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JAPAN CHEMICALS: SPECIALTY

Earnings revisions for 7 electronic materials companies: More positive on Buy-rated Resonac, JX Advanced Metals, Nittobo, while Mitsubishi Gas Chemical downgraded to Neutral

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Following the April-June 2026 earnings results, we revise our forecasts for seven electronic materials companies.

Resonac's Q2 FY26/12 results and the upward revision to its full-year company guidance both exceeded our expectations, confirming the strength of its earnings momentum. Over the medium term, we expect robust profit growth (FY25/12-FY28/12 core operating profit CAGR of +49%) to continue, driven by: (1) its capability to offer end-to-end solutions covering a broad portfolio of AI server-related products, (2) volume growth supported by its ability to secure key raw materials, including increasingly tight glass cloth supply, and (3) the combined benefits of price increases and cost controls. Earnings are likely to continue tracking well above market consensus, and we maintain our **Buy** rating as a core name in the semiconductor back-end materials and HD-related materials space.

JX Advanced Metals is expected to see substantial profit growth driven by both price and volume in InP substrates, a key area of investor interest, with significant price increases and volume expansion anticipated after FY28/3 amid supply shortages. In addition, several advanced materials businesses are entering an expansion phase in both volume and pricing, including sputtering targets, titanium copper for AI server connectors, functional tantalum powder for capacitors, and nickel powder for MLCCs, and sputtering target materials for magnetic materials. As a core beneficiary of optical transceivers and a diversified AI materials play, we maintain a **Buy** rating.

Nittobo's FY27/3 1Q earnings beat and upward revision to full-year guidance exceeded our prior expectations, but we believe the stock corrected following the earnings due to the lack of capacity expansion announcement for T-glass cloth. However, we believe that the company's competitiveness in T-glass remains unchanged. Given the significant medium- to long-term investment requirements, coupled with improving prospects for low-dielectric glass cloth used in PCBs, driven by delays in the mass production of competing quartz cloth and stronger-than-expected demand particularly from NER glass, we have raised our forecasts. In addition to T-glass, we reaffirm our **Buy** rating based on expectations for NER glass capacity expansion and price increases.

Tokyo Ohka Kogyo (TOK) continues to perform particularly well in products such as

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EUV and KrF photoresists. EUV growth is accelerating on the back of the Taiwan foundry's 2nm ramp-up and increasing EUV layer adoption and wafer starts for Korean DRAM, demonstrating robust performance that alleviates concerns over share loss at the 3nm node. Although the company raised its full-year guidance, we believe it remains conservative and leaves further upside potential to earnings. In addition, WHS materials have established a de facto position in temporary bonding/debonding (TB/DB) materials for CoWoS applications, and rapid growth is expected to continue. As the global leader in photoresists with structural growth drivers in both front-end and back-end semiconductor processes, we reiterate our **Buy** rating.

SUMCO is likely to be one of the largest beneficiaries as global demand for 300mm wafers expands beyond GPUs and HBM into CPUs, LPDDR, e-SSDs, and power semiconductors. We expect the industry to be close to full utilization in 2027 and to face considerable tightness in 2028. Meanwhile, industry greenfield investments remain unjustified at current pricing levels and therefore remain on hold, making substantial price increases necessary to generate acceptable returns on investment. As the effects of pricing, volume growth, and lower depreciation overlap heading into FY28/12, when long-term agreement (LTA) renewals are expected to accelerate, we believe earnings could expand significantly and reaffirm our **Buy** rating.

Mitsui Kinzoku may appear weak at first glance due to technical factors and weaker performance in the metals segment during 1Q, but underlying fundamentals remain solid. FaradFlex® guidance has been significantly raised due to strong demand for power noise suppression applications such as switches, while growth expectations for MicroThin™ have also increased following the rapid adoption of a new optical device application. The company's ability to push through another VSP™ price increase within a short period further highlights its pricing power, supported by limited competition in HVLP4 and above. The medium-term growth story for the copper foil business has in fact strengthened. Although we lower earnings forecasts primarily due to the metals business, we view the current share price correction as an attractive buying opportunity and reaffirm our **Buy** rating.

For **Mitsubishi Gas Chemical**, we raise our FY3/27 earnings forecasts to reflect stronger inventory valuation gains in methanol and engineering plastics. However, we lower our earnings forecasts from FY3/28 onward as we now expect BT material volumes and pricing to come in below our previous assumptions. In addition to the reduced earnings outlook for Specialty Functional Materials, a key area of investor focus, we also factor in uncertainty surrounding operating rates at the company's Saudi Arabian methanol facilities and **downgrade the stock to Neutral.**

Exhibit 1: Ratings and 12-month target prices
Priced as of August 28 market close

Company	Ticker	Rating		Price Target		Close	Up/ downside
		Old	New	Old	New		
Nitto Boseki Co	**3110.T**	**Buy**	**Buy**	**4,820**	**4,890**	**3,035**	**61%**
SUMCO	**3436.T**	**Buy**	**Buy**	**6,140**	**5,500**	**3,434**	**60%**
Tokyo Ohka Kogyo	**4186.T**	**Buy**	**Buy**	**13,260**	**13,700**	**8,609**	**59%**
Resonac Holdings	**4004.T**	**Buy**	**Buy**	**23,920**	**25,060**	**16,175**	**55%**
Mitsui Kinzoku Co.	**5706.T**	**Buy**	**Buy**	**62,600**	**43,200**	**29,000**	**49%**
JX Advanced Metals Corp.	**5016.T**	**Buy**	**Buy**	**5,010**	**5,160**	**3,810**	**35%**
Mitsubishi Gas Chemical	4182.T	Buy	Neutral	6,890	4,700	3,910	20%

Source: Goldman Sachs Global Investment Research

Resonac

Resonac reported exceptionally strong 2Q FY26/12 core operating profit of ¥55.1bn (YoY +179%, QoQ +64%), significantly exceeding our bullish estimate of ¥44.0bn. The core operating margin of the Semiconductor and Electronic Materials segment improved from 25.2% in the previous quarter to 28.9%. This strength was driven not only by direct AI server-related materials such as CCL and NCF, but also by broad-based strength across its key back-end semiconductor materials portfolio, as well as very strong performance in HDD media and SiC epitaxial wafers.

The company significantly raised its full-year guidance (core operating profit +¥56.0bn to ¥196.0bn), but we believe there remains further upside potential (our estimat e is ¥202.0bn). In particular, we expect very strong performance in back-end semiconductor materials and HDD media to continue into 2H, and we reaffirm our positive stance on Resonac.

Looking at key products, the company expects CCL sales, mainly for AI server applications, to grow by nearly 4x YoY for the full year. While we estimate that competitor Mitsubishi Gas Chemical's BT materials business will grow by around 20% for the full year, we expect Resonac's overall CCL business to deliver strong revenue growth of nearly 90% YoY, significantly outpacing its competitor. We believe the company's competitive advantage stems from its holistic strength, including its ability to secure critical materials such as T-glass, which remain in tight supply. In addition, approximately 30% price increases are being layered onto growth, and the fact that volumes continue to expand despite the price hikes itself demonstrates Resonac's competitiveness in high-end CCL.

We estimate Resonac covers 60-70% of back-end semiconductor materials and possesses a strong capability to make proposals directly to end customers based on a

deep understanding of what major tech companies ultimately require. Through collaborative platforms such as the Packaging Solution Center and US-JOINT, the company can propose not only individual materials but also evaluate complete package structures. We believe this enables Resonac to fully leverage its role as a solution provider in back-end semiconductor processes. As back-end packaging becomes increasingly complex, including larger CoWoS/CoPoS architectures and higher-layer-count HBM stacks, players that can optimize multiple materials collectively are structurally advantaged, benefiting Resonac's business model.

For NCF, we believe the company has secured wins for HBM4 applications. In addition, we expect TIM material sales to roughly double this year. As GPU power consumption continues to rise, the number high-performance TIM materials used is also likely to increase, supporting sustained growth. Furthermore, we expect strong growth in DFR and solder resist products, driven by larger package substrate sizes and finer circuit line widths. Overall, we view growth prospects for back-end semiconductor materials, including those tied to AI servers, as attractive.

We believe these growth trends will continue beyond FY27/12. In particular for CCL, multiple drivers are expected to coincide, including (1) larger server boards and switch substrates in the Vera Rubin generation and beyond, resulting in greater surface area, (2) increased thickness and layer counts due to higher multilayer complexity, (3) greater unit demand from more GPUs per rack, and (4) pricing benefits. For FY27/12, we expect strong earnings growth, including the full-year realization of the price increases implemented during FY26/12.

In addition, a major driver for FY27/12 will be HDD media. Supported by growing nearline HDD demand from AI data centers, the company announced an additional investment of approximately ¥15bn at the end of July, on top of the investment announced in May, at its Singapore facility. This will increase production capacity by more than 40%, from approximately 160 million disks/year currently to approximately 230 million disks/year by 2030. According to the company, it has already reached agreement with HDD manufacturers regarding price increases equivalent to the investment amount. Price increases have already begun to take effect in 2H FY26/12, and we estimate pricing benefits could exceed 10% in 2H FY26/12, with an additional roughly 10% full-year price effect in FY27/12. As one of the few businesses experiencing simultaneous volume growth and ASP increases, we believe the earnings impact could be substantial. The oligopolistic structure of the external HDD media market should also support pricing power.

We expect contributions not only from back-end and front-end semiconductor materials (including high-purity gases and increased HF capacity), but also from the Device Solutions businesses such as HDD media and SiC. We believe the increasing concentration of profits in semiconductor and electronic materials, together with improving ROIC, should support a market re-rating of the stock. Over the medium to long term, we also see potential for new material opportunities driven by JOINT3 initiatives, including panel-level packaging and organic interposer applications. We therefore reiterate our Buy rating and continue to view Resonac as a core back-end semiconductor materials stock.

While we continue to watch for the medium- to long-term impact of glass-core substrates commercialization, we expect practical adoption to occur no earlier than

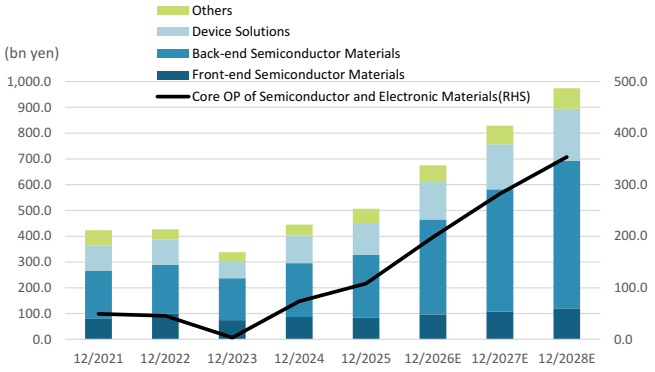
2030, and therefore view the near-term risk as limited. Following Resonac's strong 2Q FY26/12 results, we raise our FY26/12-FY28/12 core operating profit forecasts by +10%/+7%/+10%, respectively, and increase our target price by 5% from ¥23,920 to ¥25,060.

Exhibit 2: Resonac: Earnings summary

(Bn JPY)			GSE	GSE	GSE	CoE							GSE
Sales	12/2024	12/2025	12/2026E	12/2027E	12/2028E	12/2026E	12/25 1Q	12/25 2Q	12/25 3Q	12/25 4Q	12/26 1Q	12/26 2Q	12/26 3Q
Semiconductor and Electronic Materials	445.1	506.3	675.2	828.6	973.5	668.0	111.2	119.5	135.0	140.6	134.7	164.3	177.4
Mobility	215.5	178.4	182.9	187.5	192.2	158.0	46.9	42.8	42.4	46.3	47.3	37.3	47.0
Innovation Enabling Materials	97.0	92.2	97.7	100.6	103.6	100.0	22.0	22.9	23.0	24.3	22.7	27.3	24.0
Chemicals	517.2	474.7	446.5	426.3	426.3	196.0	116.4	111.9	120.4	121.2	92.5	129.3	117.0
Others/Adjustments	116.7	95.5	70.0	72.0	75.0	43.0	24.7	23.8	23.4	28.4	10.6	10.8	18.0
Total	**1,391.5**	**1,347.1**	**1,472.3**	**1,615.0**	**1,770.6**	**1,165.0**	**321.1**	**320.9**	**344.2**	**360.9**	**307.9**	**369.0**	**383.4**
Core Operating Profit													
Semiconductor and Electronic Materials	73.7	108.4	198.4	282.2	353.7	195.0	19.6	22.9	31.5	34.4	34.0	47.5	55.0
Mobility	6.7	4.4	5.1	5.1	5.4	5.0	1.1	1.2	-0.3	2.4	2.9	1.4	0.5
Innovation Enabling Materials	11.3	10.4	11.7	12.3	12.8	12.0	2.1	2.8	3.1	2.3	2.4	3.9	2.5
Chemicals	10.1	-0.8	2.3	4.0	6.0	4.0	-5.4	-4.2	5.5	3.3	-2.1	5.4	0.5
Others/Adjustments	-9.7	-13.3	-15.5	-17.0	-17.5	-20.0	-2.5	-3.0	-1.7	-6.1	-3.6	-2.9	-3.5
Total	**92.1**	**109.1**	**202.0**	**286.6**	**360.4**	**196.0**	**14.8**	**19.8**	**38.2**	**36.3**	**33.6**	**55.1**	**55.0**
OPM													
Semiconductor and Electronic Materials	16.6%	21.4%	29.4%	34.1%	36.3%	29.2%	17.6%	19.2%	23.3%	24.5%	25.2%	28.9%	31.0%
Mobility	3.1%	2.5%	2.8%	2.7%	2.8%	3.2%	2.4%	2.8%	-0.7%	5.1%	6.2%	3.6%	1.1%
Innovation Enabling Materials	11.6%	11.3%	12.0%	12.2%	12.4%	12.0%	9.7%	12.2%	13.7%	9.5%	10.7%	14.2%	10.4%
Chemicals	2.0%	-0.2%	0.5%	0.9%	1.4%	2.0%	-4.7%	-3.7%	4.6%	2.7%	-2.3%	4.1%	0.4%
Others/Adjustments	-8.3%	-13.9%	-22.1%	-23.6%	-23.3%	-46.5%	-10.3%	-12.6%	-7.1%	-21.3%	-33.9%	-27.2%	-19.4%
Total	**6.6%**	**8.1%**	**13.7%**	**17.7%**	**20.4%**	**16.8%**	**4.6%**	**6.2%**	**11.1%**	**10.1%**	**10.9%**	**14.9%**	**14.3%**

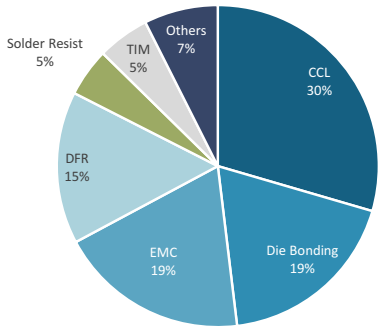
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 3: Resonac: Semiconductor and electronic materials business earnings outlook



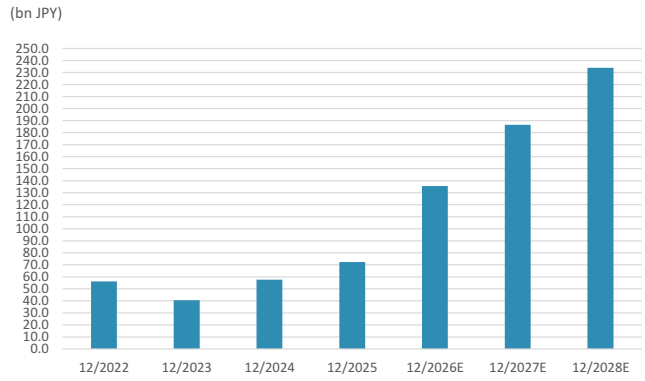
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 4: Sales breakdown of major back-end semiconductor materials (FY12/25)



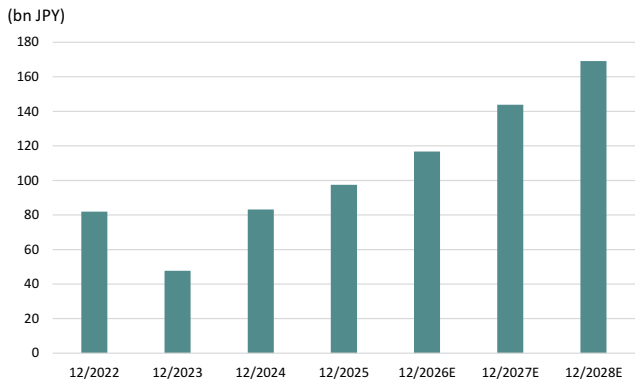
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 5: CCL sales outlook



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 6: HD media sales outlook



Source: Company data, Goldman Sachs Global Investment Research

JX Advanced Metals

For **InP substrates**, the area of greatest investor interest, we expect significant price increases to be reflected particularly in FY28/3. The InP substrate market is currently experiencing a global supply shortage, and we believe the pricing environment is favorable. We would also highlight our view that substantial profit growth should continue from FY29/3 onward, supported by both capacity expansion and additional price revisions. In particular, the company expects production capacity in FY29/3 to expand by 4-5x versus FY26/3 through the transition to larger wafer sizes such as 4-inch and 6-inch substrates, which we believe will drive meaningful volume growth. Larger wafer diameters not only increase capacity but also improve customers' back-end manufacturing efficiency by increasing the number of chips obtained per wafer. As such, we believe this transition is important not only from a capacity expansion perspective but also for customer retention and market share maintenance, and we will closely monitor yield and productivity trends. Furthermore, the company is targeting a 7-10x production increase by FY30/3, which should support significant shipment growth primarily to U.S. optical device manufacturers. In addition to EML lasers, we expect applications for CW lasers used in silicon photonics and CPO to contribute to earnings. We would highlight the company's position as a core beneficiary within the optical transceiver ecosystem, with exposure to both the adoption of 800G/1.6T optical transceivers and the ramp-up of CPO.

In addition, semiconductor sputtering targets, currently the company's largest earnings driver, are experiencing stronger-than-expected volume growth, particularly for leading-edge logic and HBM applications. Regarding FY27/3 pricing, we believe price increases will at least be applied to shipment volumes that exceed annual contracted quantities. For FY28/3 and beyond, we assume gradual price increases driven by tight supply-demand conditions. On the volume side, the industry is entering a phase of structural growth in deposition layers and target consumption, driven by DRAM scaling, higher HBM stack counts, and increasing layer counts in 3D NAND. The new Hitachinaka plant, scheduled to begin operations in 2H FY28/3, supports our medium-term volume growth outlook. In addition, for 3D NAND, we expect the company's value-added content to increase as leading-edge word lines transition from tungsten to molybdenum.

For **tantalum and niobium**, earnings recovery has been slower than expected due partly to foreign exchange impacts. However, going forward, we expect both price increases and significant volume growth. Even in 1Q, sales volume of tantalum powder for capacitor applications increased 89% YoY. We expect low-ESR polymer tantalum capacitors, used in AI server GPU power circuits, to be a key growth driver, particularly among tantalum capacitor manufacturers in Taiwan and Japan. We are therefore highly positive on the growth outlook for the tantalum and niobium business. As GPUs require higher current and stricter power quality standards, the increasing number of capacitors per AI server should continue to drive volume growth.

For **titanium copper**, shipment volumes in FY27/3 1Q increased 42% YoY, led by server-related demand, which grew 95% YoY. In high-speed transmission connectors for AI servers, titanium copper is increasingly replacing the previously dominant Corson alloy due to its suitability for finer pitches and thinner form factors. As a result, we expect growth to continue at a rate exceeding overall AI server market growth, including connector applications, with a significant positive mix shift.

Furthermore, for **nickel powder used in MLCCs** (supplied by Toho Titanium, which has become a wholly owned subsidiary), we estimate FY27/3 revenue growth of nearly 40%, driven by AI server demand. AI servers are estimated to contain more than ten times as many MLCCs as conventional servers. Downstream, MLCC pricing is rising and lead times are lengthening, reflecting tightening supply-demand conditions that are increasingly extending upstream into the materials market.

We believe many of the company's key materials businesses are entering a clear phase of expansionary growth, including InP substrates, semiconductor sputtering targets, high-purity powders for tantalum capacitors, titanium copper, nickel powder for MLCCs, and targets for magnetic materials. The increasing contribution from these focus businesses should support a valuation re-rating. We raise our operating profit forecasts for FY27/3-FY29/3 by 4% each year and increase our target price by 3%, from ¥5,010 to ¥5,160.

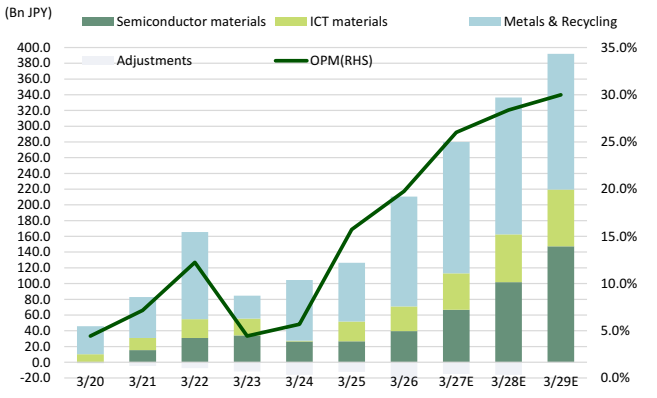


Exhibit 7: JX Advanced Metals: Earnings summary

(bn yen ,%)	3/24	3/25	3/26	GSE 3/27E	GSE 3/28E	GSE 3/29E	CoE 3/27E	3/26 1Q	3/26 2Q	3/26 3Q	3/26 4Q	3/27 1Q	GSE 3/27 2Q
Sales	**1,512.3**	**714.9**	**884.6**	**1,018.4**	**1,129.5**	**1,250.0**	**1,025.0**	**191.3**	**205.1**	**218.1**	**270.1**	**260.6**	**253.0**
YoY	-8%	-53%	24%	15%	11%	11%	16%	12%	23%	21%	36%	36%	23%
QoQ								-3%	7%	6%	24%	-4%	-3%
Semiconductor materials	**122.6**	**147.4**	**176.6**	**227.5**	**290.4**	**368.4**	**230.0**	**38.7**	**44.3**	**47.1**	**46.5**	**52.1**	**55.3**
YoY	-17%	20%	20%	29%	28%	27%	30%	1%	26%	27%	26%	35%	25%
ICT materials	**186.3**	**260.9**	**314.6**	**360.4**	**395.8**	**425.2**	**355.0**	**77.2**	**76.5**	**79.2**	**81.7**	**93.1**	**90.0**
YoY	-16%	40%	21%	15%	10%	7%	13%	51%	34%	5%	6%	21%	18%
Metals & Recycling	**1,201.1**	**304.1**	**390.9**	**428.0**	**440.8**	**453.9**	**470.0**	**74.6**	**83.9**	**91.3**	**141.1**	**116.1**	**107.0**
YoY	-8%	-75%	29%	9%	3%	3%	20%	-7%	15%	35%	70%	56%	27%
Adjustments	**2.4**	**2.6**	**2.6**	**2.5**	**2.5**	**2.5**	**-30.0**	**-1.3**	**-3.2**	**-4.1**	**-28.6**	**-2.9**	**-4.0**
YoY	-106%	8%	0%	-3%	0%	0%	-1269%		-974%	357%	341%	128%	24%
Operating Profit	**86.2**	**112.5**	**175.0**	**264.9**	**320.6**	**374.9**	**232.0**	**29.6**	**40.5**	**54.8**	**50.2**	**81.4**	**66.7**
YoY	18%	31%	56%	51%	21%	17%	33%	22%	-8%	203%	91%	176%	65%
QoQ								12%	37%	35%	-8%	62%	-18%
OPM	5.7%	15.7%	19.8%	26.0%	28.4%	30.0%	22.6%	15.5%	19.7%	25.1%	18.6%	31.3%	26.4%
Semiconductor materials	**26.4**	**26.7**	**39.5**	**66.8**	**101.8**	**147.4**	**61.0**	**8.5**	**10.5**	**10.9**	**9.6**	**14.4**	**16.6**
YoY	-23%	1%	48%	69%	52%	45%	54%	6%	36%	145%	47%	69%	58%
OPM	22%	18%	22%	29%	35%	40%	27%	22%	24%	23%	21%	28%	30%
ICT materials	**0.9**	**25.1**	**31.5**	**46.2**	**60.6**	**72.1**	**39.0**	**7.7**	**7.7**	**8.4**	**7.7**	**13.1**	**12.1**
YoY	-96%	2589%	25%	47%	31%	19%	24%	69%	-24%	35%	83%	71%	57%
OPM	1%	10%	10%	13%	15%	17%	11%	10%	10%	11%	9%	14%	13%
Metals & Recycling	**77.2**	**74.5**	**139.5**	**166.9**	**174.2**	**172.4**	**147.0**	**14.6**	**25.8**	**39.7**	**59.3**	**56.8**	**42.0**
YoY	166%	-4%	87%	20%	4%	-1%	5%	-13%	0%	396%	150%	288%	63%
OPM	6%	25%	36%	39%	40%	38%	31%	20%	31%	44%	42%	49%	39%
Adjustments	**-18.4**	**-13.9**	**-35.5**	**-15.0**	**-16.0**	**-17.0**	**-15.0**	**-1.3**	**-3.5**	**-4.3**	**-26.4**	**-2.8**	**-4.0**

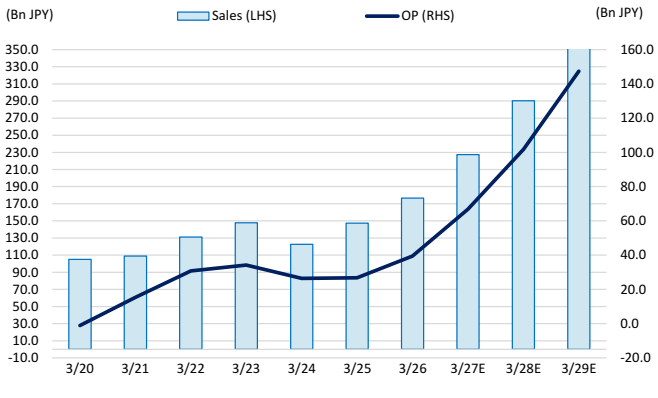
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 8: JX Advanced Metals: Operating profit trends by segment



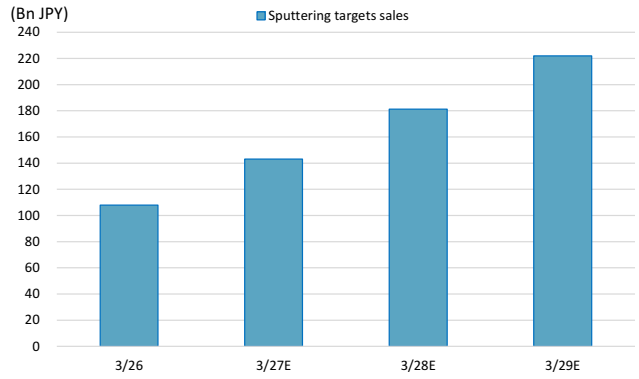
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 9: JX Advanced Metals: Semiconductor business sales and operating profit trends



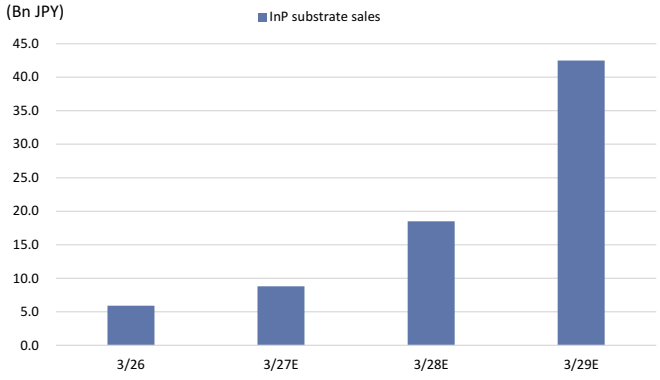
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 10: Sputtering target sales
CAGR+27% between FY26/3-29/3



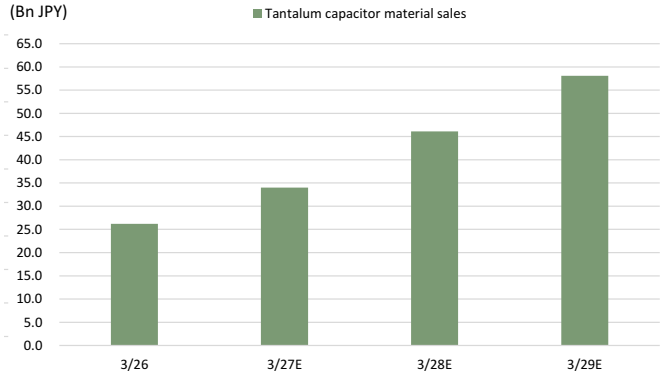
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 11: InP substrate sales
CAGR+93% between FY26/3-29/3



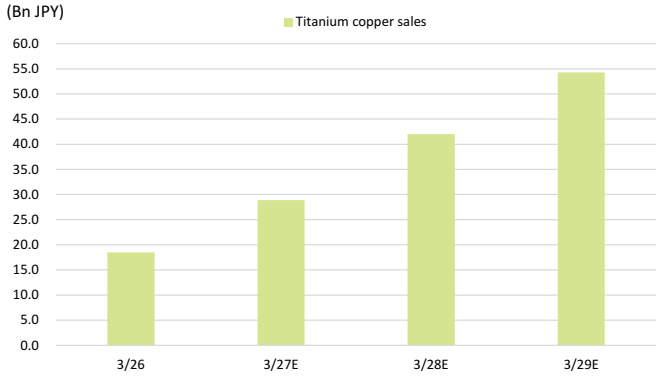
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 12: Tantalum capacitor materials sales
CAGR+30% between FY26/3-29/3



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 13: Titanium copper sales
CAGR+43% between FY26/3-29/3



Source: Company data, Goldman Sachs Global Investment Research

SUMCO

We reaffirm our constructive stance on **SUMCO**, focusing on the company's medium- to long-term earnings rebound and expansion potential. Although earnings remain in the red at present due to depreciation burdens associated with the new Imari plant and other investments, we view the company as being in the early stages of an earnings trough, with supply-demand balance, pricing, and costs all approaching an inflection point in FY27/12.

The key backdrop is the supply-demand balance for 300mm wafers. We estimate global utilization rates (excluding China) will reach approximately 95% in 2026, while 2027 could see the industry operating at nearly full utilization or even facing a slight supply shortfall. For FY28/12, based on currently announced supply plans, we expect supply-demand conditions to tighten considerably. Given that a new wafer fab requires at least two and a half years from groundbreaking to volume production and qualification, even if investment decisions were made today, additional capacity would not arrive in time to affect FY28/12 supply-demand conditions. As a result, tightening conditions appear largely inevitable. Recently, demand related to AI servers has risen to

approximately 30% of total 300mm wafer demand. This reflects not only GPUs/ASICs and HBM, but also expanding CPU demand driven by the growth of agentic AI, increased LPDDR demand associated with CPUs, growth in storage-related e-SSDs, and broader silicon wafer demand across power semiconductors, PMICs, and BBUs as AI racks migrate toward 800VDC architectures and increasingly complex power delivery systems. In other words, AI demand is expanding beyond leading-edge logic and HBM into memory, storage, and power applications. We emphasize that this broadening demand base increases confidence in the growth outlook for SUMCO's products.

At the same time, major wafer manufacturers, including Japanese suppliers and global peers, continue to reiterate that even brownfield investments are uneconomical at current pricing levels. SUMCO President Jiro Ryuta has also indicated that 5% or 10% price increases would be far from sufficient to offset rising costs and that much more substantial price increases would be required. In practice, the company continues to postpone its Yoshinogari new fab project (with related subsidies reduced from ¥75 billion to ¥19.3 billion) and has not indicated plans to restart greenfield development. In particular, regarding investments including greenfield projects, the common stance across the industry is that substantial price increases would be required even if projects remain completely on hold or under consideration. Industry views on this point appear increasingly aligned.

Spot pricing has also begun to move upward across all wafer diameters during 2026, and as LTA negotiations become more active, we believe supplier-favorable conditions are likely to persist for the foreseeable future. While customer profitability, particularly among memory manufacturers, has improved significantly, wafer suppliers, with the exception of industry leader Shin-Etsu Chemical, continue to generate weak earnings. SUMCO remains loss-making on an interim basis, while overseas peers also continue to operate at low profitability levels. We view the current value allocation within the semiconductor supply chain as highly unbalanced, with downstream participants generating record profits while upstream suppliers of critical materials remain loss-making. Given that stable wafer supply is increasingly becoming a prerequisite for customers' capacity expansion plans, we believe the industry may use this opportunity to implement substantial price increases and secure contract structures that support long-term earnings stability.

Regarding SUMCO's 300mm wafer shipments, volumes expanded sharply by nearly 15% QoQ in Q2, and we estimate a further increase of approximately 5% in Q3. As a result, we forecast FY26/12 shipment growth of roughly 14% YoY, implying a second consecutive year of more than 10% growth following FY25/12. As inventories at logic and memory customers continue to decline, we believe the company is receiving monthly requests for additional shipments and that further upside to shipment volumes remains possible.

We also expect utilization rates for SUMCO's 300mm wafer operations to approach full utilization on existing production lines in the second half of FY26/12. In addition, incremental capacity additions within the new Imari facility that began ramping in the second half of FY25/12, together with yield and productivity improvement initiatives, should enable shipment growth exceeding 10% in FY27/12 as well. However, as utilization rates continue to rise, we expect supply tightness to become even more pronounced.

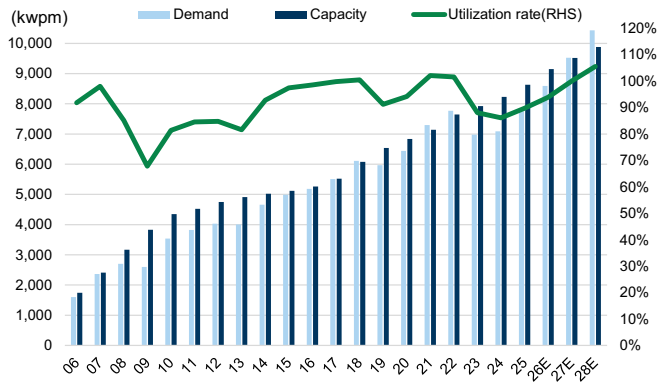
We expect spot price increases and selected LTA price revisions to begin contributing from the second half of FY27/12 through FY28/12, with the majority of the impact occurring in FY28/12. For FY28/12, we estimate that average 300mm wafer LTA prices could increase by close to 10%. Beyond FY29/12, we believe meaningful price increases may continue for multiple years, reflecting the need to restore pricing to levels that justify greenfield investments. On the cost side, depreciation expense is expected to peak in FY26/12 and decline thereafter. We believe FY28/12 earnings could expand significantly as higher volumes, an improved product mix driven by growing demand for AI-related logic and HBM applications, and higher pricing coincide with lower depreciation expenses. Compared with our previous forecasts, we have made no material changes to our assumptions for 300mm and 200mm wafer shipment volumes or pricing. However, after incorporating the impact of the deconsolidation of FORMOSA SUMCO (with the P&L impact beginning in Oct-Dec FY12/26), as well as higher costs associated with broader inflationary pressures, we reduce our operating profit forecasts for FY12/27 and FY12/28 by 18% and 19%, respectively. While we also lower our net profit forecasts, the revisions are more modest at 6% and 10% for FY12/27 and FY12/28, respectively, compared with the changes at the operating profit level. As a result, we lower our target price by 9%, from ¥6,140 to ¥5,500 and maintain our Buy rating.

Exhibit 14: SUMCO: Earnings summary

(Billions of yen, %)	2024/12	2025/12	GSE 2026/12	GSE 2027/12	GSE 2028/12	25/12 1Q	25/12 2Q	25/12 3Q	25/12 4Q	26/12 1Q	26/12 2Q	GSE 26/12 3Q	CoE 26/12 3Q
Sales	**396.6**	**409.7**	**446.4**	**470.0**	**571.7**	**102.5**	**102.9**	**99.1**	**105.2**	**101.4**	**113.6**	**121.4**	**118.0**
YoY	-7%	3%	9%	5%	22%	10%	-2%	1%	5%	-1%	10%	23%	19%
QoQ						3%	0%	-4%	6%	-4%	12%	7%	4%
Operating Profit	**36.9**	**1.3**	**-3.3**	**57.1**	**151.6**	**6.0**	**1.5**	**-1.6**	**-4.5**	**-5.3**	**-1.1**	**0.2**	**0.0**
YoY	-49%	-96%	-351%	-2146%	169%	-31%	-88%	-117%	-165%	-188%	-174%	-113%	-100%
QoQ						-14%	-76%	-208%	185%	16%	-79%	-118%	-100%
OPM	9.3%	0.3%	-0.7%	12.1%	26.5%	5.8%	1.4%	-1.6%	-4.3%	-5.2%	-1.0%	0.2%	0.0%

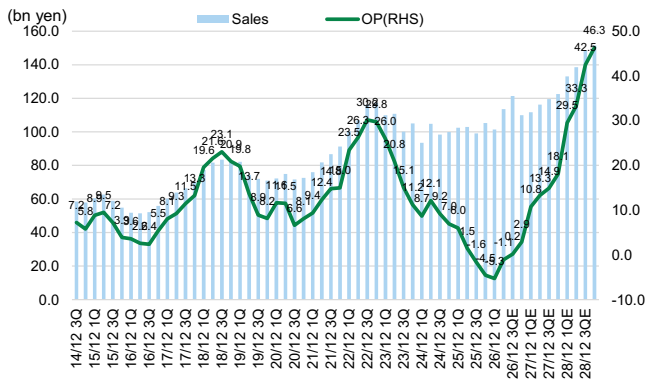
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 15: 300mm wafer supply demand outlook (GSE)



Source: Goldman Sachs Global Investment Research

Exhibit 16: SUMCO: Quarterly sales and operating profit



Source: Company data, Goldman Sachs Global Investment Research

Nitto Boseki (Nittobo)

Nittobo's FY27/3 1Q operating profit exceeded both our estimate and the Bloomberg consensus, even excluding a modest earnings uplift from inventory valuation gains.

Relative to our forecast, we believe this outperformance was driven particularly by stronger-than-expected sales of low-dielectric glass cloth products, including NE and NER glass cloth used in AI server PCBs. In addition, company-wide price increase initiatives and product mix improvements associated with a larger proportion of high-end products likely also contributed meaningfully. For FY27/3, the company raised its full-year operating profit guidance from ¥26.0bn to ¥30.0bn, but we raise our forecast further to ¥32.6bn (from ¥28.7bn previously). We also revise upward our forecasts from FY28/3 onward to reflect the strong performance of low-dielectric glass products such as NE and NER glass cloth, and now expect FY28/3 operating profit to grow 41% YoY.

Despite the strong 1Q results, the share price has corrected following the earnings announcement. We believe this was largely due to the absence of a capacity expansion plan announcement for T-glass, while a semiconductor packaging manufacturer continue to qualify multiple glass cloth suppliers. Management continues to emphasize T-glass's competitive advantages and continued strength in customer demand, including from major tech companies that are the ultimate end customers in AI servers. At the same time, the sheer scale of demand appears to be making investment planning increasingly challenging. In addition, demand expectations for NER glass, another core growth pillar, also continue to trend upward, increasing the need for further capacity additions. As a result, there appear to be limits to a conversion strategy that reallocates all existing production lines toward T-glass. We believe tight supply-demand conditions across multiple key products are making the optimal allocation of management resources increasingly complex. In particular, for ABF substrates, we believe the use of premium glass cloth is likely to remain essential, given the need to ensure reliability and dimensional stability for high-value components such as GPUs and HBM mounted above the core layers in AI servers. We believe the company is currently in the final stages of feasibility studies for additional T-glass and low-dielectric glass capacity, and therefore view the announcement of expansion plans as largely a matter of time.

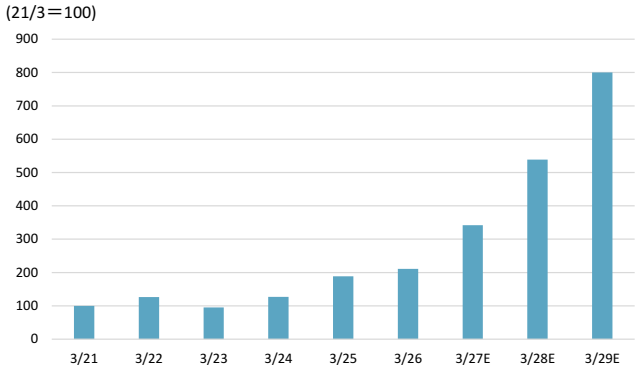
Demand for low-dielectric glass cloth also appears set to remain strong. In addition to continued stable demand for NE glass from major U.S. big tech players, NER, the company's second-generation low-dielectric glass product, is seeing strong customer interest, particularly for switch applications, partly due to delays in the commercialization of competing quartz cloth products. Furthermore, increasing unit demand associated with the transition from 800G to 1.6T networking products is expected to provide additional support, increasingly making further capacity expansion a priority. We forecast a revenue CAGR of 29% for low-dielectric glass products between FY26/3 and FY29/3. In particular, we expect NER glass cloth, which carries a high incremental margin, to achieve a CAGR of 70% over the same period, making it an increasingly important driver of company-wide earnings growth. We raise our operating profit forecasts for FY27/3-FY29/3 by 14% / 23% / 20%, respectively, and lower the sector-relative premium from 60% to 40% (on mark-to-market). As a result, we increase our target price by 2%, from ¥4,820 to ¥4,890.

Exhibit 17: Nitto Boseki: Earnings summary

(Bn JPY)				GSE	GSE	GSE	CoE						GSE
Sales	3/24	3/25	3/26	3/27E	3/28E	3/29E	3/27E	3/26 1Q	3/26 2Q	3/26 3Q	3/26 4Q	3/27 1Q	3/27 2Q
ElectronicMaterials Business	29.9	40.9	49.3	68.3	94.0	125.9	77.8	11.3	12.2	12.7	13.2	14.6	16.1
Medical Business	12.8	13.6	13.7	14.5	15.2	16.0	15.9	3.5	3.2	3.6	3.4	3.8	3.6
Composite Materials Business	12.7	13.5	13.4	15.8	16.0	16.0	15.7	3.3	3.6	3.2	3.4	3.8	3.8
Materials Solution Business	9.1	9.4	9.5	10.1	10.1	10.1	10.1	2.3	2.2	2.5	2.5	2.6	2.4
Insulation Materials Business	14.8	15.3	15.1	17.5	17.2	17.2	17.7	3.5	3.8	4.1	3.7	4.4	4.4
Other Businesses	14.0	16.3	17.1	17.8	18.0	18.0	20.3	4.3	4.3	4.1	4.4	4.8	4.4
Total	**93.3**	**109.0**	**118.1**	**144.0**	**170.5**	**203.2**	**141.0**	**28.2**	**29.2**	**30.2**	**30.5**	**34.0**	**34.7**
Operating Profit													
ElectronicMaterials Business	5.4	13.9	19.4	30.7	44.2	62.6	28.0	4.1	4.8	4.8	5.6	7.0	7.4
Medical Business	2.4	2.4	2.4	2.8	2.8	2.8	2.8	0.4	0.7	0.8	0.6	0.7	0.7
Composite Materials Business	-0.7	-0.9	-0.1	-0.3	-0.4	-0.4	-0.3	-0.0	-0.1	-0.0	0.1	0.0	-0.2
Materials Solution Business	0.8	0.8	0.6	0.4	0.5	0.6	0.4	0.1	0.1	0.2	0.2	0.2	0.1
Insulation Materials Business	0.9	0.7	0.2	1.0	1.0	1.0	1.0	-0.1	-0.2	0.3	0.1	0.3	0.2
Other Businesses	0.4	0.4	0.5	0.4	0.4	0.4	0.6	0.1	0.2	0.2	0.1	0.2	0.2
Adjustment	-0.8	-0.9	-2.2	-2.4	-2.6	-3.1	-2.5	-0.4	-0.4	-0.7	-0.7	-0.5	-0.5
Total	**8.4**	**16.4**	**20.8**	**32.6**	**45.9**	**63.9**	**30.0**	**4.3**	**5.2**	**5.5**	**5.9**	**7.9**	**7.9**
OPM													
ElectronicMaterials Business	18.0%	33.9%	39.4%	44.9%	47.0%	49.7%	36.0%	36.7%	39.9%	38.2%	42.2%	48.2%	46.0%
Medical Business	18.7%	17.5%	17.7%	19.3%	18.4%	17.5%	17.6%	11.9%	21.0%	21.3%	16.9%	18.7%	19.4%
Composite Materials Business	-5.8%	-6.7%	-0.9%	-1.9%	-2.5%	-2.5%	-1.9%	-0.5%	-3.4%	-1.5%	1.9%	0.0%	-5.3%
Materials Solution Business	9.0%	8.9%	6.2%	4.0%	5.0%	5.9%	4.0%	4.8%	5.1%	6.4%	8.1%	8.5%	4.2%
Insulation Materials Business	6.2%	4.5%	1.3%	5.7%	5.8%	5.8%	5.6%	-1.4%	-4.2%	7.3%	2.9%	5.7%	4.5%
Total	**9.0%**	**15.1%**	**17.6%**	**22.6%**	**26.9%**	**31.4%**	**21.3%**	**15.2%**	**17.7%**	**18.1%**	**19.3%**	**23.4%**	**22.8%**

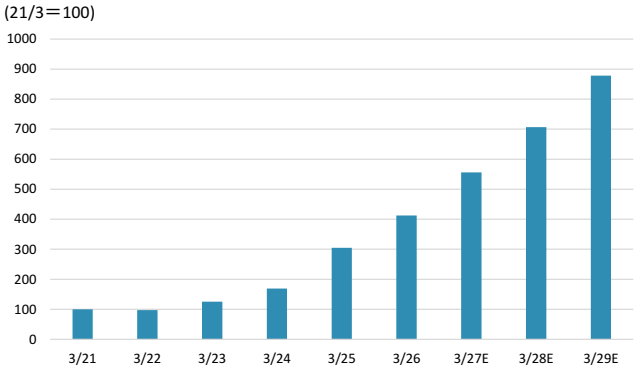
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 18: Nitto Boseki: Low-CTE glass sales (indexed)



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 19: Nitto Boseki: Low-DK glass sales (indexed)



Source: Company data, Goldman Sachs Global Investment Research

Mitsui Kinzoku

For **Mitsui Kinzoku**, we believe the post-earnings share price correction following the FY27/3 1Q results was driven by several factors, including a QoQ decline in operating profit in the Engineered Materials segment, a reduction in the company's second-half outlook for VSP™, and downward revisions to operating profit in the Metals business. In particular, investor inquiries immediately following the results suggested a widespread perception that operating profit in the copper foil business had declined QoQ, raising concerns about the earnings growth potential of the copper foil business. However, based on subsequent discussions with the company, we believe the underlying QoQ decline in operating profit excluding inventory-related effects and other factors (approximately -¥3.9 billion) was driven primarily by technical factors outside the

copper foil business. We view it as reassuring that the copper foil business itself actually achieved modest QoQ profit growth on an underlying basis.

Regarding the company's full-year ordinary profit forecast, earnings growth in the copper foil business was revised upward from a YoY increase of ¥5.0 billion to a YoY increase of ¥11.5 billion. Within this, the most notable development was the upside in **FaradFlex®** earnings (approximately +¥3.0 billion). We view it positively that, in addition to MicroThin™ and VSP™, FaradFlex® has clearly emerged as a third key earnings pillar driven mainly by AI server demand, particularly when considered alongside the capacity expansion plans announced with the earnings release.

The biggest positive from this earnings announcement was the significant upward revision to FaradFlex®. The company raised its operating profit outlook for FaradFlex® by approximately ¥3.0 billion relative to its initial FY27/3 guidance, implying a profit increase of ¥5.0-6.0 billion versus FY26/3. Similar to our previous view, we believe only a minority of investors expected FaradFlex® to become a clear earnings driver, at least in the near term. The substantial capacity expansion announced alongside the earnings release, increasing monthly production capacity by approximately 4.7x from FY26/3 to FY31/3 to 355,000 sqm/month, combined with a relatively modest investment amount of ¥5.0 billion, is highly positive from an operating profit growth perspective. We believe FaradFlex® is primarily used for decoupling applications in high-layer-count AI server, network switch, and router PCBs, where a capacitor layer is formed directly beneath the IC to eliminate power noise. Demand is expected to continue growing strongly, supported by the transition from 800G to 1.6T switches, rising power quality requirements associated with higher GPU power consumption, and increasing needs to reduce component counts and miniaturize boards. Since FaradFlex® is embedded within the substrate itself, it is difficult to replace once adopted, and demand tends to accumulate over the life of a design generation, contributing to earnings stability.

For **MicroThin™**, the largest driver of the copper foil business (which we estimate accounted for more than 70% of copper foil operating profit in FY26/3), growth drivers are expanding beyond non-smartphone memory applications, previously the key source of growth, including LPDDR used alongside AI server CPUs and e-SSDs. Demand from optical devices is now ramping rapidly. We estimate that optical device applications will account for nearly 20% of package substrate-related MicroThin™ shipment volumes in FY27/3, up sharply from approximately 5% in FY26/3. In optical devices, mSAP adoption is already increasing for high-end 800G products, while mSAP is expected to become the standard manufacturing process for 1.6T products. Given the company's dominant global share in carrier-supported ultra-thin copper foil, we expect MicroThin™ to remain the primary material used. Regarding CPO, we expect it to coexist with external (pluggable) optical transceivers for the foreseeable future. Even if CPO adoption advances, the integration of optical engines within the same package as switch ASICs is likely to drive larger package substrates and finer circuit patterns, which should further increase demand for carrier-supported ultra-thin copper foil used in mSAP applications. As a result, we view technology transition risk as limited. Combined with expanding demand from DRAM and NAND applications discussed earlier, we forecast a CAGR of +21% for MicroThin™ shipment volumes from FY26/3 to FY29/3. The company has announced a substantial expansion of production capacity from 4.9 million sqm/month in FY26/3 to 8.0 million sqm/month in FY31/3, representing roughly 60% growth, supported by ¥30 billion of investment in Ageo and Malaysia. Even so, we expect

supply-demand conditions to remain tight, and given the company's dominant market position, we believe pricing revisions will continue to be implemented.

For **VSP™**, although certification delays have occurred at Mitsui Kinzoku's Malaysian facility, according to the company there are no issues with product quality or ramp-up execution, with the delays instead attributable to customer inventory levels and certification schedules. Management explained that if certifications proceed more quickly than expected, there could in fact be upside potential. In addition, regarding the super high-end HVLP4-and-above segment, the company indicated that new entrants from Taiwan, Korea, and China have not yet achieved mass production. Management also expressed a constructive stance toward further price increases, supported by tightening supply-demand conditions in HVLP4-and-above products as demand for high-end servers expands. The company only recently announced a price increase in the second half of FY26/3, and if another increase is implemented within such a short period, it would likely dispel the market view that VSP™ pricing remains difficult. In PCB copper foil, demand drivers include higher layer counts in server boards associated with NVIDIA's platform transition from Blackwell to Vera Rubin, broader adoption of high-end CCL grades such as M8 and M9, and migration from 800G to 1.6T switches. These trends are expected to increase consumption of high-end grades in both area and specification terms. Even after the planned capacity expansion to approximately 1,400 tons/month by FY31/3, roughly double current levels, we expect supply-demand conditions in the super high-end segment to remain extremely tight due to industry bottlenecks such as surface treatment equipment. Going forward, we expect continued mix improvement driven by the migration from standard (non-VSP) copper foil to VSP, as well as an ongoing shift toward higher-end VSP grades.

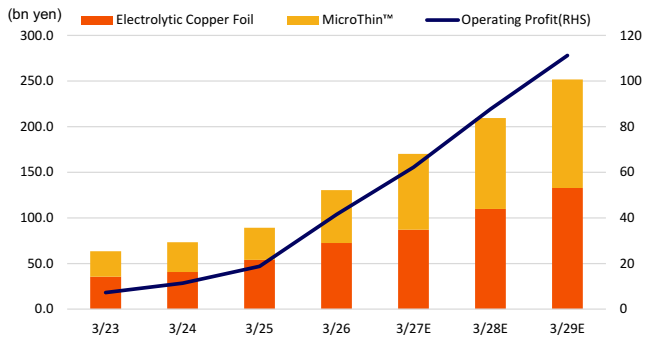
We revise our operating profit forecasts for FY27/3-FY29/3 downward by -16% /-9% /-8%, respectively. Within the copper foil business, we have raised our outlook for MicroThin™ and FaradFlex®, while lowering our outlook for VSP™ used in AI motherboards. In our valuation, we have incorporated the average premium observed over the past month, which we believe reflects investors' ongoing concerns about competition in VSP™. As a result, we have lowered our FY28/3 valuation premium from 60% to 20%. Together with the downward revision to earnings forecasts, we reduce our target price by 31%, from ¥62,600 to ¥43,200.

Exhibit 20: Mitsui Kinzoku: Earnings summary

(Bn JPY)			GSE	GSE	GSE	CoE						GSE
Sales	3/25	3/26	3/27E	3/28E	3/29E	3/27E	3/26 1Q	3/26 2Q	3/26 3Q	3/26 4Q	3/27 1Q	3/27 2Q
Engineered Materials	246.2	328.4	412.8	466.4	525.8	411.0	71.3	79.2	83.1	94.8	100.6	102.4
Metals	325.0	376.7	387.4	396.2	404.1	430.0	74.0	87.2	93.8	121.7	98.3	102.5
Corporate	231.8	187.7	130.0	135.0	140.0	138.0	53.7	58.3	33.9	41.8	38.2	32.0
Adjustment	-90.7	-134.3	-115.0	-118.0	-119.0	-129.0	-30.0	-29.5	-32.9	-41.9	-35.4	-28.0
Total	**712.3**	**758.5**	**815.2**	**879.6**	**950.9**	**850.0**	**169.0**	**195.2**	**177.9**	**216.4**	**201.7**	**208.8**
Operating profit												
Engineered Materials	41.8	67.5	88.9	116.7	143.2	79.0	12.9	15.2	17.4	22.0	18.3	20.6
Metals	41.8	70.8	36.4	49.1	50.6	24.0	2.9	14.8	18.1	35.0	5.3	14.0
Corporate	7.0	0.4	-0.1	-0.1	-0.1	0.1	-1.1	-0.4	0.6	1.3	-0.5	-0.3
Business Creation	-6.3	-7.5	-9.0	-9.0	-9.0	-9.0	-1.1	-2.6	-1.4	-2.4	-2.2	-1.3
Adjustment	-3.2	-0.3	0.0	0.0	0.0	-0.1	-2.2	1.3	-2.8	3.4	0.2	0.0
Total	**74.7**	**130.9**	**116.2**	**156.7**	**184.7**	**94.0**	**11.4**	**28.3**	**32.0**	**59.2**	**21.1**	**33.0**
OPM												
Engineered Materials	17.0%	20.6%	21.5%	25.0%	27.2%	19.2%	18.1%	19.2%	20.9%	23.2%	18.2%	20.1%
Metals	12.9%	18.8%	9.4%	12.4%	12.5%	5.6%	3.9%	17.0%	19.3%	28.8%	5.4%	13.7%
Total	**10.5%**	**17.3%**	**14.3%**	**17.8%**	**19.4%**	**11.1%**	**6.7%**	**14.5%**	**18.0%**	**27.4%**	**10.5%**	**15.8%**

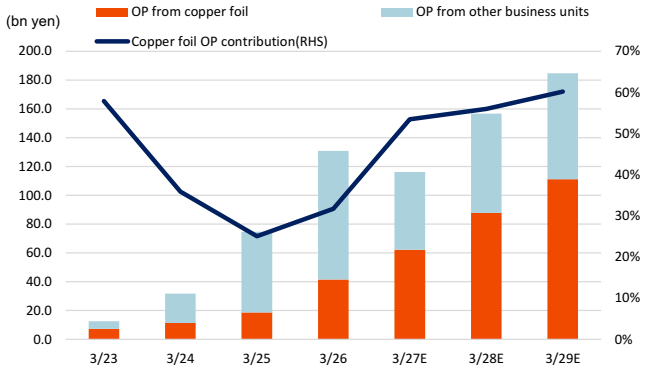
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 21: Mitsui Kinzoku: Sales and operating profit outlook by major product in the copper foil business



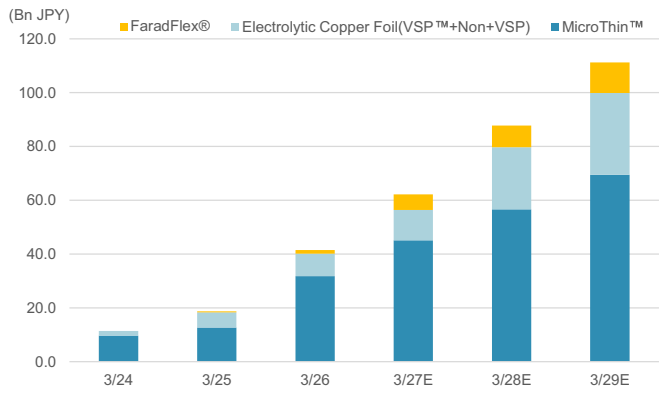
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 22: Mitsui Kinzoku: Trend in copper foil business's share of company-wide profit (GSE)



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 23: OP mix of MicroThin, electrolytic copper foil, and FaradFlex



Source: Company data, Goldman Sachs Global Investment Research

Tokyo Ohka Kogyo

Tokyo Ohka Kogyo's Q2 operating profit declined 9% from Q1 to Q2 due to the impact of surging raw material costs, particularly for high-purity chemicals, stemming from the Middle East disruptions. However, operating profit still grew 37% YoY, demonstrating stronger-than-expected performance relative to our forecast (QoQ -17% / YoY +24%). In particular, top-line growth in advanced photoresists, especially EUV and ArF resists, exceeded our expectations. The company raised its full-year operating profit guidance from ¥52.2 billion to ¥60.6 billion, but its assumptions still appear somewhat conservative, particularly for front-end resists, with ArF and KrF resist sales projected to decline 5% from 1H to 2H. We forecast FY26/12 operating profit of ¥62.0 billion, above company guidance. We continue to view Tokyo Ohka positively as the global leader in both front-end and back-end photoresists, with WHS materials emerging as a third growth pillar. We therefore raise our forecasts, primarily reflecting stronger assumptions for front-end resists, especially EUV resists, and WHS materials (increasing our operating profit forecasts for FY26/12-FY28/12 by +4% / +4% / +2%, respectively), and and increase our target price by 3%, from ¥13,260 to ¥13,700.

In particular, we estimate that EUV resist sales, a key area of investor focus, accelerated from approximately +55% YoY growth in Q1 to around +70% YoY growth in Q2. This was likely driven by the ramp-up of 2nm production at a Taiwanese foundry, as well as strong expansion in both logic and DRAM applications in Korea. Performance in Taiwan was especially impressive given investor concerns that growth could be constrained by the company's presumed share loss at the 3nm node. The results are also consistent with management's comments that the company expects a higher share of adopted layers at the 2nm generation than at the previous node. We believe the scenario of recovering share lost at 3nm through the generational transition is now beginning to be supported by earnings results.

For Korea, we believe growth was driven by both an increase in the number of EUV layers used in leading-edge DRAM and higher wafer starts supported by HBM demand. Together with gains in leading-edge market share, these factors appear to be creating a positive multiplier effect. We expect these trends to continue into the second half, supported by the full-scale ramp-up of 2nm production as well as expanding demand in North America and Korea. As a result, we believe momentum remains strong. Accordingly, while the company raised its FY26/12 EUV resist sales forecast from +20% YoY growth to +50% YoY growth as of Q2, we expect further upside and forecast top-line growth of approximately +60%.

KrF resists are also performing well. Sales to Taiwan and Japan increased by double-digit percentages QoQ, with growth continuing mainly in memory-related applications. We would reiterate that higher-layer-count 3D NAND requires not only additional deposition and etching steps but also more lithography passes. As such, KrF resists should not be viewed as a legacy product area, but rather as a structural beneficiary of NAND capacity expansion and increasing layer counts. The company raised its full-year forecast from +10% YoY growth to +20% YoY growth in response to stronger demand from advanced DRAM and 3D NAND. However, its assumption that second-half sales will decline by approximately 5% versus the first half appears conservative and suggests additional upside potential.

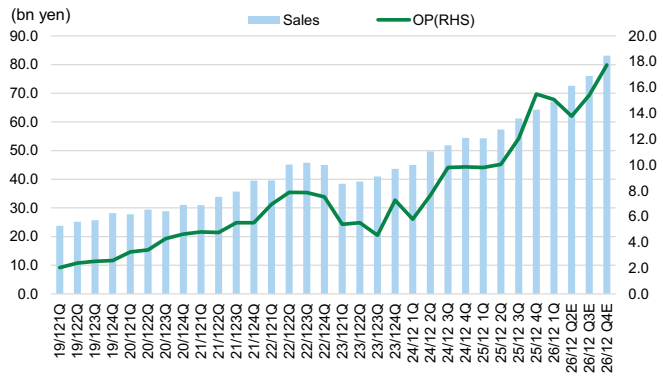
Back-end materials are also performing strongly. In particular, WHS materials, for which the company already expected significant growth, saw guidance raised even further, from +170% YoY growth to +250% YoY growth. WHS is a material system used to temporarily bond thinned wafers to carriers such as glass (TB: Temporary Bonding) and subsequently debond them with low stress after TSV formation and backside processing (DB: Debonding). In CoWoS manufacturing, WHS is effectively one of the essential processes because silicon interposers must be thinned to several tens of microns during TSV formation and backside processing. Material consumption is approximately proportional to CoWoS production volumes multiplied by interposer area, meaning the business benefits from both CoWoS capacity expansion at Taiwanese foundries and growing interposer sizes. According to our channel checks, Tokyo Ohka's materials have become the de facto standard for advanced packaging (CoWoS)-related TB/DB materials among Taiwanese OSATs. Yield differences arising from debonding-related stress act as a meaningful barrier to entry, supporting continued strong growth. We also expect organic interposers to begin ramping gradually from around 2028, and believe Tokyo Ohka's materials are likely to be adopted in this area as well. AI server GPUs and ASICs have already reached reticle size limits, meaning future performance improvements will increasingly come from larger implementation areas enabled by multi-reticle interposers. Because WHS material consumption increases roughly in proportion to interposer area, it is a direct beneficiary of this scaling trend. We therefore reiterate an even more constructive stance on the stock.

Exhibit 24: Tokyo Ohka: Earnings summary

(Billions of yen, %)	2024/12	2025/12	GSE 2026/12	GSE 2027/12	GSE 2028/12	CoE 2026/12	12/25 1Q	12/25 2Q	12/25 3Q	12/25 4Q	12/25 1Q	12/25 2Q
Sales	**201.0**	**237.0**	**298.8**	**348.3**	**393.1**	**291.0**	**54.3**	**57.4**	**61.2**	**64.3**	**67.1**	**72.6**
YoY	23%	18%	26%	17%	13%	23%	21%	15%	18%	18%	24%	27%
QoQ							0%	6%	7%	5%	4%	8%
Electronic functional materials	**107.5**	**124.7**	**156.5**	**189.0**	**214.7**	**155.0**	**27.8**	**30.4**	**32.8**	**33.8**	**35.8**	**38.4**
YoY	22%	16%	26%	21%	14%	24%	13%	13%	18%	19%	29%	26%
QoQ							-2%	10%	8%	3%	6%	7%
High-purity chemicals	**91.5**	**109.4**	**139.1**	**155.8**	**174.5**	**131.0**	**25.6**	**26.4**	**27.9**	**29.5**	**30.0**	**33.0**
YoY	27%	20%	27%	12%	12%	20%	28%	18%	19%	16%	17%	25%
QoQ							0%	3%	6%	6%	2%	10%
Other	**2.0**	**2.9**	**3.2**	**3.5**	**3.9**	**5.0**	**0.9**	**0.6**	**0.5**	**0.9**	**1.3**	**1.2**
YoY	-34%	48%	9%	9%	11%	71%	88%	38%	-18%	108%	40%	115%
QoQ							110%	-39%	-8%	77%	41%	-7%
Operating Profit	**33.1**	**47.4**	**62.0**	**76.9**	**89.4**	**60.6**	**9.8**	**10.0**	**12.0**	**15.5**	**15.1**	**13.8**
YoY	46%	43%	31%	24%	16%	28%	69%	31%	23%	57%	54%	37%
QoQ							0%	2%	20%	29%	-3%	-9%
OPM	16.5%	20.0%	20.7%	22.1%	22.7%	20.8%	18.1%	17.5%	19.7%	24.1%	22.5%	19.0%

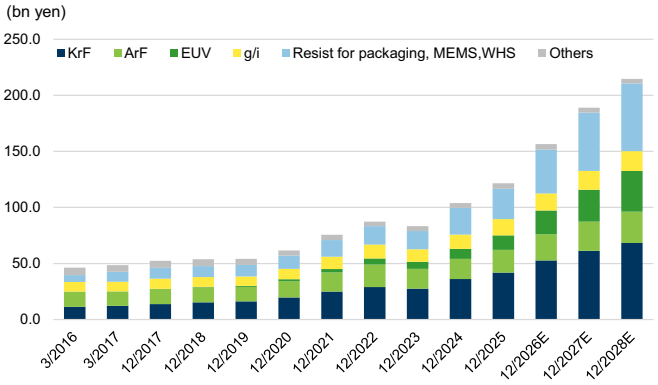
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 25: Tokyo Ohka: Quarterly sales and operating profit



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 26: Tokyo Ohka: Electronic functional materials revenue trend



Source: Company data, Goldman Sachs Global Investment Research

Mitsubishi Gas Chemical: Downgrade to Neutral on lower profit upside in BT materials

We forecast Mitsubishi Gas Chemical's CCL (BT materials) sales for FY27/3 to grow by approximately 24% YoY, exceeding the company's guidance of slightly below 20% YoY growth. However, this would still fall well short of competitor Resonac's nearly 4x YoY growth, suggesting that Mitsubishi Gas Chemical's full-year CCL sales could reach only around 60% of Resonac's level, with the gap between the two companies likely widening considerably.

Part of this difference reflects the higher growth profile of the FC-BGA substrate market, where Resonac has a strong position and which is benefiting from larger and more complex AI server GPUs and ASICs, versus the FC-CSP substrate market, where Mitsubishi Gas Chemical generates roughly 90% of its sales and has greater exposure. However, we believe procurement capabilities for high-quality low-CTE glass cloth are also likely to be a meaningful factor in the near term. Mitsubishi Gas Chemical has been working to qualify low-CTE glass cloth from multiple domestic and overseas suppliers in addition to its existing supplier, Nittobo. However, changing glass cloth suppliers requires much more than simply qualifying the CCL material itself. The process involves substrate maker qualification, OSAT assembly and reliability testing, semiconductor vendor qualification, and ultimately approval by end customers such as NVIDIA and AWS. Particularly in AI servers, where the GPUs and HBM mounted on substrates are extremely expensive, the value destruction associated with material-related failures is substantial. As a result, all participants in the value chain tend to be inherently conservative regarding supplier substitutions, including at the raw material level. Given the long and complex CCL supply chain, the large number of stakeholders involved, and quality variability across production lots from new glass cloth suppliers, we believe diversification of glass cloth procurement sources is more challenging in practice than it may appear.

Furthermore, while Nittobo's T-glass cloth production capacity is expected to increase steadily through 2027, new capacity is likely to be focused primarily on thick glass cloth used for BGA substrates, where demand remains particularly robust. By contrast, thin glass cloth for FC-CSP applications, including those used in LPDDR and e-SSD-related applications, is likely to remain in tight supply. In other words, we believe the dynamic whereby glass cloth availability effectively caps volume growth is unlikely to be resolved even in FY28/3.

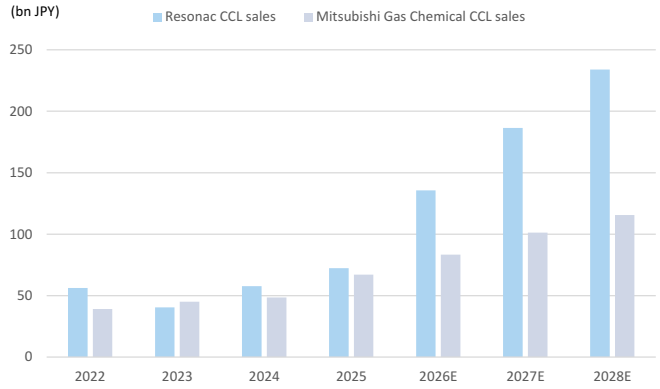
On pricing, we believe investors may also find Mitsubishi Gas Chemical's position somewhat less compelling. While Resonac has demonstrated that its announced price increases are likely to be accepted broadly in line with company expectations, Mitsubishi Gas Chemical's CCL price increases are likely to remain relatively modest. In fact, despite the company's announcement in March 2026 of a 30% price increase across all products, the benefit to FY27/3 1Q earnings was limited, even though the price increases are applied on a shipment basis. In addition, management has indicated that the primary objective of its pricing actions is to preserve margins by passing through higher raw material costs, including glass cloth. Compared with Resonac's CCL business, where profitability is expected to improve substantially, investors are likely to view Mitsubishi Gas Chemical's earnings outlook as lacking the same level of impact.

As a result, we believe the probability of the significant BT material margin expansion

that we had previously anticipated has declined. We therefore reduce our operating profit forecasts for the BT materials business by 12% / 23% / 27% for FY27/3-FY29/3, respectively.

That said, demand for BT materials used in CSP substrates remains solid, supported by growth in LPDDR and e-SSD applications, and we would emphasize that the volume growth story itself remains intact. The key issue is the difference in the nature of pricing actions and the resulting gap in profitability, rather than a deterioration in end-market demand. Going forward, we believe investors should focus on the utilization rate of the company's new Thailand facility, the potential volume upside if glass cloth procurement diversification progresses, and any change in the company's negotiating stance regarding price revisions in FY28/3.

Exhibit 27: Comparison between Resonac and Mitsubishi Gas Chemical CCL sales (GSE)



Source: Company data, Goldman Sachs Global Investment Research

The other three ICT Solutions businesses are expected to continue performing solidly, broadly in line with our previous assumptions. In particular, Electronics Chemicals (EL chemicals) should deliver steady top-line growth from FY27/3 to FY29/3, supported by rising utilization rates at Korean and US device manufacturers where the company holds a high market share. In addition to memory production increases, the structural trend toward greater miniaturization and higher layer counts in leading-edge logic and memory devices is increasing the number of cleaning steps per wafer, which should support volume growth. On the supply side, capacity expansions for ultra-high-purity hydrogen peroxide under the company's three-site US production network (Arizona, Oregon, and Texas) are expected to be phased in from FY26/3 through FY28/3, which we view as enhancing the visibility of medium-term growth. In addition, lower depreciation expenses resulting from impairments in Taiwan and mainland China should provide support to operating profit, particularly in FY27/3.

Meanwhile, optical resin polymers outperformed our expectations in FY27/3 Q1, with volumes rising 20% YoY. We expect solid performance to continue through the full year, supported not only by limited exposure to high-end smartphones but also by expanding applications outside mobile devices, including surveillance cameras and automotive cameras. The company's high-refractive-index, low-birefringence specialty polycarbonate is a high-share product with few substitute materials, and the structural demand for smaller lenses and higher pixel counts continues to support pricing and mix.

For FY27/3, we have raised our company-wide operating profit forecast by 13%,

primarily reflecting inventory valuation gains and front-loaded demand related mainly to methanol and PC resin businesses stemming from the Middle East disruptions. However, from FY28/3 onward, the negative impact from the previously discussed BT materials forecast cuts becomes significant, leading us to lower our operating profit forecasts by 8% for FY28/3 and 10% for FY29/3. As a result, operating profit growth in FY28/3 is expected to remain relatively modest at +6% YoY. Given the decline in profit levels for Specialty Functional Materials, particularly BT materials, which remains a key focus area for investors, we have reduced our sector-relative premium/discount assumption from +5% to -15%. Combined with our earnings forecast revisions, we lower our target price from ¥6,890 to ¥4,700. Since we initiated coverage with a Buy rating on July 17, 2020, the stock is up 144% vs. TOPIX up 164% (as of August 28 market close). With limited upside potential remaining in the share price, we downgrade our investment rating from Buy to Neutral.

Key risks are as follows:

1. Semiconductor materials market outlook

While demand growth is expected, particularly for AI server-related applications, uncertainty remains regarding the timing of recovery in demand for general-purpose semiconductors and the progress of customer inventory adjustments. Earnings could deviate from our assumptions if sales volumes of BT materials, semiconductor chemicals, and related products exceed or fall short of our expectations.

2. Methanol market conditions

For the methanol business, market conditions influenced by the Middle East disruptions are an important driver of earnings volatility. Selling prices and profitability may fluctuate depending on global supply-demand conditions, demand in China, and natural gas prices, which are a key feedstock. In particular, methanol prices above our assumptions would represent an upside risk to earnings, while weaker demand or increased supply leading to lower market prices could weigh on earnings.

3. Foreign exchange rates

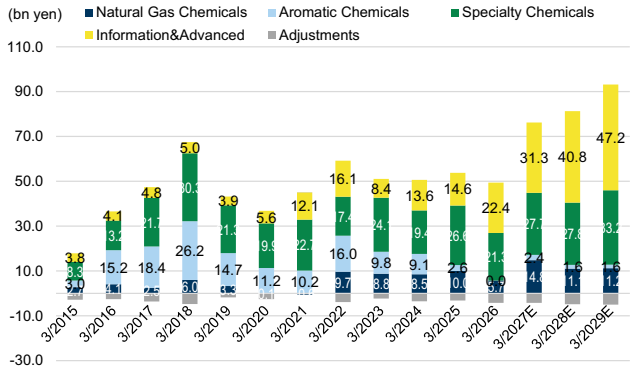
The company is exposed to foreign exchange fluctuations, particularly in the JPY/USD rate, given its extensive overseas operations and numerous equity-method affiliates. A stronger yen could become a headwind to earnings while a weaker yen would provide a potential tailwind.

Exhibit 28: Mitsubishi Gas Chemical: Earnings summary

(bn yen,%)				GSE	GSE	GSE	CoE						GSE
Sales by business segment	2024/3	2025/3	2026/3	2027/3	2028/3	2029/3	2027/3	26/3 1Q	26/3 2Q	26/3 3Q	26/3 4Q	27/3 1Q	27/3 2Q
Natural Gas Chemicals	215.5	232.9	213.5	279.6	256.4	260.6	277.6	49.8	54.6	56.7	52.4	79.2	70.0
Aromatic Chemicals	200.6	91.2	73.8	83.8	88.2	92.8	82.8	18.5	18.3	18.8	18.2	20.6	21.0
Specialty Chemicals	345.2	370.6	350.8	358.2	365.9	380.8	383.0	86.9	87.0	86.0	90.9	95.6	93.0
Information&Advanced	64.0	73.5	97.5	117.9	139.6	158.8	114.1	21.9	23.9	26.0	25.7	27.2	29.1
Adjustments	-11.9	5.4	2.6	2.7	2.8	2.9	2.5	0.9	-0.1	0.3	1.6	1.1	0.5
Total	**813.4**	**773.6**	**738.2**	**842.2**	**852.9**	**895.9**	**860.0**	**178.0**	**183.7**	**187.8**	**188.8**	**223.7**	**213.6**
Operating Profit by business segment													
Natural Gas Chemicals	8.5	10.0	5.7	14.8	11.1	11.2	15.3	1.2	1.8	2.2	0.5	10.2	0.8
Aromatic Chemicals	9.1	2.6	0.0	2.4	1.6	1.6	2.8	0.6	0.5	0.6	-1.7	1.6	0.6
Specialty Chemicals	19.4	26.6	21.3	27.7	27.8	33.2	29.1	5.1	7.6	4.1	4.5	10.2	6.6
Information&Advanced	13.6	14.6	22.4	31.3	40.8	47.2	28.7	4.4	5.4	6.3	6.3	6.9	7.5
Adjustments	-3.5	-3.2	-4.2	-4.2	-4.8	-5.0	-4.9	-0.6	-1.2	-0.8	-1.6	-1.2	-1.2
Total	**47.3**	**50.8**	**45.2**	**72.0**	**76.5**	**88.2**	**71.0**	**11.0**	**14.2**	**12.7**	**7.5**	**27.8**	**14.3**
OP margin by business segment													
Natural Gas Chemicals	3.9%	4.3%	2.7%	5.3%	4.3%	4.3%	5.5%	2.4%	3.3%	3.9%	1.0%	12.9%	1.1%
Aromatic Chemicals	4.5%	2.9%	0.0%	2.9%	1.8%	1.7%	3.4%	3.2%	2.7%	3.2%	-9.3%	7.8%	2.9%
Specialty Chemicals	5.6%	7.2%	6.1%	7.7%	7.6%	8.7%	7.6%	5.9%	8.7%	4.8%	5.0%	10.7%	7.1%
Information&Advanced	21.3%	19.9%	23.0%	26.5%	29.2%	29.7%	25.2%	20.1%	22.6%	24.2%	24.5%	25.4%	25.8%
Total	**5.8%**	**6.6%**	**6.1%**	**8.5%**	**9.0%**	**9.8%**	**8.3%**	**6.2%**	**7.7%**	**6.7%**	**4.0%**	**12.4%**	**6.7%**

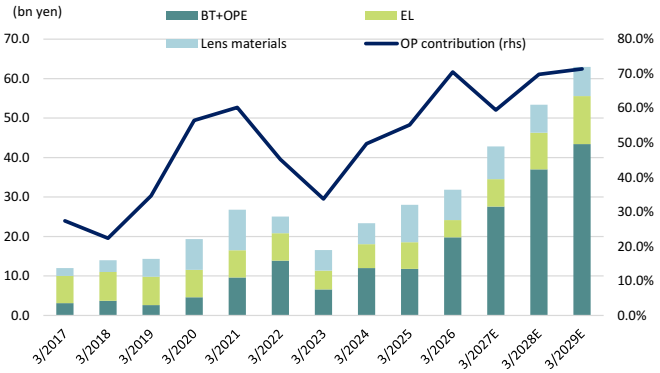
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 29: Mitsubishi Gas Chemical: Operating profit trends by segment



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 30: Mitsubishi Gas Chemical: GSe profit trends for electronic materials businesses



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 31: Mitsubishi Gas Chemical: Financial summary

Profit model (¥bn)	3/25	3/26	3/27E	3/28E	3/29E
Revenue	773.6	738.2	842.2	852.9	895.9
Cost of goods sold	-609.3	-576.9	-650.6	-653.2	-680.8
Gross profit	164.3	161.4	191.6	199.7	215.1
SG&A and other	-113.4	-116.1	-119.6	-123.2	-126.9
Operating profit	50.9	45.3	72.0	76.5	88.2
Net interest income/(expense)	-0.5	-1.2	-1.4	-1.4	-1.4
Equity in earnings of affiliates	11.0	1.5	9.9	9.5	9.5
Net other nonoperating inc/(exp)					
Recurring profit	60.3	51.9	82.1	86.2	97.9
Extraordinary income					
Extraordinary expense					
Pretax profit	56.3	-16.1	77.1	78.2	92.9
Income tax	-5.4	-18.1	-15.4	-16.4	-18.6
Minority interest	-5.4	-6.2	-6.4	-6.4	-6.6
Net income	45.5	-40.3	55.3	55.4	67.7
Capital expenditures (excl. leases)					
Capital expenditures (incl. leases)	-88.7	-71.9	-61.0	-80.0	-80.0
Depreciation & amortization	-34.6	-38.2	-40.0	-42.0	-46.0
EPS (basic) (¥)	233.9	-207.0	285.9	288.2	354.0
EPS (fully diluted) (¥)	233.9	-207.0	285.9	288.2	354.0
BVPS (¥)	3,431.9	3,319.4	3,523.0	3,697.4	3,909.8
DPS (¥)	95.0	100.0	110.0	120.0	140.0
Dividend payout ratio (%)	40.6	-48.3	38.5	41.6	39.5

Year-on-year change (%)	3/25	3/26	3/27E	3/28E	3/29E
Revenue	-4.9	-4.6	14.1	1.3	5.0
Operating profit	7.4	-10.9	59.0	6.3	15.3
Recurring profit	31.0	-13.9	58.0	5.0	13.6
Net income	17.3	-188.5	237.2	0.2	22.2
EPS (basic)	20.7	-188.5	238.1	0.8	22.8
EPS (fully diluted)	20.7	-188.5	238.1	0.8	22.8

Margins (%)	3/25	3/26	3/27E	3/28E	3/29E
Operating profit	6.6	6.1	8.5	9.0	9.8
EBITDA	11.0	11.3	13.3	13.9	15.0
Recurring profit	7.8	7.0	9.7	10.1	10.9
Net income	5.9	-5.5	6.6	6.5	7.6

Cash flow statement (¥bn)	3/25	3/26	3/27E	3/28E	3/29E
Net income	45.5	-40.3	55.3	55.4	67.7
D&A add-back	34.6	38.2	40.0	42.0	46.0
Minority interest add-back	5.4	6.2	6.4	6.4	6.6
Net (inc)/dec in working capital	-3.8	3.1	-47.4	-2.7	-14.7
Other operating cash flow	-6.3	67.6	-3.9	-6.5	-8.5
Cash flow from operations	75.4	74.7	50.4	94.6	97.1
Capital expenditures (incl. leases)	-88.7	-71.9	-61.0	-80.0	-80.0
Purchases of long-term securities					
Sales of long-term securities					
Other investing cash flow	-2.3	10.6	0.0	0.0	0.0
Cash flow from investments	-91.0	-61.3	-61.0	-80.0	-80.0
Dividends paid (common & preferred)	-18.5	-19.5	-21.3	-23.1	-26.8
Incr./(decr.) in debt	32.8	5.8	20.0	10.0	10.0
Common stock issuance	-4.8	0.1	-5.0	-6.0	-6.0
Other financing cash flow	2.9	1.0	-0.0	0.0	0.0
Cash flow from financing	12.4	-12.7	-6.3	-19.1	-21.8
Total cash flow	-3.2	0.7	-16.9	-4.5	-4.7

Balance sheet (¥bn)	3/25	3/26	3/27E	3/28E	3/29E
Cash & equivalents	68.2	69.0	52.1	47.6	42.9
Accounts receivable	157.9	149.6	170.6	172.8	181.5
Inventory	207.5	207.0	245.1	246.1	256.5
Other current assets	26.6	25.0	25.0	25.0	25.0
Total current assets	460.3	450.5	492.8	491.4	505.8
Net PP&E	366.6	334.3	355.3	393.3	427.3
Net intangibles	25.0	23.5	23.5	23.5	23.5
Total investments	242.1	259.4	269.3	278.8	288.3
Other long-term assets	25.8	45.2	45.2	45.2	45.2
Total assets	1,119.7	1,113.0	1,186.2	1,232.4	1,290.3
Accounts payable	103.1	92.0	103.7	104.1	108.5
Short-term debt	76.6	64.9	64.9	64.9	64.9
Other current liabilities	95.3	72.9	72.9	72.9	72.9
Total current liabilities	274.9	229.8	241.6	242.0	246.4
Long-term debt	116.4	159.3	179.3	189.3	199.3
Other long-term liabilities	31.0	44.3	44.3	44.3	44.3
Total long-term liabilities	147.4	203.7	223.7	233.7	243.7
Total liabilities	422.3	433.5	465.2	475.7	490.1
Minority interest	29.2	33.1	39.5	45.9	52.5
Total common equity	668.2	646.4	681.4	710.8	747.7
Total liabilities & equity	1,119.7	1,113.0	1,186.2	1,232.4	1,290.3
Net debt	124.7	155.3	192.2	206.7	221.4

Ratios	3/25	3/26	3/27E	3/28E	3/29E
CROCI (%)	5.6	4.8	6.1	5.7	6.2
ROE (%)	6.6	-5.9	7.9	7.5	8.7
ROA (%)	4.2	-3.6	4.8	4.6	5.4
Net debt/equity (%)	17.9	22.9	26.7	27.3	27.7
Interest coverage ratio (X)	21.4	16.8	25.7	27.3	31.5

Valuation	3/25	3/26	3/27E	3/28E	3/29E
P/E (X)	11.7		13.7	13.6	11.0
EV/EBITDA (X)	10.7	11.4	8.9	8.6	7.7
EV/GCI (X)	0.5	0.5	0.6	0.6	0.5
P/B (X)	0.8	0.8	1.1	1.1	1.0
Dividend yield (%)	3.5	3.6	2.8	3.1	3.6
FCF yield (%)	- 1.7	0.4	- 1.3	1.8	2.1

Note: Last actual year may include reported and estimated data.

Source: Company data, Goldman Sachs Global Investment Research

Investment Thesis - Mitsui Kinzoku

Mitsui Kinzoku's business centers on engineered materials (including copper foil for semiconductor package substrates and PCB servers, exhaust gas purification catalysts for motorcycles, and battery materials) and metals (zinc/lead, copper/precious metals). It is a comprehensive materials manufacturer focused on high-value-added materials. We expect top-line growth for its VSP used in servers to be driven by a combination of volume growth, an improved product mix, and the effects of price hikes. With significant earnings growth in MicroThin™ as well, we forecast high operating profit growth in the copper foil business.

Price Target Risks and Methodology - Mitsui Kinzoku

We are Buy rated on Mitsui Kinzoku with a 12-month target price of ¥43,200. Our target price is based on the correlation between the materials sector's EV/GCI and our FY3/28E CROCI/WACC forecast (cash return multiple of 0.7X plus a 20% premium to the sector average). Key risks include slowdown in AI server demand, yen appreciation, and decline in prices for zinc and other metals.

Investment Thesis - JX Advanced Metals

JX Advanced Metals is a global player specializing in advanced materials related to

copper and rare metals. It operates under an integrated supply chain that spans across resource procurement to recycling. We expect strong growth in various materials for semiconductors/AI servers (e.g. semiconductor targets, InP substrates, and materials for tantalum capacitors, for which JX Advanced Metals commands high market shares) as well as high profit growth in focus businesses supported by volume increases in high-margin business areas such as aircraft-use titanium sponge made by its subsidiary Toho Titanium. We believe the high growth potential of the company's focus businesses and the stable profit expansion of its base businesses are not yet fully priced in at current valuations.

Price Target Risks and Methodology - JX Advanced Metals Corp.
We are Buy rated on JX Advanced Metals with a 12-month target price of ¥5,160. Our target price is based on the materials sector EV/GCI and FY3/28E CROCI/WACC (CROCI multiple of 0.7X, plus the stock's recent historical premium of 25% to the sector average).

Key risks: (1) Slowdown in semiconductor demand, (2) slowdown in AI server demand, (3) delays in structural reforms, (4) yen appreciation, and (5) fluctuations in copper and other metal prices.

Investment Thesis - SUMCO
SUMCO is a pure play in wafers that readily benefits from its high weighting in advanced logic and other high-end products. As 300 mm wafers orders are mostly based on long-term agreements through 2027/2028, we see prospects for a stable earnings recovery and growth. We are Buy-rated on SUMCO.

Price Target Risks and Methodology - SUMCO
We are Buy-rated on SUMCO with a 12-month target price of ¥5,500. Our target price is based on the FY12/27-FY12/28 average correlation between the materials sector EV/GCI and CROCI/WACC estimate (using a cash return multiple of 0.7X).

Key risks: A slowdown in semiconductor demand, yen appreciation, and a greater-than-expected increase in depreciation and other fixed costs.

Investment Thesis - Resonac
Resonac offers a broad lineup of semiconductor materials spanning the entire manufacturing process, from front-end to back-end. The company holds top-class market share in multiple materials, including CCL, DFR, NCF, and TIM materials, and is benefiting broadly from the growth of AI servers, including through its HD media business. We forecast high operating profit growth in the semiconductor and electronic materials business.

Price Target Risks and Methodology - Resonac
We are Buy rated on Resonac with a 12-month target price of ¥25,060. Our target price is based on the correlation between the materials sector's EV/GCI and the FY12/27E CROCI/WACC (cash-return multiple of 0.7X plus a 30% premium to the sector average). Key risks include a slowdown in semiconductor demand, yen appreciation, and decline in graphite electrode earnings.

Investment Thesis - Nitto Boseki

Nitto Boseki (Nittobo) is the top manufacturer of low thermal expansion glass cloth (T-glass) used in semiconductor package substrates, with roughly a 90% global market share. For the thick glass cloth used as a core material in ABF substrates, the company supplied nearly 100% as of the end of 2025. Driven by its electronic materials business, centered on these special glass products, we forecast robust operating profit growth into FY3/29.

Price Target Risks and Methodology - Nitto Boseki

We are Buy rated on Nitto Boseki with a 12-month target price of ¥4,890. Our target price is based on the correlation between the materials sector's EV/GCI and the FY3/28E CROCI/WACC forecast (cash-return multiple of 0.7x plus a 40% premium to the sector average). Key risks include fluctuations in semiconductor demand, currency volatility, and changes in the competitive landscape for specialty glass.

Investment Thesis - Tokyo Ohka Kogyo

Tokyo Ohka Kogyo is a leading supplier of semiconductor materials, including semiconductor photoresists. We think KrF photoresists are a key focus point for earnings and the share price, given the company's industry-leading market share and prospects for high growth for 3D NAND and power semiconductor applications. Another focus point is uptake trends on advanced production lines for ArF and EUV photoresists, which have high contribution margins. In addition to strong top-line trends for KrF and EUV photoresists, we expect good progress in revising prices for high-purity chemicals. We are Buy-rated.

Price Target Risks and Methodology - Tokyo Ohka Kogyo

We are Buy rated on Tokyo Ohka Kogyo with a 12-month target price of ¥13,700. Our target price is based 85% on fundamental value, calculated using the correlation between the materials sector EV/GCI and our FY12/27 CROCI/WACC estimate (cash return multiple of 0.7X, plus a 45% premium applied vs. the sector average), and 15% on M&A value, derived using an FY12/27E EV/EBITDA of 15X. Key risks include a slowdown in semiconductor demand, stiffer-than-expected competition in EUV photoresists, and forex swings.

Investment Thesis - Mitsubishi Gas Chemical

We are positive on Mitsubishi Gas Chemical's competitive positions in electronic chemicals, optical resin polymers, and methanol. Growing process complexity in advanced semiconductors and ongoing capacity expansions should support medium-term growth in electronic chemicals, while optical polymers and chemicals businesses continue to benefit from strong market positions and favorable demand trends. However, we are cautious on BT materials, where glass cloth procurement constraints and the nature of the company's pricing strategy reduce the likelihood of the meaningful margin expansion we had previously anticipated. While demand remains healthy, particularly in LPDDR and e-SSD-related applications, we believe the risk-reward profile is balanced.

Price Target Risks and Methodology - Mitsubishi Gas Chemical

We are Neutral rated on Mitsubishi Gas Chemical with a 12-month target price of ¥4,700. Our target price is based on the materials sector EV/GCI and FY3/28E CROCI/WACC correlation (sector cash-return multiple of 0.75X, applying a 15% discount to the sector average).

Key risks: Upside/downside risks include the semiconductor materials market demand outlook, methanol pricing environment, and forex swings.

Disclosure Appendix

Reg AC

We, Atsushi Ikeda and Yuri Izumikawa, hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

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Goldman Sachs Investment Research global Equity coverage universe

	Rating Distribution			Investment Banking Relationships		
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Price target and rating history chart(s)

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Target price history table(s)

Tokyo Ohka Kogyo (4186.T)

Date of report	Target price (¥)	Closing price (¥)
11-May-26	13,260	11,190
01-Mar-26	12,510	9,220
21-Nov-25	7,010	5,574
10-Oct-25	5,790	4,917
06-Aug-25	5,520	4,210
12-May-25	5,490	3,583
25-Feb-25	5,450	3,610
12-Nov-24	5,200	3,561
06-Aug-24	5,000	3,316
13-May-24	5,100	4,434
25-Mar-24	5,200	4,548
13-Feb-24	4,040	3,669
13-Oct-23	10,610	3,090
28-Sep-23	10,970	2,929
06-Sep-23	11,440	3,368

JX Advanced Metals Corp. (5016.T)

Date of report	Target price (¥)	Closing price (¥)
06-Jul-26	5,010	4,022
08-Jun-26	4,900	3,532
01-Mar-26	4,900	4,159
21-Nov-25	2,490	1,602
10-Oct-25	2,480	2,102
10-Sep-25	1,770	1,471

SUMCO (3436.T)

Date of report	Target price (¥)	Closing price (¥)
06-Jul-26	6,140	5,171
05-Jun-26	5,130	4,041
01-Mar-26	1,910	1,828
21-Nov-25	1,600	1,175
10-Oct-25	2,060	1,658
17-Aug-25	1,370	1,201
08-May-25	1,270	994
30-Apr-25	1,440	984
09-Apr-25	1,630	779
17-Feb-25	1,740	1,114
10-Jan-25	1,890	1,155
18-Nov-24	2,140	1,270
23-Aug-24	2,500	1,807
30-Jul-24	2,900	2,465
25-Mar-24	3,000	2,425
26-Feb-24	2,700	2,374
31-Jan-24	2,440	2,256
19-Dec-23	2,490	2,186
28-Sep-23	2,210	1,945
06-Sep-23	2,230	1,998

Mitsubishi Gas Chemical (4182.T)

Date of report	Target price (¥)	Closing price (¥)
05-Jun-26	6,890	5,180
01-Mar-26	5,930	4,364
21-Nov-25	3,040	2,537
10-Oct-25	3,460	2,706
06-Jun-25	3,040	2,181
13-Feb-25	3,490	2,724
13-Nov-24	3,640	2,795
28-Aug-24	3,570	2,687
17-May-24	3,540	3,020
10-Apr-24	3,160	2,752
09-Feb-24	2,890	2,316
23-Nov-23	2,760	2,264
19-Oct-23	2,460	2,018

Resonac Holdings (4004.T)

Date of report	Target price (¥)	Closing price (¥)
05-Jun-26	23,920	17,315
01-Mar-26	15,770	11,930
12-Jan-26	8,050	6,810

Mitsui Kinzoku Co. (5706.T)

Date of report	Target price (¥)	Closing price (¥)
05-Jun-26	62,600	44,490
01-Mar-26	44,100	36,910
12-Jan-26	24,000	19,900

Nitto Boseki Co (3110.T)

Date of report	Target price (¥)	Closing price (¥)
06-Jul-26	4,820	3,515
05-Jun-26	23,800	4,050
01-Mar-26	27,770	5,040
12-Jan-26	10,840	2,508

Price targets shown in table(s) are unadjusted for corporate actions.

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