Media Release:

Sino-American Silicon Products Inc. Assigned 'twAA-/twA-1+' Ratings; Outlook Stable

August 22, 2024

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Rating Action Overview

- Taiwan-based Sino-American Silicon Product Inc. (SAS) mainly focuses on silicon wafer production (around 86% of revenue) and solar power hardware manufacturing (around 8%). The company generated NT$81.9 billion revenue and NT$27.4 billion EBITDA in 2023.
- A good position in the global semiconductor wafer market through subsidiary GlobalWafers Co. Ltd. and strong profitability from semiconductor wafer sales underpins SAS' satisfactory competitive position. A technology gap and less diversified client base and product offering than larger global peers somewhat offset these strengths.
- We see SAS maintaining low debt leverage with strong cash flow over 2024-2025 despite heavy capex and likely acquisitions and investments, supported by a global depositary receipt issuance by GlobalWafers in April 2024. We believe SAS will take adequate measures to manage debt risk if capex or acquisitions exceed our base case, given its low financial risk appetite.
- We assigned our 'twAA-' long-term and 'twA-1+' short-term issuer credit ratings to SAS.
- The stable rating outlook reflects our view that SAS could maintain robust profitability in 2024-2025 with the ratio of debt to EBITDA at 1.1x-1.2x along with a recovery in the global semiconductor market, despite materially higher capex needs.

Rating Action Rationale

A good position in the global semiconductor wafer market and strong profitability from semiconductor wafer sales underpin the ratings. SAS' 46.64% owned subsidiary, GlobalWafers, is the third largest semiconductor wafer producer globally in a fast-growing market featuring high entry barriers and industry concentration. The company's good flexibility and capability in serving clients with more diversified production sites than most of its peers, as well as good cost efficiency enable GlobalWafers to generate above industry average margins and strong free operating cashflow.

In addition, we believe that GlobalWafers could slightly enhance its competitive position over the next two years once it completes a new Taiwan dollar (NT$)100 billion expansion program to increase revenue from advanced products and broaden its market share. This could enable the company to improve its average selling price (ASP) and sustain strong profitability, despite rising competition with significant capacity additions, particularly in China.

We forecast GlobalWafers' semiconductor wafer manufacturing operations will continue to contribute the majority of SAS's revenue and EBITDA over the next few years. We base this on GlobalWafers' good client relationships and planned heavy capital expenditure (capex) to expand its advanced wafer capacity over the next few years. We estimate GlobalWafers accounted for around 86% and over 90% of SAS' revenue and EBITDA, respectively, in 2023. Our view of GlobalWafer's continued prominent contribution to SAS' overall revenue is unaffected by potential small-to-medium acquisitions by SAS over the next two to three years. These will help expand its business portfolio in renewables and the upstream semiconductor supply chain. We estimate that solar cells and modules accounted for about 8% of the group's revenue in 2023, and renewable energy, auto electronics and gallium arsenide wafer foundry services accounting for the rest.

Favorable semiconductor industry outlook could support revenue growth. We see SAS' revenue continuing to grow, mainly through rising sales of advanced wafers along with its significant capacity expansion in advanced silicon wafer production. Booming demand for advanced chips to be used in AI, cloud, and automation applications will stimulate demand growth for advanced silicon wafer used to fabricate advanced process technology chips. In addition, SAS has secured firm orders from key clients through long-term supply agreements for most of its planned new capacity. This will reduce demand risk associated with SAS' aggressive capex plan for 2023-2026. Based on this, we forecast SAS will see revenue grow 11%-12% in 2025 as new capacity gradually enters mass production, compared with 4%-5% growth in 2024.

Rising sales of advanced wafers and recovering utilization could strengthen profitability. We believe that SAS' expansion of its advanced wafer capacity will help support its wafer prices and margins. That's because we believe that SAS will face lighter competition and better pricing power relative to wafers for mature process technology. The revenue contribution from higher-end silicon wafer products, such as 12-inch epitaxy wafers, is likely to materially increase in 2025-2026, particularly with the commissioning of a new plant in the U.S.

In addition, we forecast SAS' gross margin will increase to 44%-45% in 2025 and around 46% in 2026 amid recovering utilization, from around 41% in 2024. Subdued demand from industrials and auto end markets could prolong inventory corrections in the semiconductor supply chain into 2024. This will keep SAS' capacity utilization relatively low, particularly for its 8-inch wafer capacity, which could slightly weaken SAS' profitability further in 2024 before rebounding in 2025.

Solar cell and module business is unlikely to contribute significant revenue and profit growth. We do not expect SAS to invest aggressively to expand its solar cell and module business over the next two to three years. That's because of its weaker scale economy and cost structure than its Chinese peers, as well as a lack of technology differentiation. China currently accounts for around 80% of global production for solar panels and upstream materials. We anticipate SAS' solar cell and module business will remain concentrated in Taiwan, the U.S. and Europe, where high tariffs or other entry barriers restrict the procurement of Chinese solar power equipment. This continuing geographic concentration could significantly constrain SAS' ability to expand this business segment and leave the company vulnerable to likely changes in global geopolitics.

In addition, SAS' cost disadvantage further limits its profitability from the solar equipment segment, given its dependence on government subsidies and protection. We therefore believe SAS will focus more on its downstream renewable energy operations, including the generation and distribution of green power, though we do not expect significant revenue and profit contributions from these over the next two to three years.

SAS to remain prudent in acquisitions and investments as it seeks to expand in the semiconductor supply chain. We anticipate SAS will remain active in sourcing potential acquisition targets to support its expansion, particularly targets in the semiconductor supply chain. SAS has a history of significant investments and acquisitions, including a 30% accumulated stake in specialty gas supplier, Taiwan Specialty Chemicals Corp. in 2021, a 27.6% accumulated stake in gallium arsenide wafer foundry, Advanced Wireless Semiconductor Co. in 2022, and a 24.6% accumulated stake in auto components supplier Actron Technology Corp. in 2023. SAS also made a failed acquisition attempt for Siltronic through GlobalWafers in 2022. We believe that SAS will continue to make similar actions to expand its business portfolio over the next few years.

In addition, SAS could gradually increase its holdings in important investees that it deems have good growth potential. Nonetheless, we do not expect SAS to make large-scale acquisitions, given growing regulatory scrutiny over high-tech mergers and acquisitions by many governments. Instead, we forecast SAS will pursue small-to-medium size investments through a step-by-step approach without a material negative impact on its cash flow.

SAS can maintain low debt leverage despite rising debt for heightened capex. High capex needs will increase SAS' debt over the next two years before material capacity expansion delivers a significant contribution to overall cash flow, particularly from advanced semiconductor wafers. GlobalWafers plans to spend heavily to expand its capacity after it failed to acquire Siltronic. We forecast SAS' capex will increase to NT$55 billion-NT$60 billion in 2024 before falling to NT$20 billion-NT$25 billion in 2025. SAS will mostly spend on expanding wafer capacity at GlobalWafers. However, GlobalWafers has taken measures to limit the financial impact from its high capex needs, including the issuance of global depository shares with proceeds and by acquiring prepayments from its clients through long-term contracts for new capacity. Accordingly, we expect SAS' ratio of debt to EBITDA to increase only moderately to 1.1x-1.2x in 2024-2025 and gradually decline afterwards. This compares with 0.2x-0.3x in 2023.

High concentration in semiconductor wafer business and high customer concentration expose SAS to significant cash flow volatility associated with the cyclical and competitive semiconductor industry. In addition, we believe that the company's limited shareholdings in its key subsidiaries, including GlobalWafers, Actron, Advanced Wireless Semiconductor and Taiwan Specialty Chemicals, suggests higher financial risk at the parent company level than SAS' consolidated credit metrics imply.

Outlook

The stable outlook reflects our view that SAS could sustain its good profitability and limit its debt growth over the next one to two years through strong operating cash flow and its recent equity issue. That's despite heavy capex needs over the period. The outlook also factors in our assumption that SAS will likely engage in small-to medium size acquisitions or increased investments in subsidiaries without significantly weakening its debt leverage. These factors together lead to a moderately increased debt leverage for SAS of 1.1x-1.2x in 2024-2025.

Downward scenario

We may lower the long-term issuer credit rating on SAS if:

- The company's technology positioning materially weakens and induces intense competition and severe pricing pressure from its clients, or from the loss of key customers. Material and sustained deterioration in the company's profitability or market share would indicate such weakness; or
- The ratio of debt to EBITDA remains at above 1.5x without signs of improvement. This could be because SAS' profitability remains materially weaker than our forecast, or if the company engages in acquisitions or investments beyond its financial capacity or undertakes shareholder friendly actions beyond our base case.

Upside scenario

We may upgrade SAS if:

- The company enhances its market position in higher-end silicon wafer products, gains meaningful market share from top-tier clients, and materially narrows its technology and reputation gap with market leaders. An improving average selling price and market share expansion in advanced products would indicate such improvement; and
- At the same time, the company maintains the ratio of debt to EBITDA materially below 1.5x with sustainable free operating cash flow, supported by an improved profit margin and significantly larger revenue scale.

Our Base-Case Scenario

- S&P Global's projection for world real GDP growth of 3.3% in 2024, 3.2% in 2025, and 3.3% in 2026. Steady global economic growth could support SAS' operations over the next two years.
- SAS' total revenue to grow 4%-5% in 2024, as higher revenue contributions from its auto components subsidiary Actron and improving momentum for SAS' renewable energy business offset weaker semiconductor wafer sales. Revenue could grow by 11%-12% in 2025, mainly supported by increasing silicon wafer demand for advanced end applications.
- Revenue from the semiconductor segment could moderately decline by 3%-5% in 2024, mainly reflecting weaker downstream demand for silicon wafers amid a prolonged inventory correction for auto and industrial applications. The segment's revenue could materially grow by 11%-12% in 2025 when the semiconductor industry makes a likely recover and some new silicon wafer manufacturing sites enter mass production.
- Revenue from the renewable energy segment to rise 8%-9% in 2024, supported by improving market conditions in Taiwan. Possible further growth of around 5% in 2025 mostly from rising domestic demand.
- Revenue from auto components to robustly grow by 300%-400% in 2024, mainly due to the full-year consolidation of Actron which SAS acquired in October 2023. Further growth of around 10% in 2025.
- Gross margin before depreciation and amortization to decline 2%-3% in 2024, mainly due to lower utilization of 8-inch wafer capacity amid tepid market demand. Gross margin could grow by 3%-4% along with recovering utilization and growing sales of advanced wafers.
- Expense ratio to slightly improve to 8%-9% in 2024-2026 from around 10% in 2023.
- Total capex will reach NT$55 billion-NT$60 billion in 2024, predominantly for expansion in silicon wafer capacity. Capex will materially decline to NT$20 billion-NT$25 billion in 2025.
- Annual cash outflow for M&As, investments and increasing shareholding of subsidiaries of NT$3 billion in 2024-2025.

- Global depositary shares issuance of around NT$21.8 billion in April 2024.
- Cash dividend payout to remain stable at NT$8 billion-NT$9 billion annually.
- We net 99% of SAS' cash and liquid investments with debt.

Key Metrics

Sino-American Silicon Products Inc.--Forecast summary

Industry sector: Semiconductors

(Mil. NT$)	2022a	2023a	2024e	2025f	2026f
Revenue	81,871.5	81,966.0	85,456.3	95,124.4	103,829.6
EBITDA (reported)	32,690.0	27,305.5	27,309.0	34,209.3	39,452.2
Plus/(less): Other	144.8	137.6	137.6	137.6	137.6
EBITDA	32,834.7	27,443.1	27,446.5	34,346.9	39,589.8
Less: Cash interest paid	(184.6)	(772.7)	(1,452.9)	(1,451.1)	(1,393.8)
Less: Cash taxes paid	(2,848.5)	(6,138.1)	(4,057.3)	(5,332.0)	(6,291.6)
Funds from operations (FFO)	29,801.6	20,532.3	21,936.3	27,563.8	31,904.4
Cash flow from operations (CFO)	38,800.9	20,074.7	24,877.9	27,620.8	30,945.5
Capital expenditure (capex)	13,615.5	37,837.8	59,000.0	24,000.0	15,000.0
Free operating cash flow (FOCF)	25,185.4	(17,763.1)	(34,122.1)	3,620.8	15,945.5
Dividends	8,551.7	8,742.1	8,547.8	8,547.8	8,547.8
Discretionary cash flow (DCF)	16,633.7	(26,505.2)	(42,669.9)	(4,927.1)	7,397.7
Debt (reported)	57,018.7	66,409.8	65,879.7	65,879.7	52,096.0
Plus: Lease liabilities debt	825.0	1,383.7	2,320.5	3,891.7	6,526.8
Less: Accessible cash and liquid Investments	(62,708.9)	(60,094.7)	(36,599.6)	(28,751.8)	(19,459.7)
Plus/(less): Other	--	--	--	--	--
Debt	--	7,698.7	31,600.6	41,019.6	39,163.1
Cash and short-term investments (reported)	83,611.9	61,321.1	36,969.3	29,042.2	19,656.3
Adjusted ratios					
Debt/EBITDA (x)	--	0.3	1.2	1.2	1.0
FFO/debt (%)	N.M.	266.7	69.4	67.2	81.5
DCF/debt (%)	N.M.	(344.3)	(135.0)	(12.0)	18.9
Annual revenue growth (%)	18.9	0.1	4.3	11.3	9.2
EBITDA margin (%)	40.1	33.5	32.1	36.1	38.1

All figures are adjusted by Taiwan Ratings Corp., unless stated as reported. a--Actual. e--Estimate. f--Forecast. NT$-- new Taiwan dollar. N.M.--Not meaningful.

Liquidity

The short-term rating is 'twA-1+'. We assess SAS has adequate liquidity to meet its needs over the 12 months ending June 30, 2025, based on our view that SAS' ratio of liquidity sources to uses will be 1.6x-1.7x during the period when only considering maintenance capex. We expect the company's liquidity sources will continue to exceed uses even if its EBITDA were to decline by 15%. In addition, we view SAS can absorb high-impact, low-probability events with limited need for refinancing, given its high cash balance and prudent financial management.

In our view, SAS has a sound relationship with banks and a generally satisfactory standing in Taiwan's credit markets. This is indicated by the company's relatively low financing cost and multiple funding channels. We also believe that SAS' steady cash flow generation and sizeable cash on hand will continue to support its liquidity. There are no financial covenants on SAS' existing debts.

Principal Liquidity Sources:
- Cash and short-term investments of around NT$74.9 billion as of June 30, 2024.
- Funds from operations of NT$25 billion-NT$26 billion for the 12 months ending June 30, 2025.
- Undrawn committed credit facilities of NT$14 billion-NT$15 billion maturing after June 30, 2025.

Principal Liquidity Uses:
- Long-term debt due in one year plus short-term debt of about NT$36.8 billion over the 12 months ending June 30, 2025.
- Maintenance capex of NT$9 billion-NT$10 billion over the 12 months ending June 30, 2025.
- Cash dividends of NT$8 billion-NT$9 billion over the 12 months ending June 30, 2025.

Rating Score Snapshot

Issuer Credit Rating: twAA-/Stable/twA-1+
Note: All scores are in comparison with global obligors.

Business risk: Satisfactory
- Country risk: Low
- Industry risk: Moderately High
- Competitive position: Satisfactory

Financial risk: Modest
- Cash flow/Leverage: Modest

Anchor: twaa

Modifiers
- Diversification/Portfolio effect: Neutral (no impact)
- Capital structure: Neutral (no impact)
- Financial policy: Neutral (no impact)
- Liquidity: Adequate (no impact)
- Management and governance: Neutral (no impact)
- Comparable rating analysis: Negative (-1 notch)

Stand-alone credit profile: twaa-

Related Criteria & Research

Related Criteria

- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers - December 16, 2014
- Criteria | Corporates | General: Corporate Methodology - January 07, 2024
- Criteria | Corporates | General: Sector-Specific Corporate Methodology - April 04, 2024
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments - April 01, 2019
- General Criteria: National And Regional Scale Credit Ratings Methodology - June 08, 2023
- General Criteria: Country Risk Assessment Methodology And Assumptions - November 19, 2013
- Criteria | Corporates | General: Methodology: Management And Governance Credit Factors For Corporate Entities - January 07, 2024
- General Criteria: Methodology: Industry Risk - November 19, 2013
- General Criteria: Group Rating Methodology - July 01, 2019
- General Criteria: Principles Of Credit Ratings - February 16, 2011
- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings - October 10, 2021

Related Research

- Taiwan Ratings' Ratings Definitions – Nov. 11, 2021
- Full Analysis: GlobalWafers Co. Ltd.

(Unless otherwise stated, these articles are published on www.taiwanratings.com)

Ratings List

New Rating	
Sino-American Silicon Products Inc.	
Issuer Credit Rating	twAA-/Stable/twA-1+