Media Release:

Vanguard International Semiconductor Corp. Assigned 'twA+/twA-1' Ratings; Outlook Stable

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Rating Action Overview

- Taiwan-based Vanguard International Semiconductor Corp. (VIS) has a good market position and competitive technology providing foundry services.
- The company's stable performance with good yield and utilization over the next two years should generate stable operating cash flow to support higher capex needs and sustain a net cash position over the same period.
- VIS' product and client concentration with smaller operating scale, along with weaker pricing power and profitability than leading global peers' temper these strengths. The company's possible technology transition to 12-inch fabs will also bring some downside risks to VIS' stable performance over the longer term.
- We assigned our 'twA+' long-term and 'twA-1' short-term issuer credit ratings to VIS.
- The stable rating outlook reflects our view that VIS' stable performance and cash flow generation will help the company to sustain a net cash position in 2021-2022.

Rationale Action Rationale

Good technology capability providing 8-inch foundry services will help VIS to sustain its market position. VIS has a leading position in foundry services for LDDICs (large panel display driver integrated circuits), supported by the company's comprehensive application coverage, leadership in new technology such as 4K8K, OLED, and gaming. The company's solid customer relationship with technology joint development, service support, a competitive cycle time, and long-term capacity commitment also support its lead position for LDDICs and provide a price premium particularly during the period of tight supply since 2020.

The company also leads in the global market for power discrete foundry services. VIS even provides a guarantee on better-than-parent-company yields for large integrated design manufacturers (IDMs), given their long-term collaboration with the firm. VIS also specializes in several product lines for the relatively fragmented power management IC (PMIC) segment, such as for ultra-high voltage, or requiring high reliability, including auto-electronics-related products. Furthermore, VIS actively engages with its clients on new technologies such as the new semiconductor material gallium nitride. Good prospects for new orders related to this could help VIS enhance its market position over the next few years.

Stable performance could be supported by adequate technology positioning and good execution of strategies. We believe VIS will maintain its competitive cost structure and profit margin over the next two years, supported by its adequate economies of scale, adequate technology positioning and good execution, as well as prudent capacity expansion. VIS does not compete for process technology leadership but instead strives to be competitive in mature technology nodes (particularly 0.18-0.11 micron) and foundries for related specialty products. Such technology positioning and good execution supported compound annual growth rate for revenue of 10.3% in 2009-2020, as well as a stable EBITDA margin of 29%-33% over the past eight years.

VIS specializes in 8-inch fabrication (fab) manufacturing which has supported high and stable utilization and yield in the past few years. By comparison, companies with 12-inch advanced technology nodes demonstrated low utilization and resulting weak profitability when they were late to introduce new technology and lower yield rates compared with the market leader Taiwan Semiconductor Manufacturing Co. Ltd. (TSMC). This is because such companies often serve as second source manufacturers, or worse still miss out on evolving business opportunities.

We believe VIS will maintain its competitive edge in foundry services for specialty products, which will allow the company to benefit from a degree of price premium over the next one to two years, particularly when the market is in tight supply. The company is also likely to develop more specialty process technologies with its clients for relatively mature nodes, in our view. This will help VIS to defend its utilization and average sale price in the longer term, including the possible migration to 12-inch fab manufacturing.

Technology transition to 12-inch fabs could bring some volatility to VIS' currently stable performance. VIS is likely to migrate its process technology to achieve greater cost efficiency and to provide the advanced technology required by downstream applications over the longer term. Accordingly, we see VIS ultimately migrating to 12-inch (below 90 nanometer [nm]) manufacturing to expand its product offerings. This will signify a shift in the company's strategy of focusing on 8-inch specialty IC foundry services and test its performance stability over the longer term.

Mature technology nodes face intense competition under normal business cycles because most global leading competitors also focus in this area to enhance their utilization and profitability. Companies such as TSMC have also built a comprehensive portfolio using specialty processes and have strong technology know-how and readiness for technology transition for their clients, although VIS may not directly compete with TSMC in the same product lines.

Nevertheless, we believe such risk will be manageable over next three to five years, mostly due to the cost competitiveness of 8-inch fabs as well as some technology limitation on the transition to 12-inch fabs. Moreover, we expect VIS to take a prudent approach to embarking on the 12-inch business while at the same time maintaining very low financial leverage.

Smaller operating scale accompanied with product and client concentration limits VIS' business risk profile. Despite the company's good position in certain product lines, VIS has only about 1.5% global revenue share for foundry services. In addition, and similar to other major foundry players, VIS has moderate client concentration with 58% sales from its top 10 clients in 2020. The company also has moderate product concentration in DDIC and PMIC, despite VIS' diversified downstream applications. Such concentration risk could amplify during periods of higher market competition and technology changes, as evidenced by the company's lower utilization rate in 2019 amid lower demand for LDDIC due to the introduction of "gate on array" technology.

However, such concentration risk is likely to decline over the next few years with VIS' diversification in terms of product mix and capacity expansion through internal expansion and acquisitions. These could include the company's penetration into microelectromechanical systems sensor applications through its acquired fab in Singapore. In addition, VIS' geographical sales concentration in Taiwan has improved over the past few years, thanks to its business expansion in China, U.S., and Europe.

Moreover, we believe VIS has satisfactory operational risk management to diversify its manufacturing of major product lines among four different fabs. This will lower the risk of operational interruption, particularly as Taiwan is prone to typhoons and earthquakes.

Sustainable cash flow generation could help VIS maintain very low debt leverage. We expect the company to stay largely debt free on an adjusted basis over the next two to three years, despite its planned increasing capital expenditure (capex) in 2021-2022 to support capacity expansion in response to current market supply tightness. Our view is based on our expectation that VIS will remain focused on specialty mature nodes. At the same time, the company's technology competitiveness in these products could provide VIS with better pricing and utilization and therefore improve its operating cash flow to meet higher capex needs over the next two years.

Outlook

The stable outlook on VIS reflects our view that the company's technology competitiveness and good position to provide 8-inch foundry services for some products should continue to ensure its relatively stable performance and cash flow generation. In addition, we expect VIS' higher revenue growth and improving profit margin under current market undersupply to support its moderately higher capex over the next two years and sustain its net cash position over the period.

Downward scenario

We may lower the long-term rating on VIS if:

- The company has persistent weaker performance and therefore deteriorating market position due to intense competition in the mature nodes, or if the company's failure in technology transition leads to a loss of customers and business opportunities. An EBITDA margin constantly below 20% could represent such a weakening; however, we believe such downside risk is low over the next one to two years, or
- VIS' debt leverage increases significantly such that its ratio of debt to EBITDA remains above 1.5x. This could happen if the company faces persistently insufficient cash flow to support investment in new technology to maintain its competitiveness, or if VIS changes its relatively conservative financial policy by materially increasing its investment, cash dividend policy, or share buybacks.

Upward scenario

Upside potential is also low over the next two years, despite VIS' likely high revenue growth and improving profitability over the period. We may raise the long-term rating on VIS if:

- The company continues to deliver above-average revenue growth and sustains its profitability through industry cycles and transition to newer technology. Under such a scenario, VIS could further improve its performance and stability through a larger operating scale and more diversified product portfolio, such as product offerings from 12-inch technology nodes; and
- VIS maintains its debt-to-EBITDA ratio below 1.5x.

Company Description

VIS is a specialty IC foundry service provider founded in 1994 in Taiwan. The company specializes in 8-inch foundry service for a wide range technologies and products, including panel driver ICs, power management ICs, and power discrete products. VIS has four fabs in Taiwan and Singapore, with capacity of approximately 240k wafers per month.

Our Base-Case Scenario

Macro and industrial assumptions:

- S&P Global Ratings' forecast for world GDP growth of 5.5% in 2021 and 4.2% in 2022.
- S&P Global Ratings' forecast for global IT spending to increase by about 5.8% in 2021, which is in line with projected global GDP growth over the same period, reflecting continued demand from working-from-home.

Company specific assumptions:

- VIS' revenue to grow by about 25% in 2021, followed by 5%-10% growth in 2022.
- The company's capacity will grow mainly in 2022 and 2023 for mid-to-high single digits, following the company's higher investment in 8-inch equipment during 2021-2022.
- The company's utilization will remain very high at nearly 100% in 2021 and 95%-100% in 2022, supported by undersupply for products requiring VIS services.
- Average selling price will grow by about 20% in 2021 and maintain at this level in 2022, reflecting our expectation that favorable market conditions could sustain over the next few quarters.
- We forecast the company's gross margin before depreciation and amortization to be 49%-50% in 2021 and 50%-52% in 2022, supported by the company's very high utilization, improving product mix, as well as expected rising product average selling price under tight supply conditions.
- We assume higher capex over the next two years to support VIS' expansion and equipment upgrade in response to structural market changes. We forecast capex of NT$10.0 billion-NT$10.5 billion in 2021 and NT$10.5 billion-NT$11.5 billion in 2022.
- There will be some working capital inflow in 2021, mostly due to clients' prepayments to secure capacity.
- The announced cash dividend payout ratio is around 90% in 2021. We assume 75% cash dividend payout ratio in later years as the company's earnings are likely to grow over the period

Based on the assumptions, we arrive at the following credit measures:

- EBITDA margin of 38%-39% in 2021 and 39%-40% in 2022.
- Maintain a net cash position in 2021-2022.

- Negative free cash flow of NT$1.0 billion-NT$1.5 billion in 2021 and NT$2.0 billion-NT$2.5 billion in 2022.

Liquidity

The short-term issuer credit rating is 'twA-1'. We believe VIS has strong liquidity, reflecting a ratio of liquidity sources to liquidity uses of 1.5x-1.6x over the 24 months ending December 2022, despite higher capex during the period. We also believe VIS will have positive liquidity sources minus uses, even if EBITDA declined by 30%. Furthermore, VIS has sound relationships with banks and satisfactory standing in local credit markets, which is supported by the company's stable performance and good reputation among Taiwan's tech companies.

In addition, VIS can absorb high-impact, low-probability events without refinancing, given its limited borrowing and relatively high cash on hand. VIS' bank loans carry no financial covenants.

Principle liquidity sources:

- Cash and short-term investment of NT$13 billion as of the end of 2020.
- Funds from operations of NT$13.5 billion-NT$14.5 billion in 2021, and NT$15 billion-NT$16 billion in 2022.
- Expected working capital inflow of NT$0.5 billion-NT$1.0 billion in 2021, and no major outflow in 2022.

Principle liquidity uses:

- Debt maturities of NT$2.3 billion in 2021.
- Capex of NT$10.0 billion-NT$10.5 billion in 2021 and NT$10.5 billion-NT$11.5 billion in 2022.
- Cash dividend payout of about NT$5.7 billion in 2021 and NT$6 billion-NT$6.5 billion in 2022

Rating Score Snapshot

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

Business risk: Fair
- Country risk: Intermediate
- Industry risk: Moderately high
- Competitive position: Fair

Financial risk: Modest
- Cash flow/Leverage: Modest

Anchor: twa+

Modifiers

- Diversification/Portfolio effect: Neutral (no impact)
- Capital structure: Neutral (no impact)
- Financial policy: Neutral (no impact)
- Liquidity: Strong (no impact)
- Management and governance: Satisfactory (no impact)
- Comparable rating analysis: Neutral (no impact)

Stand-alone credit profile: twa+

Related Criteria & Research

Related Criteria

- General Criteria: Methodology For National And Regional Scale Credit Ratings - June 25, 2018
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities - November 13, 2012
- General Criteria: Methodology: Industry Risk - November 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions - November 19, 2013
- General Criteria: Group Rating Methodology - July 01, 2019
- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers - December 16, 2014
- Criteria | Corporates | General: Corporate Methodology - November 19, 2013
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments - April 01, 2019
- General Criteria: Principles Of Credit Ratings - February 16, 2011

Related Research

- Taiwan Ratings' Ratings Definitions – August 10, 2020

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

Ratings List

New Ratings

Vanguard International Semiconductor Corp.	
Issuer Credit Rating	twA+/Stable/twA-1

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.taiwanratings.com for further information. Complete ratings information is available to subscribers of Rating Research Service at rrs.taiwanratings.com.tw. All ratings affected by this rating action can be found on Taiwan Ratings' public website at www.taiwanratings.com.