Media Release

Four Core Units Of Formosa Plastics Group Upgraded To 'twAA/twA-1+' On Improved Debt Leverage; Outlook Stable

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Overview

- Taiwan-based FP group has reduced leverage significantly over the past two to three years through strong operating cash flow. Meanwhile, the improving industry structure in China and the group's substantial progress to differentiate its products could lead to more sustainable profits and cash flow as a buffer against the next industry downturn.
- We believe that the group's low leverage and improved operating cash flow provide sufficient financial buffer to fund its large expansion in the U.S. and weather market volatility while still maintaining the ratio of FFO to debt above 45% during the expansion period.
- We are raising the long-term issuer rating on the four core members of the FP group to 'twAA' from 'twAA-' and affirming the 'twA-1+' short-term rating. At the same time, we are also raising the issue ratings on the senior unsecured corporate bonds issued by the four core companies to 'twAA' from 'twAA-', and issue rating on the senior unsecured notes issued by Formosa Group (Cayman) Ltd. and unconditionally and irrevocably guaranteed by the four core companies to 'twAA' from 'twAA-'.
- The rating outlook is stable to reflect our view that the group will maintain strengthened profitability and satisfactory cash flow with the ratio of FFO to debt above 45% for extended period.

Rating Action

Taiwan Ratings Corp. today raised its long-term issuer credit rating on the four core members of Formosa Plastics group (FP group) to 'twAA' from 'twAA-' and affirming the 'twA-1+' short-term rating. The four companies are **Formosa Plastics Corp., Nan Ya Plastics Corp., Formosa Chemicals & Fibre Corp.,** and **Formosa Petrochemical Corp.** At the same time, we raised the issue ratings on the senior unsecured debts issued by the four core companies to 'twAA' from 'twAA-', and issue rating on the senior unsecured notes issued by Formosa Group (Cayman) Ltd. and unconditionally and irrevocably guaranteed by the four core companies to 'twAA' from 'twAA-'.

Rationale

The upgrade reflects our view the FP group has lowered its financial leverage, which it could sustain over the next one to two years supported by improved profitability and cash flow generation. This enhanced financial headroom should help absorb potential volatility in the petrochemical market over longer period. It could also fund the group's core and potential non-core investments as well as its upcoming large investment in the U.S., while still keeping the group's ratio of funds from operations (FFO) to debt consistently above 45% throughout business cycles.

FP group's profitability and cash flow are likely to remain relatively strong over the next one to two years because moderate improvement in global demand should help reduce oversupply in the chemical industry. China's tightening environmental standards have also helped to reduce inefficient capacity and partly alleviated oversupply in the region. Moreover, the group's efforts to enhance its product mix with more high value-added products should help to withstand the negative effect of persistent oversupply for most commodity chemicals in the region.

The group's low-cost competitiveness, underpinned by its vertical integration and economies of scale could partly offset the impact from the recent rise in oil prices and raw material costs, and help to offset the impact from narrowing product spreads, especially for the mid-to-downstream products. We also expect FP group's limited direct trade exposure to China and the U.S., as well as the group's multiple manufacturing bases at home and in the U.S. to somewhat safeguard its operating performance in those regions. However, it will be difficult for the group to avoid the negative effect of escalating Sino-U.S. trade friction on manufacturing costs and downstream demand.

A gradual shift in the loan guarantees on FP group's Vietnam-based steel project from core units to non-FP group shareholders could help reduce the group's financial leverage over the next few years. The Formosa Ha Tinh Steel Corp. in Vietnam continues to ramp up production after the second blast furnace commenced operation amid recovering regional demand, which could also help to reduce the steelmaker's financial risk over the next one to two years.

The FP group is likely to increase its long-term capital expenditure after 2019, to support significant expansion in China and the U.S. In particular, the group plans to build a shale gas-based chemical complex in Louisiana, U.S., costing more than US$10 billion over two phases from 2019-2026. This project and constant expansion in Asia could increase the group's debt leverage; however, they could also increase geographical and feedstock diversity, enabling more stable profitability in the longer term.

Nonetheless, FP group's reduced debt leverage and sustainable profitability should provide sufficient headroom to support its expansion projects without material impact on the group's credit metrics. In addition, the group is likely to take measures during the period of high capital expenditure, to maintain modest debt leverage if the industry faces a downturn. This could include a reduction in cash dividends. We expect the group's FFO to be New Taiwan dollar (NT$) 180 billion-NT$200 billion annually in 2019-2020, helping the group maintain a strong ratio of FFO to debt at 60%-70% in 2018-2019 and above 45% during the next capital expenditure cycle.

Our base case assumes:

Macroeconomic and industry related:

- Growth in chemical demand to remain highly correlated with macroeconomic growth.
- Oil and chemical product prices to remained relatively stable in 2018, which could continue for at least the next few quarters. Chemical companies continue to record product margins above mid-cycle levels. However, a recent increase in raw material costs could somewhat lower product spreads for mid-to-downstream products.
- Global capacity expansion especially in the U.S. is likely to materialize from the second half of 2018, which could pressure chemical spreads over the mid to long term. However, growing global demand could absorb capacity additions from gas-based production in the U.S. (assuming 80% utilization).

- Moderate recovery in the global economy, particularly the U.S., still-strong GDP growth in China, and the removal of excess capacity in China are likely to support growth and stability in chemical markets across Asia.

Business assumptions for the FP group:

- Revenue for the four core companies will increase by about 15% in 2018 due to higher product prices and moderate improvement in demand. Revenue will decline by a mid-single-digit in 2019-2020, given our expectation of falling crude oil prices.
- FPCC's refining utilization rate will remain high at 89%-92% in 2018-2019 compared with 87% in 2017 and a very high 92.5% in the first half of 2018; while the olefin run rate will remain at a high 95%-97% over the next two years compared with about 95% in 2017.
- FP group will maintain its EBITDA margin at about 20% in 2018 and at 17%-18% over 2019-2020, albeit down from 21.1% in 2017, given relatively stable market conditions, increasing sales from higher value-added products, and more efficient manufacturing process.

Cash flow and leverage assumptions for the FP group:

- Capital expenditures plus investments will be moderately higher at NT$75 billion-NT$80 billion in 2018-2019. Expenditure on the Louisiana-based project will begin from 2019, but the majority will occur in 2021-2023.
- The group's guarantee on the Vietnam steel mill project will decrease gradually from about NT$140 billion as the end of June 2018 to about NT$120 billion in 2020.
- Cash dividend payout will remain at about 70% of the previous year's net income over the next two years.

Based on these assumptions, we arrive at the following credit measures for the FP group:

- The ratio of FFO to debt will sustain at 60%-70% in 2018-2020, compared with 67% at the end of 2017.

Liquidity

The short-term rating is 'twA-1+'. We believe the FP group has strong liquidity to meet its needs over the next 24 months with the ratio of liquidity sources to liquidity uses at 1.6x-1.7x. The group is likely to maintain positive liquidity sources less uses, even if forecast EBITDA declines by 30%. In addition, we believe that the group's solid banking relationships and generally high credit standing will support its financial flexibility, as evidenced by its very low credit spread and large amount of undrawn credit lines. The FP group's strong performance should easily meet the requirements of loose financial covenants over the next two years, in our view.

Principle liquidity sources include:

- Cash and short-term investments of NT$278 billion at the end of June 2018.
- FFO of NT$190 billion-NT$220 billion per year in 2018-2019.
- Undrawn long-term credit facilities of NT$146 billion at the end of June 2018.

Principle liquidity uses includes:

- Debt maturity plus short-term debt repayment for about NT$141 billion up to June 2019.
- Capital expenditures plus long-term investments of about NT$78 billion in 2018 and NT$88 billion in 2019.
- Cash dividend payout for about 70% of the previous year's net income.

Outlook

The stable rating outlook reflects our view that the FP group will maintain its improved profitability and cash flow at a satisfactory level through business cycles and supporting the ratio of FFO to debt above 45% during the period. The group's current financial headroom should be sufficient to absorb potential market volatility, as well as its large outlay at its shale gas-based chemical complex in the U.S. and other expansions over the next two to three years.

Downward scenario

We may lower the long-term rating on the core group members if the FP group's ratio of FFO to debt falls close to 45% for an extended period. Scenarios that could lead to this are: (1) market conditions worsen substantially due to a much weaker regional economy than we currently forecast; or (2) the group takes on more aggressive cash dividend payouts, capital expenditures, or other investments substantially beyond our base case.

Upward scenario

Industry volatility and geographic concentration constrain the ratings. We could raise the rating on the core group members if the FP group can make material improvement in its business scale, geographic diversity, and performance stability. This could be achieved when the group's U.S. investment results in a major contribution to the group's revenue and profit. At the same time, the group would need to maintain its financial discipline, especially on cash dividend payments, debt appetite, and growth strategy, to hold the ratio of FFO to debt above 45% on a sustainable basis.

Rating Score Snapshot

Issuer Credit Rating: twAA/Stable/twA-1+

Note: All scores are in comparison with global obligors

Business risk: Satisfactory

- Country risk: Intermediate
- Industry risk: Moderately high
- Competitive position: Strong

Financial risk: Modest

- Cash flow/Leverage: Modest

Anchor: twaa-

Modifiers

- Diversification/Portfolio effect: Neutral (no impact)
- Capital structure: Positive (+1 notch)
- Liquidity: Strong (no impact)
- Financial policy: Neutral (no impact)
- Management and governance: Satisfactory (no impact)
- Comparable rating analysis: Neutral (no impact)

Stand-alone credit profile (SACP): The core operating units of the FP group have not been assigned an SACP.

- Group credit profile: twaa
- Entity status within group: Core

Issue Ratings

Capital Structure

Formosa Plastics Corp.'s capital structure comprises NT$8 billion secured debt, NT$109 billion unsecured debt at the parent level, and NT$17.1 billion unsecured debt issued by the company's subsidiaries as of the end of 2017. The unsecured debt at the parent level includes guaranteed debt to other related entities.

Nan Ya Plastics Corp.'s capital structure comprises NT$4.8 billion secured debt, NT$137.5 billion unsecured debt at the parent level, and NT$12.9 billion unsecured debt issued by the company's subsidiaries as of the end of 2017. The unsecured debt at the parent level includes guaranteed debt to other related entities.

Formosa Chemicals & Fibre Corp.'s capital structure comprises NT$9.8 billion secured debt, NT$141.3 billion unsecured debt at the parent level, and NT$43.6 billion unsecured debt issued by the company's subsidiaries as of the end of 2017. The unsecured debt at the parent level includes guaranteed debt to other related entities.

Formosa Petrochemical Corp.'s capital structure comprises NT$10.4 billion secured debt, and NT$74.8 billion unsecured debt as of the end of June 2017. The unsecured debt at the parent level includes guaranteed debt to other related entities.

Analytical conclusions

Our senior unsecured issue-level ratings on the companies' bonds are equated with our 'twAA' issuer credit ratings on the four core companies. This is because the companies' debt leverage is low and we assess the financial risk profiles as modest, suggesting low subordination risk to senior unsecured debt holders.

Related Criteria

- Criteria - Corporates – General: Reflecting Subordination Risk In Corporate Issue Ratings – March 28, 2018
- General Criteria: Guarantee Criteria - October 21, 2016
- Criteria - Corporates - General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers - December 16, 2014
- Criteria - Corporates - Industrials: Key Credit Factors For The Oil Refining And Marketing Industry - March 27, 2014
- Criteria - Corporates - Industrials: Key Credit Factors For The Commodity Chemicals Industry - December 31, 2013
- Criteria - Corporates - General: Corporate Methodology: Ratios And Adjustments - November 19, 2013
- General Criteria: Methodology: Industry Risk - November 19, 2013
- Criteria - Corporates - General: Corporate Methodology - November 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers - November 13, 2012
- General Criteria: Country Risk Assessment Methodology And Assumptions - November 19, 2013
- General Criteria: Methodology: Timeliness Of Payments: Grace Periods, Guarantees, And Use Of 'D' And 'SD' Ratings - October 24, 2013
- General Criteria: National And Regional Scale Credit Ratings - September 22, 2014
- General Criteria: Use Of CreditWatch And Outlooks - September 14, 2009
- General Criteria: Group Rating Methodology - November 19, 2013
- Understanding Taiwan Ratings' Rating Definitions, www.taiwanratings.com - June 26, 2018

(Unless otherwise stated, these articles are published on www.standardandpoors.com, access to which requires a registered account)

Ratings List

Upgraded

	To	From
Formosa Plastics Corp.		
Nan Ya Plastics Corp.		
Formosa Chemicals & Fibre Corp.		
Formosa Petrochemical Corp		
Issuer Credit Ratings	twAA/Stable/twA-1+	twAA-/Positive/twA-1+
Senior unsecured issue credit rating	twAA	twAA-