

## Chemical Metal Watch

## Japan trade/production data: Expect electricity price to rise slightly in Mar

Industry Overview

## Japan trade data for December 2023: LNG import prices up

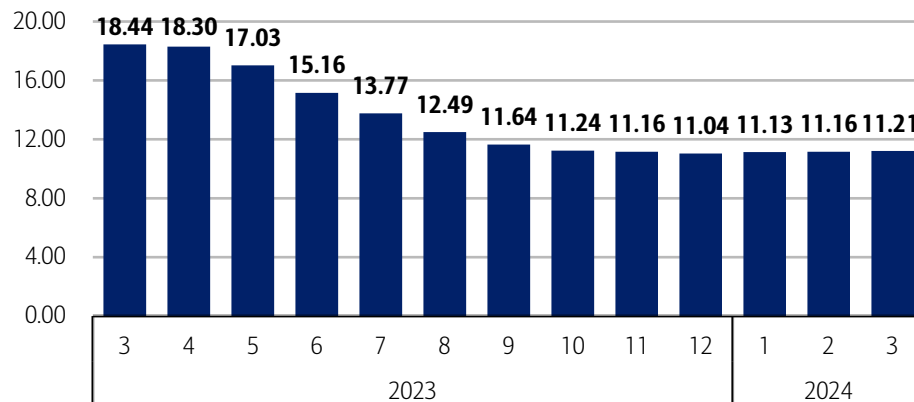
Based on Japan's trade data for Dec, we expect electricity prices to rise slightly MoM in March. Given rising LNG prices, we also expect electricity prices to rise further in April. But, we expect LNG import prices to drop since crude oil prices, which correlate strongly with Japan's LNG import prices, are declining and LNG spot prices are falling. In addition, we lower our 2024 electricity price outlook from ¥11.86/kWh to ¥11.15/kWh since we cut our 2024 Brent crude oil price outlook from US\$90/bbl to US\$80/bbl. Lower electricity prices benefit power-intensive industries such as steel, non-ferrous metals, silicon wafers, industrial gases, and glass fibers. In Dec, Japan's steel exports declined 4.3% YoY but steel imports inched up 0.7% YoY. Pressure from imports continues.

## Japan output data for Nov 2023: Chloroprene rubber weak

The Ministry of Economy, Trade and Industry (METI)'s production statistics for November showed chloroprene rubber and polyphenylene sulfide inventory has reached appropriate levels but production is notably weak. For companies like Denka and Toray, short-term earnings weakness is a concern.

**Exhibit 1: Estimated electricity price at night time in Japan (JPY/kwh)**

March price will increase a bit.



Note: This price is average price of Tokyo Electric, Chubu Electric, Kansai Electric, Kyushu Electric and Tohoku Electric. This price includes 80% reduction of renewable energy power generation promotion levy. **Source:** BofA Global Research estimates

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Equity

Japan

Chemicals, Metal &amp; Cables, Trading house

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LNG: Liquefied natural gas

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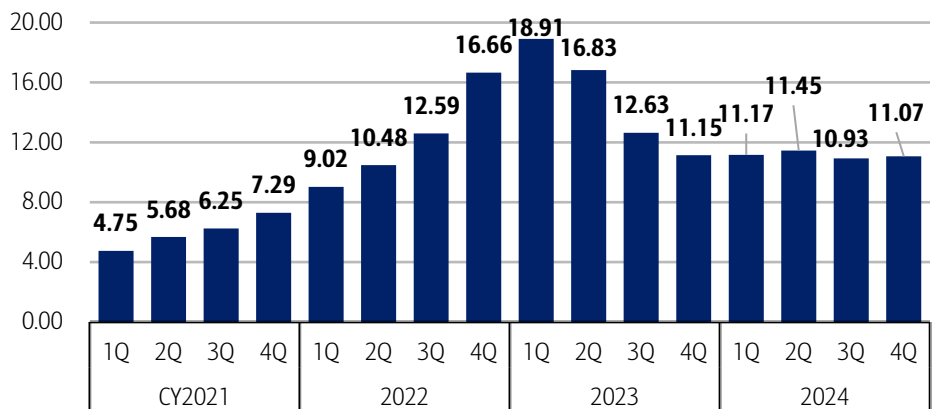
**Refer to important disclosures on page 9 to 11.**

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Timestamp: 24 January 2024 02:12AM EST

**Exhibit 2: Estimated electricity price at night time in Japan (JPY/kwh)**

Forecasts for 2Q 2024 onwards

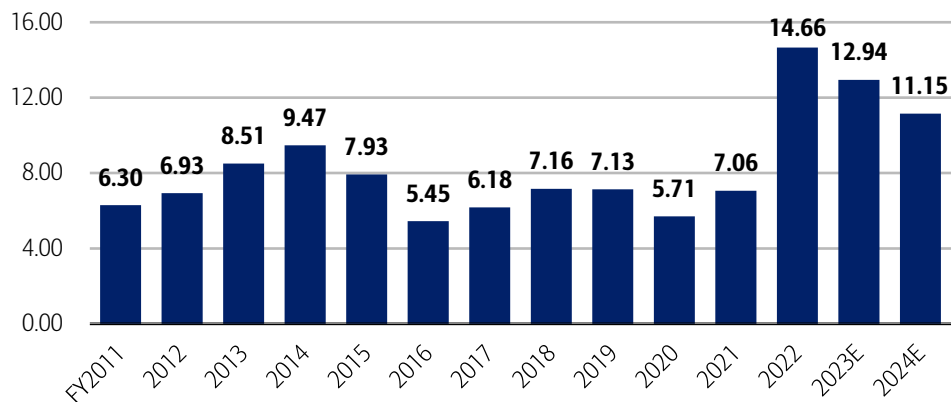


Note: This price is average price of Tokyo Electric, Chubu Electric, Kansai Electric, Kyushu Electric and Tohoku Electric. This price includes 80% reduction of renewable energy power generation promotion levy. **Source:** BofA Global Research estimates

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**Exhibit 3: Estimated electricity price at night time in Japan (JPY/kwh)**

FY24 electricity prices to decline YoY

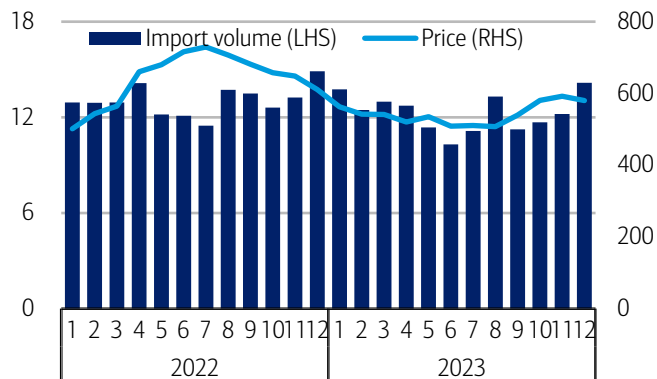


Note: This price is average price of Tokyo Electric, Chubu Electric, Kansai Electric, Kyushu Electric and Tohoku Electric. This price includes 80% reduction of renewable energy power generation promotion levy. **Source:** BofA Global Research estimates

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**Exhibit 4: Japan crude oil import volume & price (Million kl, US\$/kl)**

Crude oil import price down

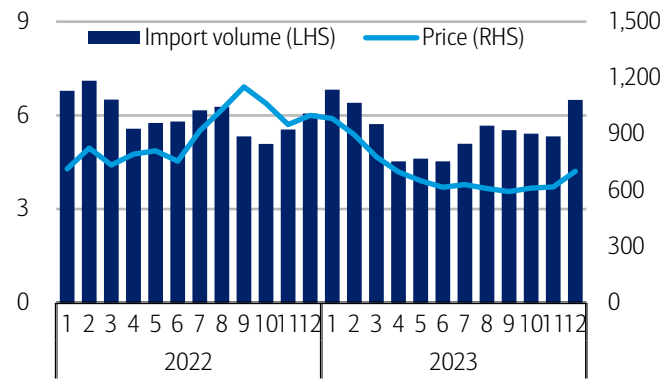


Source: MoF

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**Exhibit 5: Japan LNG import price & volume (Million ton, US\$/ton)**

LNG import price up

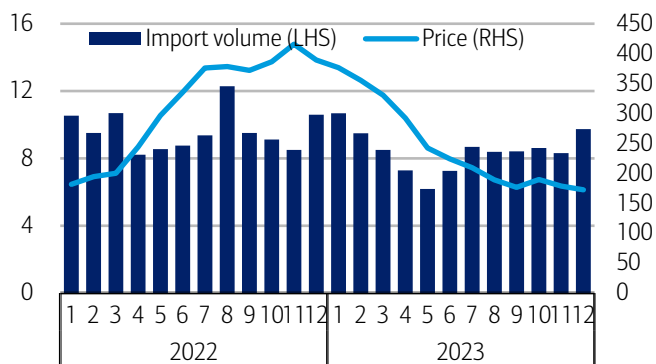


Source: MoF

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**Exhibit 6: Japan thermal coal import volume & price (Million ton, US\$/ton)**

Thermal coal price down slightly

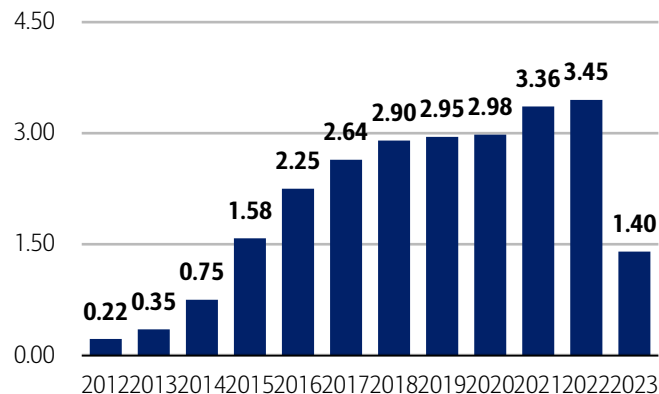


Source: MoF

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**Exhibit 7: Renewable energy power promotion surcharge (JPY/kwh)**

Some chemicals/metals companies receive 80% reduction in surcharge

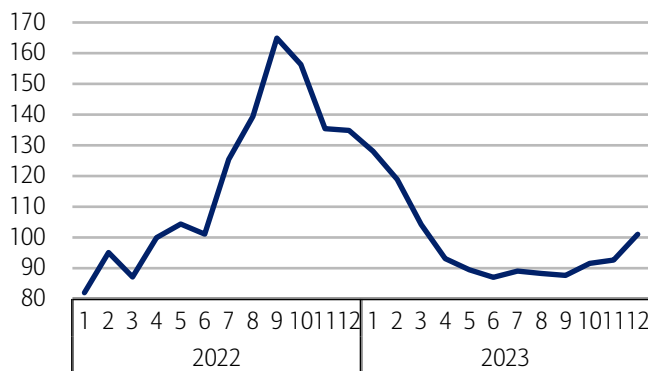


Source: METI

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**Exhibit 8: Japan LNG import price (000JPY/ton)**

Import price up

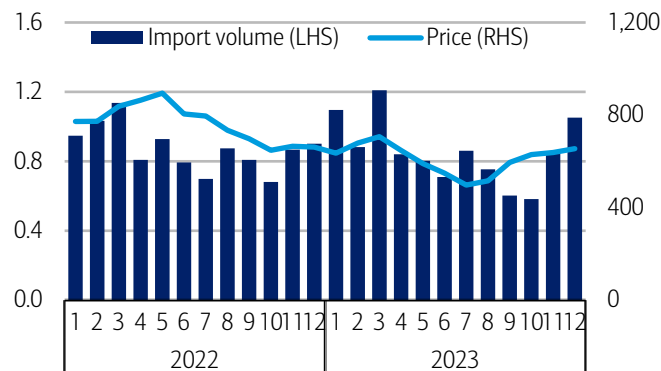


Source: MoF

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**Exhibit 9: Japan LPG import price & volume (Million ton, US\$/ton)**

Import price up

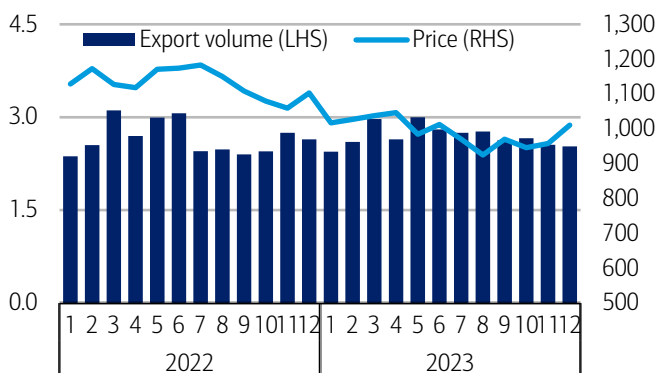


Source: MoF

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**Exhibit 10: Japan steel products export volume & price (Million ton, US\$/ton)**

Steel exports down 4.3% YoY

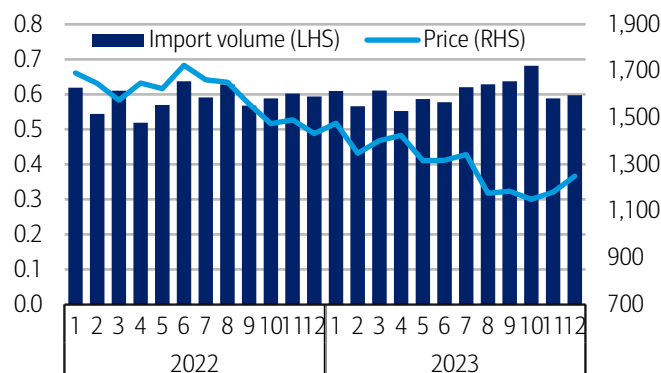


Source: MoF

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**Exhibit 11: Japan steel products import volume & price (Million ton, US\$/ton)**

Steel imports up 0.7% YoY



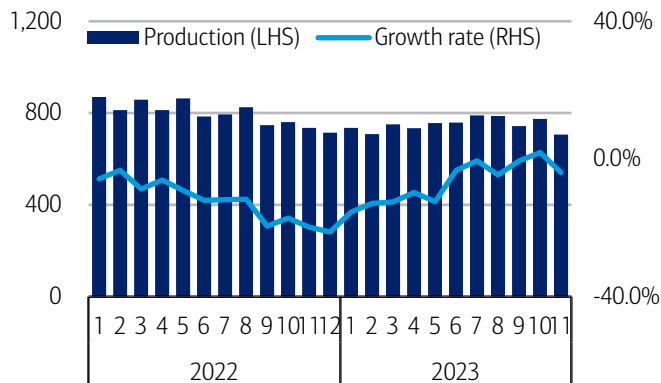
Source: MoF

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# Japan production/inventory data

**Exhibit 12: Japan oxygen gas production (Million m3, YoY)**

Suppliers: Nippon Sanso HD, Air Water, Iwatani

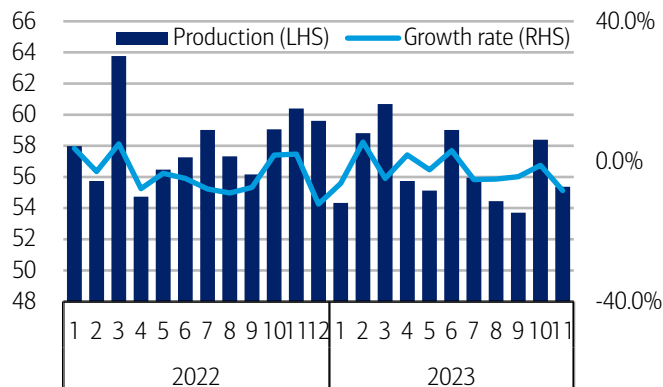


Source: METI, BofA Global Research

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**Exhibit 13: Japan liquified oxygen production (Million m3, YoY)**

Suppliers: Nippon Sanso HD, Air Water, Iwatani

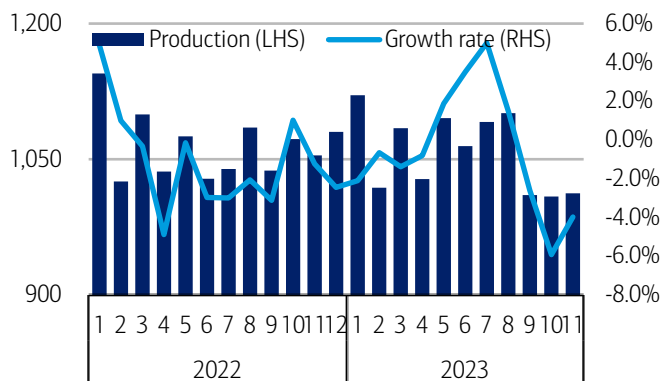


Source: METI, BofA Global Research

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**Exhibit 14: Japan liquified oxygen production (Million m3, YoY)**

Suppliers: Nippon Sanso HD, Air Water, Iwatani

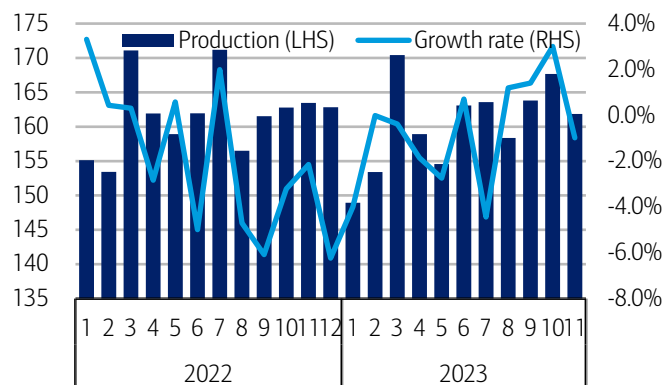


Source: METI, BofA Global Research

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**Exhibit 15: Japan liquified nitrogen production (Million m3, YoY)**

Suppliers: Nippon Sanso HD, Air Water, Iwatani

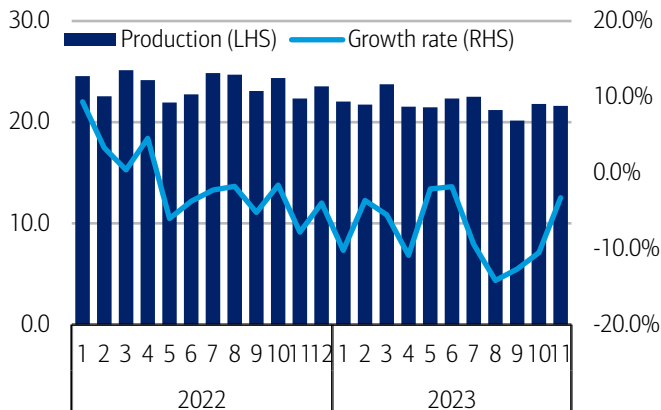


Source: METI, BofA Global Research

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**Exhibit 16: Japan argon production (Million m3, YoY)**

Suppliers: Nippon Sanso HD, Air Water, Iwatani

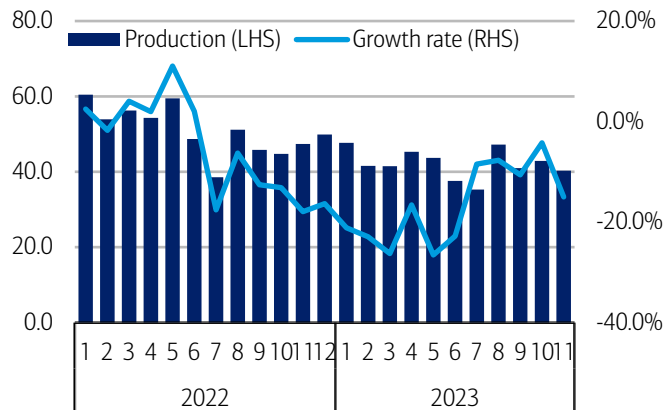


Source: METI, BofA Global Research

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**Exhibit 17: Japan hydrogen production (Million m3, YoY)**

Suppliers: Nippon Sanso HD, Air Water, Iwatani

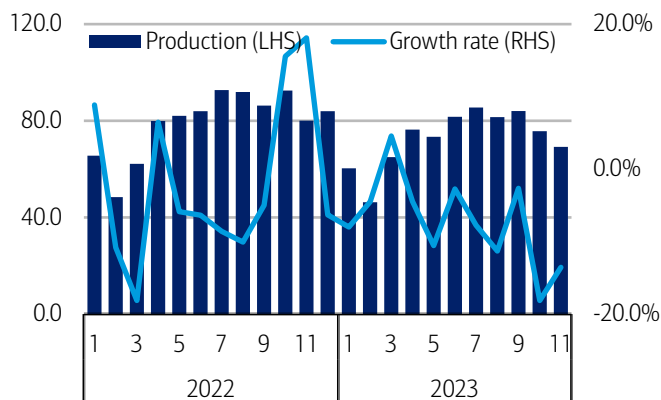


Source: METI, BofA Global Research

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**Exhibit 18: Japan CO2 production (000ton, YoY)**

Suppliers: Nippon Sanso HD, Air Water, Iwatani, Resonac

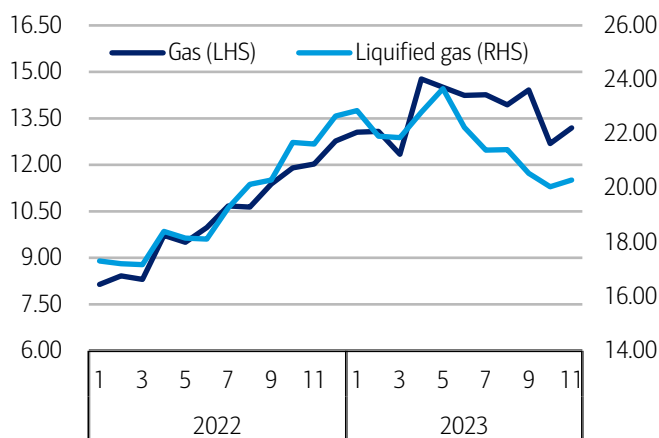


Source: METI, BofA Global Research

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**Exhibit 19: Oxygen shipment price in Japan (JPY/m3)**

Suppliers: Nippon Sanso HD, Air Water, Iwatani

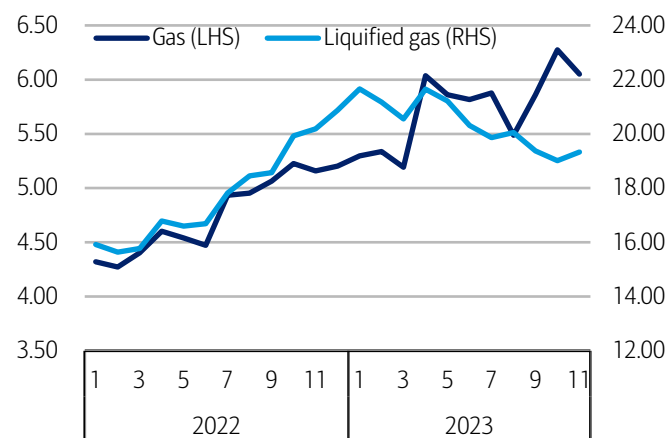


Source: METI

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**Exhibit 20: Nitrogen shipment price in Japan (JPY/m3)**

Suppliers: Nippon Sanso HD, Air Water, Iwatani

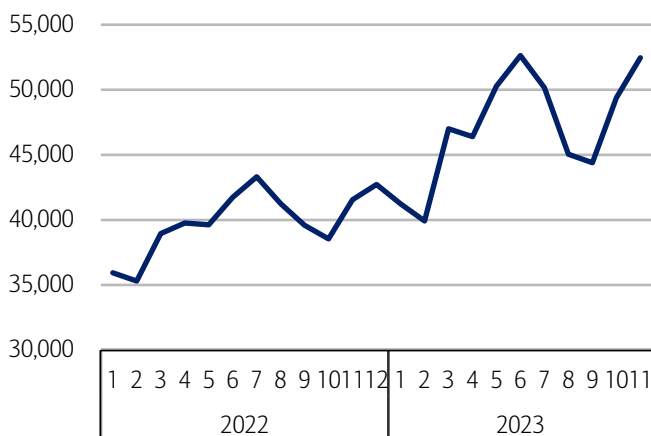


Source: METI

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**Exhibit 21: Hydrogen shipment price in Japan (JPY/m3)**

Suppliers: Nippon Sanso HD, Air Water, Iwatani

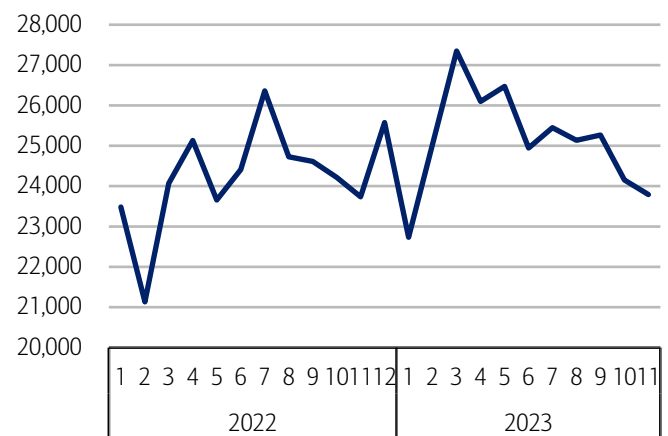


Source: METI

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**Exhibit 22: CO2 shipment price in Japan (JPY/m3)**

Suppliers: Nippon Sanso HD, Air Water, Iwatani

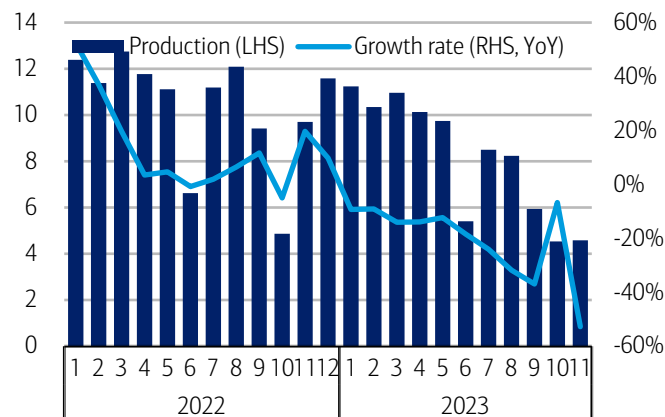


Source: METI

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**Exhibit 23: Chloroprene rubber production in Japan (000ton, YoY)**

Related firms: Denka, Tosoh, Resonac

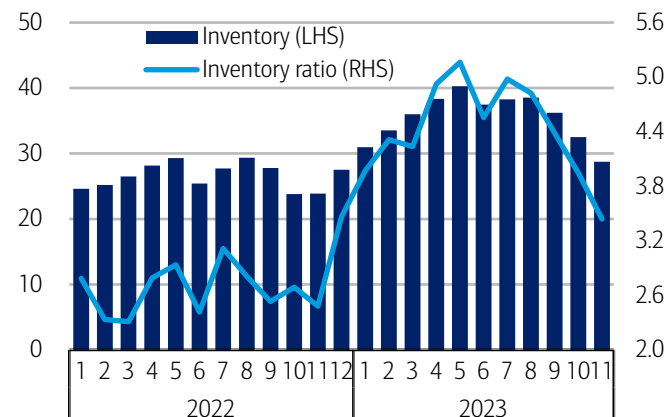


Source: METI

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**Exhibit 24: Chloroprene rubber inventory in Japan (000ton, month)**

Related firms: Denka, Tosoh, Resonac

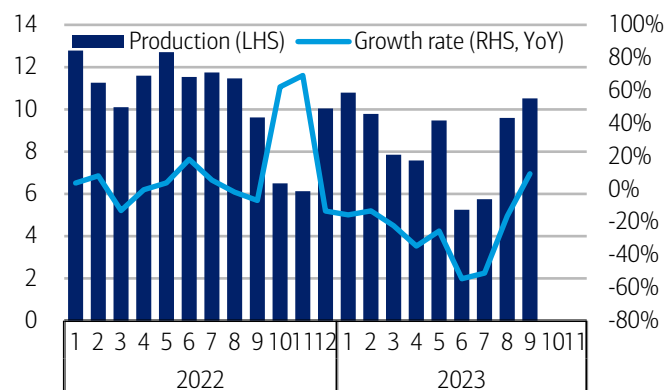


Source: METI

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**Exhibit 25: Polyacetal production in Japan (000ton, YoY)**

Related firms: Daicel, Asahi Kasei

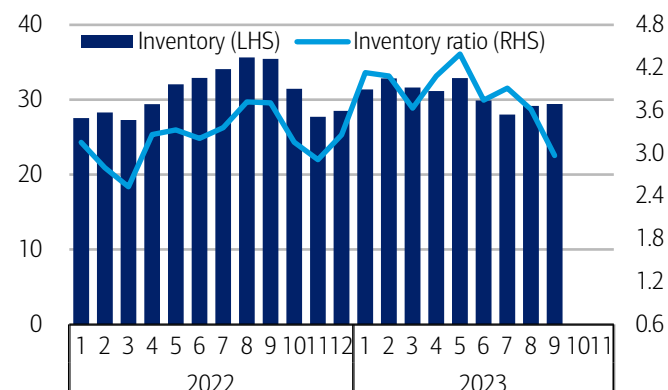


Source: METI

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**Exhibit 26: Polyacetal inventory in Japan (000ton, month)**

Related firms: Daicel, Asahi Kasei

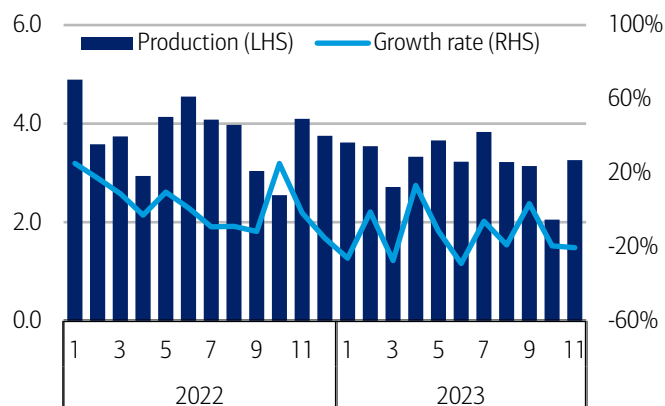


Source: METI

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**Exhibit 27: Polyphenylene sulfide (PPS) resin production in Japan (000ton, YoY)**

Related firms: Kureha, Toray, DIC, Daicel

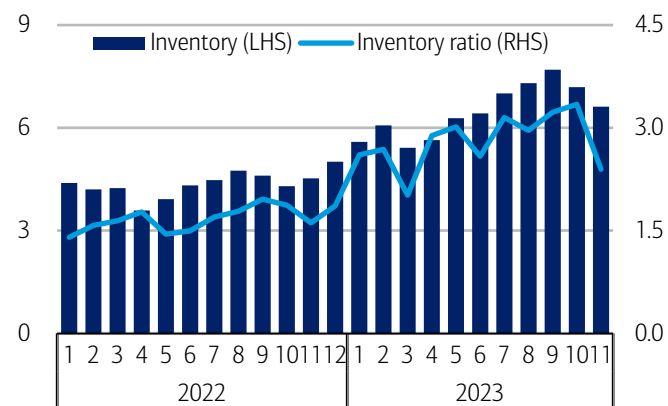


Source: METI

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**Exhibit 28: Polyphenylene sulfide (PPS) resin inventory in Japan (000ton, month)**

Related firms: Kureha, Toray, DIC, Daicel

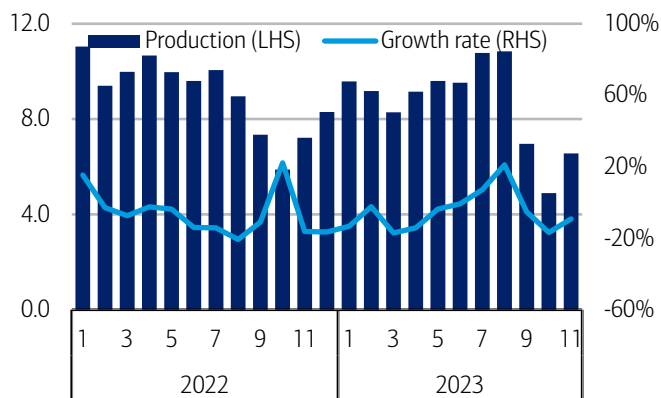


Source: METI

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**Exhibit 29: Poly butylene terephthalate (PBT) resin production in Japan (000ton, YoY)**

Related firms: Daicel, Mitsubishi Chemical Gr

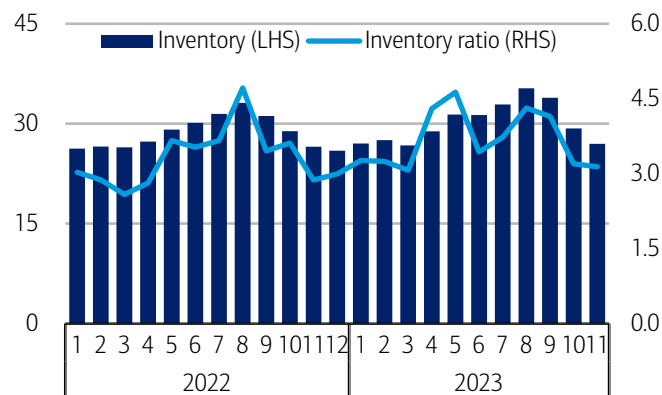


Source: METI

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**Exhibit 30: Poly butylene terephthalate (PBT) resin Inventory in Japan (000ton, month)**

Related firms: Daicel, Mitsubishi Chemical Gr

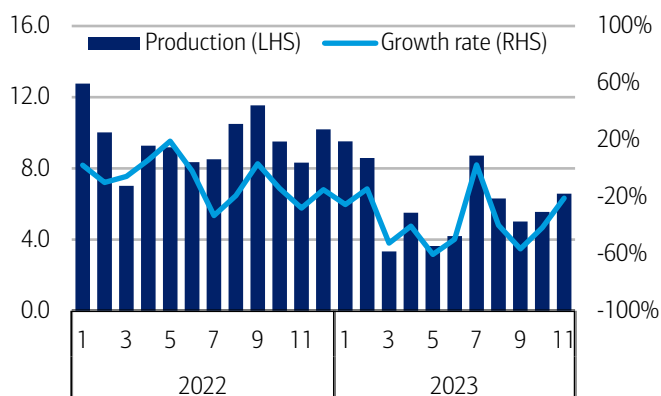


Source: METI

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**Exhibit 31: Epichlorohydrin (ECH) production in Japan (000ton, YoY)**

Related firms: Osaka Soda, AGC

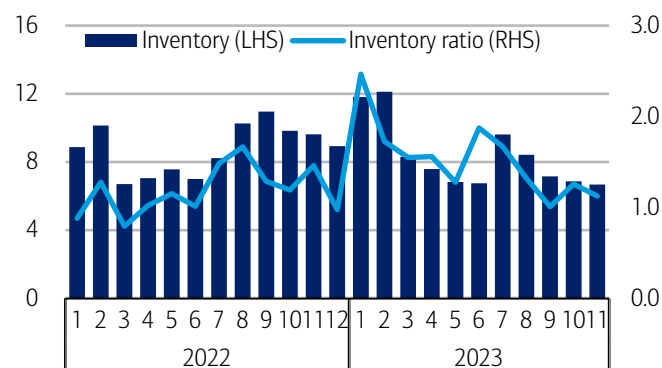


Source: METI

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**Exhibit 32: Epichlorohydrin (ECH) Inventory in Japan (000ton, month)**

Related firms: Osaka Soda, AGC

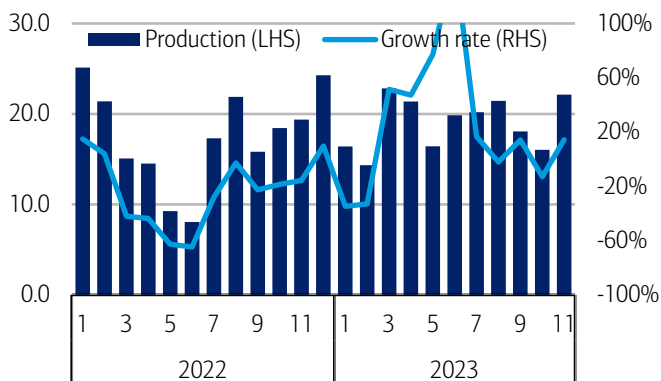


Source: METI

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**Exhibit 33: Methyl ethyl ketone (MEK) production in Japan (000ton, YoY)**

Related firms: Cosmo Energy

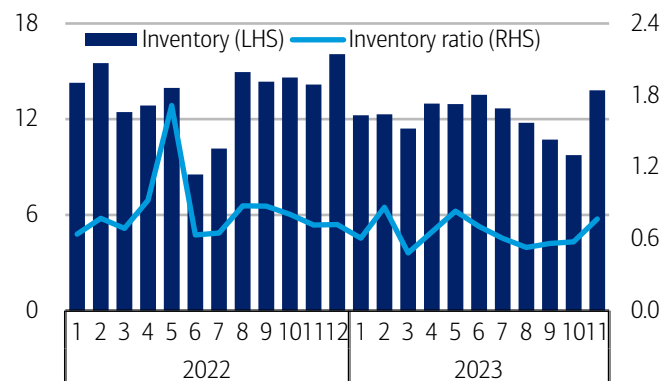


Source: METI

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**Exhibit 34: Methyl ethyl ketone (MEK) Inventory in Japan (000ton, month)**

Related firms: Cosmo Energy

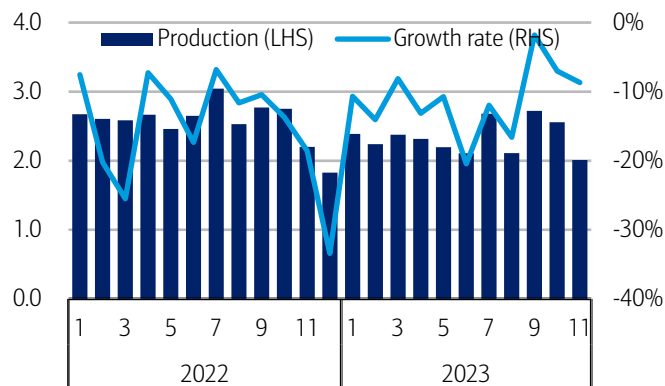


Source: METI

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**Exhibit 35: Activated carbon production in Japan (000ton, YoY)**

Related firms: Kuraray

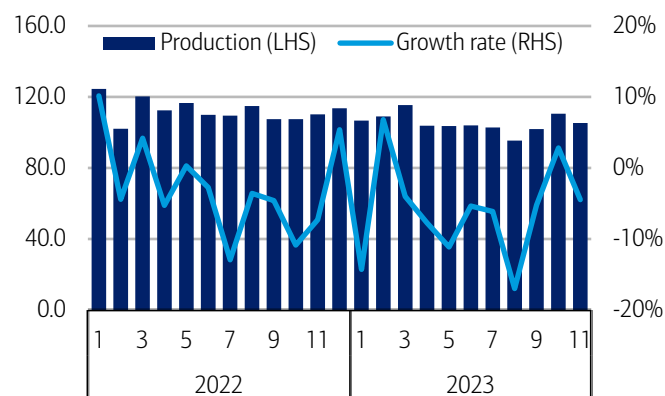


Source: METI

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**Exhibit 37: Cold rolled electrical steel production (000ton, YoY)**

Related firms: Nippon Steel, JFE

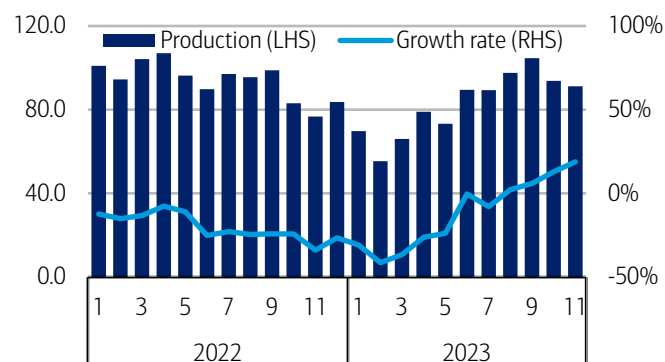


Source: METI

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**Exhibit 39: Ceramic condenser production in Japan (Billion unit)**

Related firms: Toray, Mitsubishi Chemical Gr, Mitsui Mining Smelting, Toho Titanium, etc.

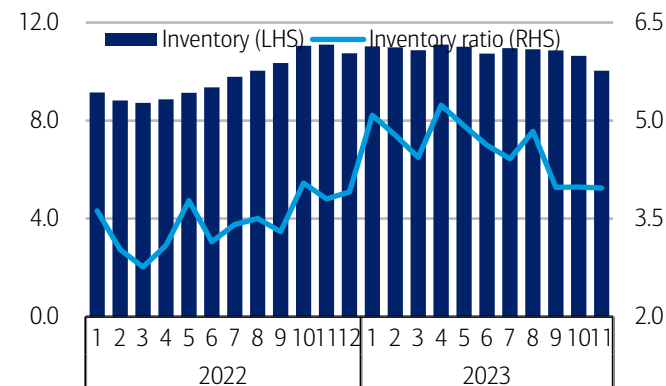


Source: METI

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**Exhibit 36: Activated carbon inventory in Japan (000ton, month)**

Related firms: Kuraray

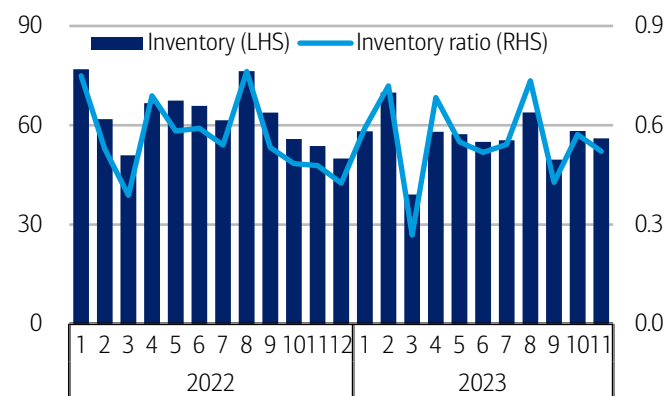


Source: METI

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**Exhibit 38: Cold rolled electrical steel inventory (000ton, month)**

Related firms: Nippon Steel, JFE

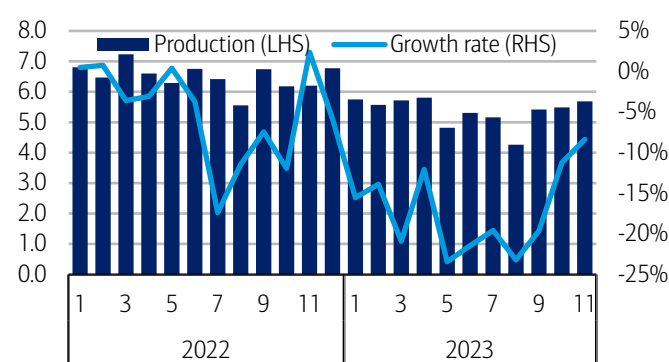


Source: METI

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**Exhibit 40: Spunbond nonwoven fabric production in Japan (000ton, YoY)**

Related firms: Toray, Mitsui Chemicals



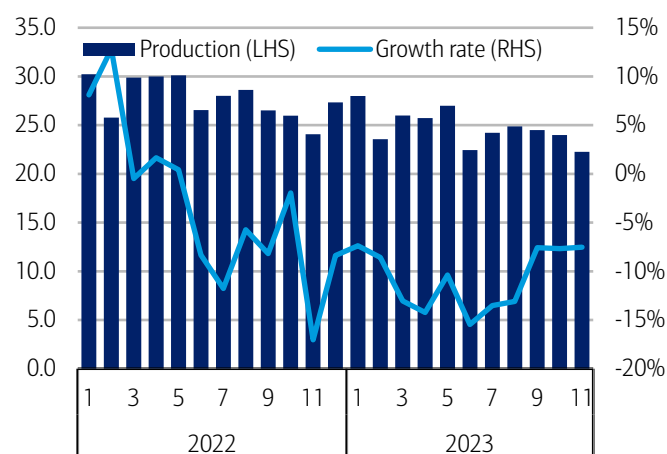
Source: METI

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**Exhibit 41: Chemical fibers (nylon filament, acrylic staple and polyester fibers) production in Japan (000ton, YoY)**

Related firms: Toray

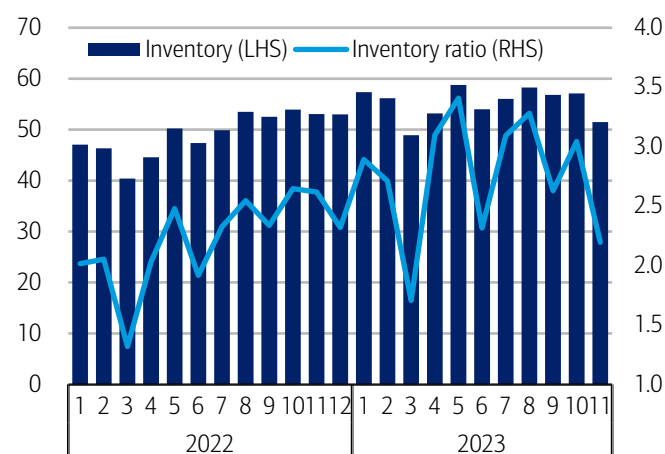


Source: METI

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**Exhibit 42: Chemical fibers (nylon filament, acrylic staple and polyester fibers) inventory in Japan (000ton, month)**

Related firms: Toray



Source: METI

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster <sup>R1</sup>
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

<sup>R1</sup> Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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