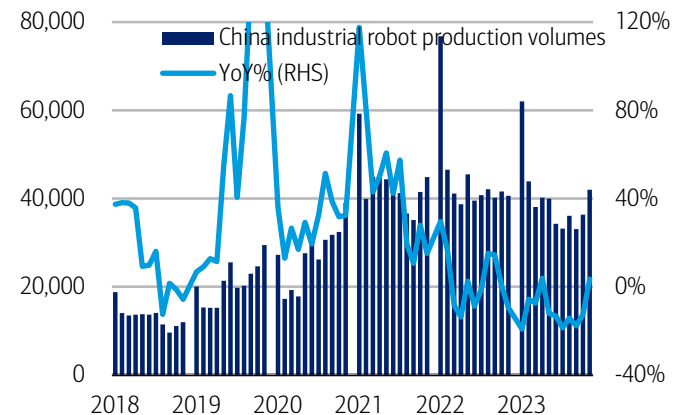


Source: MoF, BofA Global Research

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Exhibit 4: China's industrial robot production

China's production volume was +3% YoY

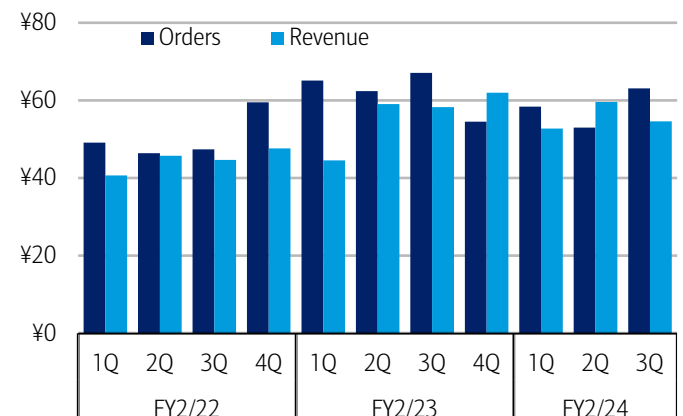


Source: National Bureau of Statistics of China, BofA Global Research

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Exhibit 6: Yaskawa Electric: Robotics orders and revenue (¥bn)

Orders were +19% QoQ, driven by large-scale orders from South Korea



Source: Company data, BofA Global Research

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